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Impact of a student's diagnosis of autism spectrum disorder on general education teachers' attitudes

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Impact of a Student’s Diagnosis of Autism Spectrum Disorder on General Education Teachers’ Attitudes

Abstract of

a thesis presented to the Faculty of the University at Albany, State University of New York in partial fulfillment of the requirements for the degree of

Master of Arts

College of Arts & Sciences

Department of Psychology

Laura S. Hiruma
2011
Abstract

Fifty-six general education teachers participated in an online survey designed to determine the extent to which disclosure of a hypothetical student’s diagnosis of autism spectrum disorder described in a written vignette impacts: (1) the way in which general education teachers respond to student challenging behaviors, (2) teachers’ attitudes and expectations of the portrayed student; and (3) teachers’ feelings of self-efficacy. The relationships between teachers’ feelings of self-efficacy, their attitudes toward teaching the hypothetical student in the vignette, the ways in which they might respond to student behaviors, and the likelihood that they would choose to access a training resource offered as an incentive were also examined. Results indicated that teachers were significantly more likely to respond to student challenging behaviors with positive behavioral approaches when a diagnosis of autism was disclosed. However, disclosure of an autism label did not significantly impact teachers’ likelihood of responding to student behaviors with punitive approaches, teachers’ attitudes related to expectations for the student in their classroom, or teachers’ sense of self-efficacy. Implications of these findings, study limitations, and applications for future research are discussed.
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Introduction

As the number of children diagnosed with autism spectrum disorder (ASD) continues to rise, issues regarding the education of students with autism have become increasingly salient. The United States Centers for Disease Control and Prevention currently estimates that one in 110 children in the United States has an autism spectrum disorder (CDC, 2011), contributing to a growing population of students with ASD in public education settings. Data from 2008 indicates that approximately 336,000 students had been diagnosed with ASD nationwide, and that 36.1% of these students spent more than 80% of their time in general education classrooms at public schools (U.S. Department of Education, 2011). The percent of students with ASD included in general education settings has steadily increased from 31.7% reported in 2006. The growing trend in the number of students with ASD in general education settings has been partly attributed to more widespread identification and diagnosis of students with ASD (Frederickson, Jones, & Lang, 2010). Additionally, legislation such as the Individuals with Disabilities Education Improvement Act (IDEIA; Public Law (P.L.) 108-446, 2004), states that students with disabilities have the right to education in the least restrictive environment—typically general education classrooms—with varying levels of supports. In 2001, the National Research Council also recommended that students with ASD be included in general education settings in order to learn in a more naturalistic setting and benefit from social interaction with typical peers (Harrower & Dunlap, 2001). Due to the large shift toward inclusive educational practices for students with ASD, general education teachers are becoming increasingly responsible for educating students with autism. This may present a challenge for general education teachers who might lack
knowledge or resources to address difficulties that students with disabilities may exhibit in their classrooms. According to *The Diagnostic and Statistical Manual of Mental Disorders—Revised Fourth Edition* (American Psychiatric Association [DSM-IV-TR], 2000), diagnostic features of autism spectrum disorder include verbal and nonverbal communication deficits, social impairment, and repetitive movements and/or restricted interests. The social and communication impairments that are hallmark features of ASD not only impact psychosocial functioning and quality of life for individuals with ASD, but they also put children with ASD at high risk for developing behavioral difficulties, which can be aggravated in educational settings (Simpson, de Boer-Ott, & Smith-Myles, 2003). Challenging behaviors exhibited by students with ASD can impede learning, lead to punitive consequences, and rupture student-teacher relationships. Common challenging behaviors among children with ASD in educational settings include tantrums, inattention, aggression, withdrawal, disruption, and non-compliance (Horner, Carr, Strain, Todd, & Reed, 2002). Although the inclusion of students with autism into general education settings has become increasingly common, it is still unclear whether specific stigma exists for autism spectrum disorders in educational settings or how teachers might respond to students who exhibit symptoms or challenging behaviors associated with autism. In our current state of educational practice, the need to study general education teachers’ attitudes toward included students with autism and how teachers are likely to interact with these students is greater than ever.

