Inclusive Education and Attitudes toward Diversity

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Abstract

Scientists have long investigated techniques for reducing biases and negative stereotypes against minority groups. Several studies provide support for contact theory, which suggests that positive attitude change can be promoted when individuals have direct, positive contact with members of a minority group. According to contact theory, attitudes are most beneficially affected when members of the minority group are perceived as equal in status, have enough time and contact to form significant relationships, and work towards a common goal. The present study assessed whether these principles might apply in a real-world high school environment. We examined attitudes about diversity in a high school that had recently implemented inclusion; that is, students with disabilities were fully included in all academic, social, and athletic facets of the community. We used the Miville-Guzman Universality Diversity Scale to assess perceptions and attitudes about diverse peoples and experiences. We evaluated attitudes for typical students who had direct contact with students who had special needs, indirect contact, or extremely limited contact. We also compared attitudes in the high school population to those of a college sample. Results support the basic tenets of contact theory in suggesting that frequent, direct interaction with diverse students is associated with attitudes toward diversity that are significantly more positive.
Negative stereotypes and prejudices against minority groups are pervasive in our society (Branscombe, Schmitt and Harvey 1999; Gartner 1986; Hinshaw 2005; Priest 1991), and can lead to a variety of negative outcomes, including discrimination in the workplace, inequities in educational and social opportunities, diminished social relations, and even increases in violence and criminal behaviors. Given the deleterious effect of prejudice and discrimination across social domains, researchers have investigated mechanisms for reducing these biases and promoting tolerance of diversity. One technique that has proven effective in reducing biases in some domains is direct, positive contact with minority groups (Allport 1954; Slininger, Sherrill, and Janowski 2000). Contact theory postulates that positive contact between different groups of people can reduce negative biases, stereotyping, expectations, and discriminatory behaviors (Allport 1954; Roper 1990). It is important to note that mere physical contact or integration may be insufficient to foster relationships or evoke attitude change (Nisbet 1992; Taylor, Kilken, and Knoll 1987); rather, several key factors influence whether contact among groups will create favorable change in attitudes or behaviors. Interactions that are most likely to promote positive outcomes include those in which all individuals share an equal status, those in which individuals can engage in a common goal, and those that allow individuals to get to know each other well (Allport 1954; Cook 1962; Devine and O’Brien 2007; Hughes et al. 2002; Tripp, French, and Sherrill 1995).

These positive changes have been observed with racial relations (Emerson, Kimbro, and Yancey 2002; Spanierman et al. 2008; Van Bavel and Cunningham 2008), and of central interest to our work, with acceptance of individuals with disabilities (Findler and Vardi 2009; Floyd et al. 2009; Hughes et al. 2002; Kishi and Meyer 1994). Growing evidence suggests that acceptance of individuals with disabilities is facilitated when schools, social activities, and sports teams are “inclusive”; that is, when individuals with and without disabilities participate together as equals. Although physical integration of individuals with disabilities into activities may not be sufficient for attitude change, environments that offer opportunities for education about disabilities or for cooperative, collaborative interaction can significantly improve acceptance of disabilities (Sable 1995). For
example, Wilhite, Devine, and Goldberg (1999) observed a high degree of social acceptance and positive perceptions of disability when teens participated in inclusive activities that featured common interests and reciprocal relationships. Similarly, children with and without intellectual disabilities who participated in an inclusive summer camp were equally likely to be nominated by their nondisabled peers in the camp as “friends to hang out with” and as “new friends” (Siperstein, Glick, and Parker 2009). Additionally, 80% of college students who participated in Best Buddies, a national program that fosters inclusive, reciprocal friendships, developed a more positive attitude about people with intellectual disabilities and a better understanding of the challenges they face (Hardman and Clark 2006). Across other studies, there is evidence that inclusive experiences can debunk myths and stereotypes (Bedini 2000; Devine and Lashua 2002; Devine and Wilhite 2000), and foster friendships and social interactions (Bedini 1993; Edwards and Smith 1989; Kalyvas and Reid 2003).