*Teachers’ attitudes toward students with general disabilities.* Past research related to teachers’ attitudes and expectations of students with disabilities has largely focused on assessing stigma associated with general disability labels through the use of
video and written vignettes (Clark, 1997; Cook, Tankersley, Cook, & Landrum, 2000; Foster, Schmidt, & Sabatino, 1976; Thelen, Burns, & Christiansen, 2003). In one such study conducted by Foster et al. (1976), 44 elementary school teachers viewed a video of a typical fourth-grade boy and were randomly assigned to one of two conditions so that half the participants were told the student in the video had a learning disability and half were told the student in the same video was typically developing. In order to study the effect of a learning disability label on teachers’ attitudes, investigators examined teachers’ ratings of the student’s future academic progress and teachers’ behavioral observations of the student in the video for each condition. Results demonstrated that teachers held significantly more negative expectancies and reported seeing significantly more problem behaviors from the child in the video when he was labeled as learning disabled versus typical. This suggests that a disability label alone may be sufficient to produce harmful biases.

In a vignette study, Clark (1997) examined 97 elementary general education teachers’ attitudes to determine how a general learning disability label might impact teachers’ perception of a hypothetical student’s academic failure. In addition, the extent to which teachers would be likely to use reward versus punishment on the student portrayed in each vignette condition was also examined. Results indicated that teachers were more likely to use reward-based approaches with a student identified as learning disabled compared to a typical peer in instances of academic failure. Teachers in the study also reported feeling more pity and less anger toward a student with identified learning difficulties compared to a typical student after instances of failure, yet held lower expectations regarding the future academic success of the student when labeled as
learning disabled. Collectively, these results suggest that disclosure of a disability label can have mixed effects on teachers’ perceptions of a student. Based on the findings from this study, it appears that disclosure of students’ disabilities can help teachers make more accurate attributions about the cause of student behavior and may prevent inaccurate and negative judgments about students’ classroom difficulties. However, student success and the quality of student inclusion may still be impeded if teachers hold low expectations for their included students as the results of this study suggest.

Cook et al. (2000) used a more naturalistic approach to study teachers’ attitudes toward included students through the use of a nomination procedure. Seventy general education teachers of inclusive classrooms were asked to select students from their own classes who best fit the following nomination criteria meant to measure teacher attachment, concern, indifference, and rejection toward included students, respectively: “If you could keep one student another year for the sheer joy of it, whom would you pick?”; “If you could devote all your attention to a child who concerns you a great deal, whom would you pick?; “If a parent were to drop by for a conference, whose child would you be least prepared to talk about?”; and “If your class was to be reduced by one child, whom would you be relieved to have removed?” Chi-square analyses demonstrated that of the 13.6% students with disabilities present in participants’ classrooms, a large proportion were significantly overrepresented in the concern (30.8%) and rejection (30.9%) nomination categories, yet significantly underrepresented in the attachment (5.8%) nomination category. These results are important in demonstrating that general education teachers are more likely to exhibit concern and have more negative attitudes
toward teaching included students with disabilities compared to their typical classmates in actual classroom settings.

*Teachers’ attitudes toward specific disability labels.* Although review of the research in this field indicates that teachers’ attitudes toward students with general disability labels differs from attitudes toward typical students, Avramidis and Norwich’s (2002) review of inclusion literature suggests that teachers’ attitudes toward the integration of students with disabilities into general education settings varies depending on the nature of the disability label being presented. Other research examining teachers’ attitudes toward students with specific diagnoses has been crucial in showing that teachers’ attitudes toward integrating students with disabilities is largely influenced by the nature of the disability and its unique presenting challenges (Levin, Arluke, & Smith, 1982; Thelen et al., 2003). That is, empirical evidence suggests that not all disability labels carry the same level of stigma in academic settings. Thelen et al. (2003) conducted a study assessing the attitudes of 409 high school students, college students, and teachers toward a hypothetical child presented in a vignette. Experimenters examined four different conditions in which the hypothetical child was labeled as either having learning disability, mild mental retardation, emotional disturbance, or no disability. Results indicated that participants held significantly less favorable expectations of the portrayed student in terms of behavioral and academic performance when any of the three disability labels were present compared to the unlabeled control group. Additionally, participants held significantly lower behavioral expectations (i.e., they anticipated more future behavioral difficulties) when the child in the vignette was labeled as emotionally disturbed compared to the other disability label conditions. The difference found in
attitudes toward this particular disability label supports the need for further investigation into effects of specific disability labels on teachers’ perceptions, for which teachers may carry unique expectations.