In addition, there is evidence that inclusive experiences promote social and moral development for typical teenagers. In a study by Findler and Vardi (2009), adolescents who had a sibling with intellectual disabilities demonstrated social growth and cognitive resources that were not typically shown by others their age, took on more responsibility, developed significant relationships, were more sensitive to others, and reported getting the most out of their lives and experiences. Finally, data indicate that inclusion also provides social benefits for individuals with disabilities in a direct fashion, as it can lead to improved communicative and social skills, which in turn improve success in other social contexts (Floyd et al. 2009).

These empirical findings suggest that reductions in biases for individuals with disabilities can occur when experiences allow for direct contact of an interactive nature, and the data are consistent with contact theory in suggesting that direct interaction in inclusive settings helps foster nonprejudicial attitudes toward people with intellectual disabilities. The purpose of the current study was to examine the types of interactions that occur in a naturalistic high school setting, and to understand the specific interactions with people with intellectual disabilities that foster reductions in prejudicial attitudes and promote greater tolerance and acceptance of diversity. More specifically, we
compared the attitudes and perceptions of typical high school students who had extensive, direct contact with individuals who had disabilities to those of students who had indirect contact, and to those who had limited contact. Our direct contact group (Options Scholars/Peer Buddies) consisted of students without disabilities who serve as academic and/or social buddies for students with disabilities enrolled in an inclusive program called Options. The students in the direct contact group not only had frequent interactions with students with disabilities, but also participated in an intensive disabilities awareness program that included learning about disabilities, participation in simulation activities, and reading materials on inclusion for a full semester. Our indirect contact group included typical high school students who were enrolled in one or more inclusive classes. Thus they interacted with at least one student with a disability in at least one of their classes at school. Finally, our limited contact group included typical high school students who attended an inclusive school, but neither had classes nor interacted in a formal fashion with students who had disabilities. All students at the school participated in a week-long diversity awareness program in a theology class.

In some previous research (Hardman and Clark 2006; Siperstein et al. 2009) the impact of inclusion was examined without a control group for comparison. In the current study, we contrasted attitudes about diversity of typical high school students who had direct and frequent contact with students who had disabilities to those of typical high school students who had only indirect contact or limited contact with students who had disabilities. Furthermore, we also included a comparison group of typical college students who had limited or no contact with individuals who had disabilities. All participants completed the Miville-Guzman Universality-Diversity Scale (M-GUDS; Miville et al. 1999), a 45-item survey used to measure Universal-Diverse Orientation (UDO). UDO provides an index of an individual’s attitudes towards others, and it assesses whether individuals are both aware of and accepting of differences (racial, social, cultural, etc.).

Method

Participants

Participants were recruited from two different samples: (a)
students from a private Catholic high school (ages 14-18 years) who participated as one way of earning service credits; and (b) college students (ages 18-22 years) who participated as one way of earning course credit. High school students were recruited through letters addressed to parents and to students. Recruitment letters were sent to 747 students, and 196 completed the survey, for a response rate of 26%. College students were recruited via a web-based program that all introductory psychology students use to register for scientific studies. The sample of college students included 281 participants. Participation for both samples was entirely voluntary, and students could satisfy their course or service credits in a variety of other ways.

The high school sample included 95 women (48%) and 100 men (52%), with one person failing to identify gender. The vast majority of the high school participants were Caucasian (89%), with 3% African American, 2% Hispanic, 3% Asian, and 3% unclassified. The high school sample included 25 students (13%) who had frequent and direct contact with students with disabilities through a program called Options Scholars/Peer Buddies. The Options Scholars/Peer Buddies program was a competitive program to which students voluntarily applied to serve as mentors. Students selected for the program had regular, one-on-one contact with peers with disabilities, and collaborated with them on academic or service projects, and/or participated in social events (e.g., sporting events, dances, dining out, etc). The selected students also participated in a semester-long diversity awareness curriculum. The remaining 170 students had either indirect contact (that is, they were enrolled in at least one academic course with a student with special needs) or limited contact (that is, they did not interact with students with disabilities in academic courses or extracurricular events, but attended the same school). All students at the high school participated in a week-long diversity awareness program in a theology course.

The college sample included 216 women (77%) and 65 men (23%). As with the high school sample, the vast majority of the college participants were Caucasian (91%), with 3% African American, 2% Asian, 1% Hispanic, and 3% failing to report information on ethnicity. Individuals with disabilities did not attend this institution, and students in this sample had neither regular direct nor indirect contact with
individuals with disabilities.

Materials

Materials for the study included the Miville-Guzman Universality-Diversity Scale (M-GUDS; Miville et al. 1999), a 45-item survey used to measure Universal-Diverse Orientation (UDO), which is a construct for individuals’ attitudes toward others in which both similarities and differences between the self and other person are both recognized and accepted. For the M-GUDS survey, participants read statements such as “I place a high value on being deeply tolerant of others’ viewpoints,” and rated their agreement with each statement on a 6-point Likert-type scale ranging from strongly disagree (1) to strongly agree (6). The M-GUDS provides not only an overall assessment of UDO, but also consists of three subscales that evaluate the affective, behavioral, and cognitive components of UDO (Fuertes et al. 2000).

The affective subscale assesses a Sense of Connection (SC) with others, and reflects the degree of comfort with diverse individuals. Items on this subscale include statements such as “Getting to know someone of another race is generally an uncomfortable experience for me” and “I feel a sense of connection with people from different countries.” The behavioral subscale evaluates level of interaction with diverse people and activities, and is referred to as Diversity of Contact (DC). Items on this subscale include statements such as “I attend events where I might get to know people from different racial backgrounds” and “I would be interested in participating in activities involving people with disabilities.” The cognitive subscale, referred to as Relativistic Appreciation (RA), examines one’s appreciation of similarities and differences across individuals, and the ways that these differences impact one’s own development. Items on this subscale include statements such as “Knowing how a person differs from me greatly enhances our friendship” and “It’s often hard to find things in common with people from another generation.” Each of the subscales includes items that are phrased positively and negatively to help eliminate potential bias. Negatively phrased items are reversed scored for the data analysis.

In addition to the M-GUDS, all participants were asked to report demographic information (e.g., gender, year in school, race).
Furthermore, high school participants were also asked to report information regarding extracurricular activities (e.g., athletic teams, honor societies, service groups).

**Procedure**

High school students received letters from the primary investigator once parental permission had been obtained. College participants were recruited through Experimetrix, an online experiment registration system. All participants were informed that the study involved a survey that assessed attitudes and behaviors about diversity. Individuals who participated did so through an on-line platform (SurveyMonkey). Participants were allowed to complete the survey at any computer with internet access, and responses were collected from each sample population for two weeks. All responses were confidential and anonymous. College participants were given credit through Experimetrix, and high school students used a numeric code to register for credit. All participants read and signed an on-line consent form, and then completed the M-GUDS on their own time. After completing the survey, participants read an online debriefing statement explaining the purpose of the study.

**Results**

Mean total UDO scores, as well as the scores on the three subscales (SC, RA, and DC) are reported for all participants in the table below. Our analyses were aimed at evaluating scores on these scales for youths involved in different types of social and academic activities, with the goal of understanding the kinds of interactions that most successfully promote tolerance and acceptance.