Levin and colleagues (1982) similarly investigated the attitudes of 75 high school teachers toward a student described in a psychologist’s report. Teachers were randomly assigned to read one of four identical reports in which the student described was labeled as having either dyslexia, emotional disturbance, mental retardation, or no disability and were then asked to evaluate the student in terms of behavioral expectations and academic potential. Teachers’ behavioral intentions were also measured in terms of their reported willingness to prepare special lessons or stay after school to assist the student described in the report. Results confirmed that teachers’ attitudes toward the student described in the report differed depending on the disability label that was presented to them. Teachers who were told that the student was emotionally disturbed reported significantly less optimism concerning the student’s future success and judged the student as being less productive compared to the dyslexia, mental retardation, and no disability label conditions. The behavioral intentions of the teachers did not differ significantly depending on label, however, suggesting that attitudes do not necessarily influence variation in teaching practices. These results provide further evidence that the nature of educators’ attitudes toward students with disabilities is dependent on specific disability type. Findings also suggest that teachers believe that the emotional and behavioral difficulties associated with emotional disturbance are most likely to limit students’ success compared to other disabilities. This is important to note since diagnostic labels
associated with poor emotion regulation and behavioral problems, which may include an autism diagnosis, tend to elicit more negative attitudes from educators.

**Attitudes toward challenging behaviors of students with disabilities.** In addition to studying teachers’ perception of specific disability labels, it is also important to study the extent to which potential challenging behaviors of students with disabilities may impact teachers’ attitudes and instructional practice. Some studies have found that the impact of observed behavioral symptoms outweighs the impact of impressions surrounding diagnostic labels in terms of stigma and teachers’ expectations of students. Cornett-Ruiz and Hendricks (1993) conducted a study in which 39 general education teachers viewed one of four video conditions showing a child who displayed either behavior associated with attention deficit hyperactivity disorder (ADHD) or typical behavior and was labeled as either having ADHD or no disorder. Next, teachers completed ratings scales to measure their impressions of the student and made predictions regarding the student’s future success. In this case, the presence of behaviors indicative of ADHD, but not the ADHD label, significantly and negatively impacted teachers’ impressions and predictions of future success for the student presented in the video. Similarly, Butler & Gillis (2010) conducted research to examine 195 collegiate peers’ attitudes toward a hypothetical student labeled as having either Asperger’s Disorder (AD) or no label along with varying degrees of AD symptomatology presented in a vignette. Results from this study also demonstrated that participants’ attitudes were influenced more by behaviors presented in the vignette than by disclosure of a diagnostic label of AD. Although findings from these two studies indicate that a diagnostic label alone may not significantly impact individuals’ expectations and attitudes toward a student, the
previously noted studies found that disability labels do significantly impact teachers’ attitudes and suggest that the effect of disability labels should not be completely discounted. Rather, these collective findings highlight the larger impact of actual problem behaviors associated with a diagnosis on teachers’ attitudes toward students. It is important to study teachers’ reactions and attitudes toward students identified as having a disability in the presence of problem behaviors since, in reality, diagnostic labels are rarely assigned to students in the absence of behavioral symptoms. Ultimately, this research further emphasizes the importance of considering the behavioral challenges that are characteristic of students with ASD and how educators are likely to respond to them.