Our first analyses were conducted to determine whether frequent, direct contact was associated with more accepting attitudes toward diversity. Here, we compared the UDO scores of high school students who were Options Scholars/Peer Buddies to those who were not (see Table 1). Results showed that high school students who participated in Options Scholars/Peer Buddies had significantly higher scores on the DC scale ($t(178) = 5.44, p < .001$), the RA scale ($t(178) = 5.14, p < .001$), the SC scale ($t(178) = 5.19, t < .001$), and total UDO measure ($t(178) = 5.91, p < .001$), relative to high school students who didn’t
Mean Total UDO and Subscale Scores for High School and College Students

<table>
<thead>
<tr>
<th>SAMPLE</th>
<th>SC Scale</th>
<th>RA Scale</th>
<th>DC Scale</th>
<th>Total UDO</th>
</tr>
</thead>
<tbody>
<tr>
<td>High School (All)</td>
<td>62.7</td>
<td>58.6</td>
<td>57.2</td>
<td>178.5</td>
</tr>
<tr>
<td>Direct Contact¹</td>
<td>72.9</td>
<td>66.3</td>
<td>68.0</td>
<td>207.5</td>
</tr>
<tr>
<td>No Direct Contact²</td>
<td>60.9</td>
<td>57.3</td>
<td>55.4</td>
<td>174.6</td>
</tr>
<tr>
<td>Indirect Contact³</td>
<td>60.8</td>
<td>57.0</td>
<td>55.0</td>
<td>172.8</td>
</tr>
<tr>
<td>Limited Contact⁴</td>
<td>60.9</td>
<td>57.6</td>
<td>55.8</td>
<td>174.3</td>
</tr>
<tr>
<td>HS Male</td>
<td>58.7</td>
<td>55.9</td>
<td>53.2</td>
<td>167.8</td>
</tr>
<tr>
<td>HS Female</td>
<td>67.3</td>
<td>61.8</td>
<td>61.9</td>
<td>190.9</td>
</tr>
<tr>
<td>College Students (All)</td>
<td>66.4</td>
<td>62.3</td>
<td>63.6</td>
<td>192.3</td>
</tr>
<tr>
<td>Male</td>
<td>62.4</td>
<td>59.9</td>
<td>62.9</td>
<td>185.3</td>
</tr>
<tr>
<td>Female</td>
<td>67.6</td>
<td>63.0</td>
<td>63.9</td>
<td>194.5</td>
</tr>
</tbody>
</table>

¹The Direct Contact group included typical high school students who served as Options Scholars/Peer Buddies. ²The No Direct Contact group included both the Indirect Contact and the Limited Contact groups. ³The Indirect Contact group included high school students who were enrolled in at least one inclusive class. ⁴The Limited Contact group included high school students who were neither in an inclusive class nor in the Options Scholars/Peer Buddies.

participate in this program. Thus, scores were higher on every measure for students who experienced direct contact with peers with special needs, relative to those with only indirect or limited contact.

Our second set of analyses examined whether having indirect contact, that is, having at least one class with a peer who has special needs, was associated with reduced prejudice and more accepting attitudes toward others. For these analyses we contrasted
UDO measures for students who were enrolled in classes with peers who had special needs to those for students who did not participate in any inclusive classes. Scores for the typical high school students who had taken classes with students with intellectual disabilities did not differ significantly from the scores for students who were not enrolled in inclusive classes, and this was true for all measures (DC scale: $t(178) = -0.167, p = 0.867$; SC scale: $t(178) = -0.006, p = 0.995$; RA scale: $t(178) = -0.060, p = 0.952$; total UDO measure: $t(178) = -0.087, p = 0.931$). Thus, indirect contact was not associated with any change in UDO scores relative to limited contact.

Within the high school sample, we also examined whether different activities or social clubs (e.g., National Honor Society, athletic teams, student government, retreat team, foreign language clubs, etc.) influenced UDO scores. Two activities were associated with higher UDO scores: membership in the National Honor Society and participation in religious retreats. Students who were members of the National Honor Society showed significantly higher scores than nonmembers on the DC scale ($t(178) = 2.38, p = 0.018$), and total UDO measure ($t(178) = 2.05, p = 0.042$). Similarly, high school students who had attended a religious retreat had significantly higher scores on the DC scale ($t(178) = 4.48, p < .001$), SC scale ($t(178) = 3.42, p = .001$), RA scale ($t(178) = 3.64, p < .001$), and total UDO measure ($t(178) = 4.29, p < .001$), than high school students who hadn’t gone on a religious retreat.

Thus, our data suggest that participation in three different types of activities (Options Scholars/Peer Buddies, National Honor Society, and religious retreats) was associated with higher UDO scores. One question concerns whether the same students were likely to participate in these different activities. A Pearson Chi-Square test indicated that participation in the Options Scholars/Peer Buddies was independent of membership in the National Honor Society ($\chi^2(1, 196) = 0.0582, p = 0.44$). However, those who participated as Options Scholars/Peer Buddies were likely to attend a religious retreat ($\chi^2(1, 196) = 17.6, p < .001$), as were members of the National Honor Society ($\chi^2(1, 196) = 7.7, p < .01$).

We evaluated whether scores for our high school students were different from those of a college sample, as one might expect tolerance
and diversity acceptance to increase with age and experience. Results showed that the college students had significantly higher scores on the DC scale ($t(459) = -6.43, p < .001$), RA scale ($t(459) = -4.98, p < .001$), SC scale ($t(459) = -3.73, p < .001$), and total UDO measure ($t(459) = -5.66, p < .001$) than the full sample of high school students. However, scores for the college sample were significantly lower across all measures relative to the sample of Options Scholars/Peer Buddies who had direct, frequent contact with students with disabilities (DC scale: $t(303) = 2.26, p = .024$; SC scale: $t(303) = 3.44, p = .001$; RA scale: $t(303) = 2.91, p = .004$; total UDO measure: $t(303) = 3.29, p = .001$).

Finally, we evaluated whether there were gender differences in UDO measures within each of our samples. For high school students, females had significantly higher scores on the DC scale ($t(177) = -5.50, p < .001$), RA scale ($t(177) = -4.79, p < .001$), SC scale ($t(177) = -5.23, p < .001$), and total UDO measure ($t(177) = -5.84, p < .001$), relative to high school males. Similarly, college females had significantly higher scores on the RA scale ($t(279) = -3.14, p = .002$), SC scale ($t(279) = -3.87, p < .001$), and total UDO measure ($t(279) = -2.82, p = .005$) than college males.

**Discussion**

The purpose of the current study was to examine the kinds of interactions with individuals who have intellectual disabilities that most successfully promote tolerance and acceptance of diversity. More specifically, this study compared attitudes about diversity between high school students who had direct contact (through a program called Options Scholars/Peer Buddies), indirect contact (through enrollment in an inclusive class), or limited contact with students who had disabilities. A comparison group of college students who had limited or no contact with individuals who had disabilities was also included in the study. All participants completed the M-GUDS, a survey that measures UDO, which is a construct that assesses individual’s attitudes toward differences (racial, social, cultural, etc.) in others.

The results from the present study demonstrate that direct contact with students who have disabilities was associated with more accepting attitudes toward diversity, and this was true even when comparing
students who experienced direct contact (as Options Scholars/Peer Buddies) to those who experienced indirect contact (as classmates). Students who experienced direct contact demonstrated reliably higher UDO scores than either the indirect or the limited contact groups. We note that our direct contact group self-selected their participation as Option Scholars/ Buddies, and thus we caution that there is no direct evidence of a causal link between direct contact and attitude change from our data. However, our results are consistent with the suggestion that inclusion in a school setting can promote greater tolerance of diversity and acceptance, and that the strongest positive changes may be associated only with individuals who experience direct and frequent contact with students who have disabilities. These data support earlier research on contact theory that suggests that mere exposure to diversity is insufficient in altering attitudes; rather, individuals from diverse backgrounds must interact in a way in which all members of the group are equals, a common goal is established, and group members get to know each other well (Allport 1954; Baumeister and Bushman 2008; Cook 1962; Hughes et al. 2002; Tripp et al. 1995). Students who participated as Options Scholars/Peer Buddies interacted multiple times each week for a full semester with students who had disabilities, and many of these interactions were collaborative/interactive in nature. In addition, the Options Scholars/Peer Buddies also completed a semester-long curriculum aimed at educating students about disabilities and the cognitive, social, cultural, and moral issues related to students with special needs.