Behavioral difficulties associated with ASD can present many challenges for students with high-functioning forms of autism who are also frequently targeted for inclusion and mainstream settings. Although these students may have verbal and intellectual abilities in the normative range, it is likely that social impairments, ritualistic behaviors, obsessions, and other secondary features of autism, such as sensory sensitivities, may still contribute to challenging behaviors (Nicpon, Doobay, & Assouline, 2010). For example, difficulty understanding pragmatic language or inadequate verbal comprehension can result in obsessive question asking, lack of cooperation, and frustration among individuals with ASD. Moreover, impairments in social understanding may lead to withdrawal, isolation, or antagonistic behaviors. Obsessions and rituals, such as repetitive motor movements and extremely rigid routines, can also be disruptive and lead to inattention. Lastly, routine disruptions and aversive sensory experiences may lead to distress, tantrums, and aggression among children with autism (Howlin, 1998). Children with high-functioning autism also tend to exhibit higher
rates of comorbid disorders, such as anxiety, than do their typical peers (Loveland & Tunali-Kotoski, 2005). This additional psychosocial stress may manifest itself as tantrums, physical aggression, agitation, and/or noncompliance. Furthermore, high student expectations, an abundance of social interactions, and highly arousing sensory stimuli that are typical of inclusive educational settings may exacerbate students’ difficulties, making challenging behaviors among students with ASD more probable. Due to the likelihood of behavioral difficulties, general education teachers must be equipped to manage potential problem behaviors of students with autism. Since challenging behaviors can be a source of much teacher frustration and threaten teacher-student relationships, additional research is still needed to examine the ways in which general education teachers view and respond to behavior problems commonly associated with autism. Teachers’ frustration toward students with problem behaviors undoubtedly impacts their attitudes toward students and teachers’ feelings of self-efficacy. This in turn affects teacher-student relationships, which have been shown to be extremely important to the well-being of included students in terms of the quality of their academic and social inclusion (Robertson, Chamberlain, & Kasari, 2003). This provides even more reason to focus on teachers’ attitudes towards students with ASD in the presence of autism’s characteristic challenging behaviors.

Teacher self-efficacy. The role of teacher self-efficacy, often defined as the belief in one’s own ability to facilitate student learning and take initiative in students’ learning, has also been highlighted in research regarding teachers’ attitudes and responses toward included students with special needs (Brady & Woolfson, 2008; Jennett, Harris, & Mesibov, 2003). Teachers’ confidence in their ability to teach children with behavioral
difficulties is important in order for teachers to successfully respond to the needs of students with ASD. Factors that influence teachers’ feelings of efficacy when instructing students with disabilities include knowledge of the disability, access to support resources, availability of training, and previous experience working with children with special needs (Salend & Garrick-Duhaney, 1999). Research examining teachers’ attitudes toward teaching students with developmental disabilities has indicated that teachers who exhibit higher levels of self-efficacy also tend to have more positive attitudes about teaching students with challenging behaviors (Jennett et al., 2003). Brady and Woolfson (2008) conducted a study to examine the relationship between 118 general education and special education primary school teachers’ ratings of self-efficacy and the attributions they made for a hypothetical student’s learning difficulties, which were described in a vignette. Findings confirmed that previous exposure to students with special needs and high ratings of teaching efficacy positively predicted the likelihood that teachers made external attributions about the cause of student behaviors (i.e., that behaviors are a function of environmental, changeable influences rather than unchangeable individual attributes). Factors that influence the attributions teachers make about student behavior are important since these assumptions often guide how teachers respond to students’ academic and behavioral challenges with either positive support or punitive measures. Furthermore, if teachers possess stronger feelings of self-efficacy and attribute students’ challenging behaviors to student deficits as a result of disability, then it is likely that they will exhibit a positive bias in terms of addressing the difficulties of students with disabilities.

Support for general educators in inclusive settings. In order to fully understand general educators’ attitudes toward included students with disabilities in their classrooms,
it is critical to assess the degree to which general educators feel they have access to adequate resources for teaching in inclusive settings. One study surveyed 289 general and special education teachers to assess teachers’ feelings of self-efficacy as an instructor to included students, teachers’ understanding of inclusion, reported need for inservice training, and the availability of supports to promote inclusive practice (Buell, Hallam, Gamel-McCormick, & Scheer, 1999). Survey results indicated that general education teachers rated their efficacy, ability, understanding, and access to resources as being substantially poorer than special education teachers. More specifically, general education teachers reported a lack of confidence in their ability to adapt curriculum, manage challenging behaviors, and provide individual assistance. Of the 202 general educators that participated in this study, 78% indicated that they lacked inservice training opportunities. Ultimately, these ratings reflect the sentiment of general education teachers that they lack the resources and training necessary to meet the educational needs of included students with disabilities. In fact, much of general education teachers’ hesitation toward teaching in inclusive environments has been attributed to reported lack of resources, training, and limited understanding of the needs of students with disabilities (Buell et al., 1999; Helps, Newsom-Davis, & Callias, 1999; Salend & Garrick-Duhaney, 1999). Inservice trainings are valuable for all educators in inclusive settings since training is necessary to inform teachers of the characteristics and specific needs of students with ASD, effective instructional strategies to use with students on the spectrum, and empirically-based interventions to address problem behaviors (Simpson et al., 2003). *Use of vignettes in attitudinal research.* As mentioned in the review of literature, research examining the attitudes of teachers toward students with disabilities has
predominantly used vignette-based designs (Brady & Woolfson, 2008; Butler & Gillis, 2010, Clark, 1997; Thelen et al., 2003). Written vignettes are advantageous in attitudinal research since they are easy to administer in survey formats, provide sufficient descriptions for hypothetical situations that would be otherwise difficult to produce in a naturalistic manner, and allow investigators to control the uniformity of information presented with the manipulated variable of interest—in this case, disclosure of a disability label. In a review of the methodology of survey research in the field of teachers’ attitudes toward inclusion, Avramidis & Norwich (2002) point out that use of a disability category or label alone may not be sufficient to assess teachers’ attitudes since respondents may have varying interpretations of a disability label. As such, they suggest using specific descriptions in the form of vignettes in order to convey behaviors and characteristics that are associated with a disability to more accurately assess teachers’ attitudes toward a uniform representation of the label.

*Present study goals.* Although previous research has focused on teachers’ attitudes, feelings of self-efficacy, and the way in which teachers respond to challenging behaviors of students with various disability labels, there is still a need for additional research to examine general education teachers’ attitudes, expectations, feelings of self-efficacy, and interactions with students with developmental disabilities—specifically autism. Furthermore, the increasing number of students with ASD being placed in inclusive classrooms and general education settings further highlights the particular importance of this research at the present time. The present study seeks to investigate the impact of disclosure of a student’s diagnosis of ASD on teachers’ attitudes toward a student with this disability and the ways in which teachers might interact with the
student. Specifically, the purpose of the present study is to examine the extent to which disclosure of a hypothetical student’s diagnosis of autism spectrum disorder presented in a written vignette impacts: (1) the way in which general education teachers respond to hypothetical student behaviors, (2) teachers’ expectations and attitudes toward the portrayed student; and (3) teachers’ ratings of self-efficacy. This study also aims to explore the relationships between teachers’ feelings of self-efficacy and their attitudes toward teaching the hypothetical student in the vignette, as well as between teachers’ feelings of self-efficacy and the likelihood that they would respond to student behaviors with positive behavioral approaches versus punishment practices. Additionally, this study seeks to examine factors that might impact the likelihood that general education teachers choose to access a provided online training for educators of students with autism, which was offered as an incentive for participation in the study. Based on review of relevant research in the field, the following hypotheses were formulated:

**Hypothesis 1:** General education teachers who read the vignette condition in which it was disclosed that the student has a diagnosis of autism spectrum disorder will respond to hypothetical challenging behaviors with more positive behavioral approaches and less punishment-based approaches than will general education teachers who were not informed of the autism diagnosis.

**Hypothesis 2:** General education teachers who read the vignette condition in which it was disclosed that the student has a diagnosis of autism spectrum disorder will express more negative academic and social expectations for the hypothetical student than will general education teachers who were not informed of the autism diagnosis.
Hypothesis 3: General education teachers who read the vignette condition in which it was disclosed that the student has a diagnosis of autism spectrum disorder will report lower ratings of teacher self-efficacy than teachers who were not informed of the autism diagnosis.

Hypothesis 4: Higher ratings of teacher self-efficacy will be associated with more positive academic and social expectations for the hypothetical student among teachers in the condition in which the student is labeled as having an autism spectrum disorder. Higher scores of teacher self-efficacy will also be associated with a higher likelihood of using reinforcement-based approaches and lower likelihood of using punishment-based approaches to address the hypothetical student’s behavioral difficulties across conditions.

Hypothesis 5: Based on research indicating that general education teachers have reported a substantial need for special education training and resources to instruct included students, a large portion of participants are expected to access the online training that is being offered as an incentive. Teachers who indicate that they have students with disabilities included in their classrooms and report high levels of self-efficacy will be more likely to take the initiative to access the online training incentive than will teachers who report they do not currently have included students in their classroom and report lower levels of self-efficacy.
Method

Participants

Recruitment procedures. Participants were recruited online via an email, which described a research opportunity regarding teachers’ attitudes toward students in different classroom situations. General education teachers’ email contacts were gathered from publicly available elementary school websites, primarily focusing on schools in New York State. In addition, a description of the study and a copy of the study’s flyer were sent to principals who had publically available email contacts listed in online directories to seek their assistance in recruiting teachers for the study. Teachers who wished to participate in the study could do so by clicking a link to the online survey, which led to the initial consent agreement webpage. On this webpage, teachers were informed of the study details and were told that they could indicate their consent to participate by entering an individualized participant code, included in their recruitment email, into the designated space following a teacher consent statement (see Appendix A for copy of the recruitment flyer, email correspondence to teachers and principals, initial consent agreement webpage, and teacher consent statement).