In contrast with the robust benefit of direct contact, indirect contact with students who have disabilities was not associated with higher UDO scores relative to limited contact. Although these findings are consistent with the premise that mere physical integration may be insufficient to foster attitude change, it is important to note that the failure to find a difference between the indirect contact and the limited contact groups may reflect the fact that both groups showed some benefit of their experience in an inclusive school. Both the indirect and limited contact groups participated in a week-long diversity awareness program, and both had some interaction with students with disabilities. Thus, it may be the case that students in both groups benefitted from the inclusive nature of the school. Future comparisons
with non-inclusive high schools will allow a more appropriate assessment of the benefits of inclusion for typical students who have indirect or limited contact with students who have special needs.

In addition to direct contact with students who have disabilities, membership in the National Honor Society and participation in religious retreats were also associated with reduced prejudicial attitudes toward diversity in others. These findings suggest that high academic achievement and active participation in faith-based activities are associated with more accepting attitudes toward diversity. Further analyses revealed that the students who have direct contact with students who have disabilities (through the Options Scholars/Peer Buddies program) tend not to be the same students who are members of National Honor Society, a finding that suggests that the impact of direct contact on attitudes is independent of high academic achievement. A significant relationship was found, however, between direct contact with students who have disabilities and participation in religious retreats, suggesting that the same students who tend to participate in Options Scholars/Peer Buddies also tend to go on religious retreats. This might indicate that individuals who have stronger religious beliefs have more accepting attitudes of diversity and so engage in more direct contact with diverse individuals, though further research is needed to establish causal links between religiosity and attitudes toward diversity.

We compared scores from our high school sample to those of a college sample, and found that in general the college students had more accepting attitudes toward diversity than the high school students. These findings are not surprising, given the relative ages of the samples and the fact that colleges are generally more diverse environments relative to high schools, especially faith-based high schools. However, the college students in this study had either limited or no contact with individuals who have disabilities, and this difference was made apparent when comparing the college sample to the sample of high school students who engaged in frequent, direct contact with individuals who had disabilities. Our direct contact high school students showed significantly higher scores across measures of the UDO than the college sample. These results indicate that the sample of high school students who participated in Options Scholars/Peer Buddies had more accepting
attitudes toward diversity than the college students. This finding is consistent with contact theory in suggesting that direct contact with diverse individuals is associated with more positive attitudes toward diversity, regardless of age.

An additional factor that seems to be associated with positive attitudes toward diversity is gender. For both the high school and college samples in this study, females showed less prejudice and more accepting attitudes toward diversity in others than males. There are many different factors that could influence this difference (including cultural, biological, and social factors), but regardless of the source of this difference, our findings indicate that females tend to be more accepting of diversity than males.

In sum, the findings in the current study demonstrate that students who participate in activities that allow for direct contact with individuals who have disabilities tend to show less prejudice and more accepting attitudes toward diversity in others. These findings are consistent with previous research studies, which have found that direct contact with individuals who have intellectual disabilities promotes more positive attitudes, greater social acceptance, and more sensitivity toward others (Findler and Vardi 2009; Hardman and Clark 2006; Siperstein et al. 2009). The data also provide support for contact theory, which claims that direct, positive contact between different groups of people can reduce prejudice (Allport 1954; Roper 1990). A basic premise of contact theory is that attitude change is best fostered when diverse groups participate in collaborative experiences, and perceive equal status among individuals (Cook 1962; Devine and O’Brien 2007; Hughes et al. 2002). It is noteworthy that in the present study, the students with disabilities were fully included in the high school community as full members in academic, athletic, and social events. Thus, our findings lend further support to the notion that positive direct contact in which both groups are perceived to have equal status greatly reduces prejudice toward others and increases accepting attitudes toward diversity. Schools that are beginning to incorporate inclusion into their educational settings should pay attention to the types of contact they are promoting between students with and without disabilities so that the inclusive classrooms can provide the positive results they should for both groups of students.
Works Cited


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