Inclusion criteria for teachers required that participants be general education teachers of fourth or fifth grade classrooms. Because the attitudes of general education teachers who may have mainstreamed or included students with autism in their classrooms were of particular interest, teachers in special education settings were excluded from the study. Primary school teachers were targeted since inclusion of students with disabilities into general education classrooms typically begins during elementary education. Data collected from the United States Department of Education
from 1992-1993 also indicated that students with disabilities, aged 6-11 years, were most likely to be served in regular classrooms (nearly 50%) compared to all other school-aged children with disabilities (U.S. Department of Education, 1995). Lastly, to control for the age-appropriateness of challenging behaviors presented in the vignette, grade levels that participants were currently teaching were limited to fourth and fifth grade classrooms.

Participant descriptive information. Participants included 56 general education teachers of fourth and fifth grade classrooms in New York, Rhode Island, Minnesota, and Washington, D.C. The majority of participants were teachers in New York State (91%) as the majority of recruitment efforts took place in this location. Tests of homogeneity indicated that participant demographic characteristics were comparable between the two experimental conditions. That is, there were no significant differences in age, gender, educational background, years of teaching experience, grade level taught, experience in inclusive settings, access to special education resources, or prior special education training between the two groups. In the overall sample, 75% of respondents were female, 44.6% currently taught in a fourth grade classroom, and 55.4% currently taught in a fifth grade classroom. The age breakdown of participants was distributed as follows: 19.6% between the ages if 20-29 years; 33.9% between the ages of 30-39 years; 32.1% between the ages of 40-49 years; 12.5% between the ages of 50-59 years; and 1.8% were 60 years or older (see Table 1 for complete participant demographics).

Measures

All measures were presented to participants in an online survey format that was developed using Snap 10 Survey Software (Snap Surveys Ltd., 2011).
**Vignette.** A brief vignette was developed in collaboration with a focus group of educational consultants from the Center for Autism and Related Disabilities (CARD) at the University at Albany, State University of New York to realistically portray behaviors that might be indicative of a child with high-functioning autism, who general education teachers may encounter in an inclusive setting (see Appendix B). The student was given a gender-neutral name (i.e., “Taylor”) and no gender was indicated in the vignette in an effort to prevent any concomitant biases in regards to the hypothetical student’s gender. Student behaviors and deficits depicted in the vignette were reflective of core features of autism as outlined in DSM-IV-TR (2000) criteria for ASD and were consistent with behaviors commonly seen among students with autism, based on focus group discussion with educational consultants at CARD and review of current literature in the field.

**Response to Student Behaviors Scale.** This investigator-derived measure, which included 14 short scenarios describing classroom difficulties experienced by the hypothetical student, asked teachers to rate how likely they would be to respond to the student using specified positive supports or punishment approaches using a 4-point Likert scale ranging from 1, “very unlikely,” to 4, “very likely” (see Appendix B). Scenarios presented in the *Response to Student Behavior Scale* were also developed in collaboration with educational consultants at CARD. Recommendations from the Autism Spectrum Disorder Inclusion Collaboration Model (Simpson et al., 2003) were also reviewed for designing the positive support-based response options on the scale. Examples of items on the *Response to Student Behaviors Scale* which used positive support response options included the following:
“When students were assigned to work in pairs, Taylor was not engaged in discussion with a partner. How likely is it that you would give individual instruction to Taylor before the next partner activity on how to work with a partner?”

“When making an announcement to the class that it was time to line up to go to weekly music class, Taylor did not get up to line up with classmates right away. How likely is it that you would give Taylor a visual schedule as a prompt to be ready for music class next time?”

Likewise, examples of items on the scale that used punishment-based response options included the following:

“During assigned group work, it appeared that Taylor was not participating with group mates. How likely is it that you would deduct points from Taylor’s participation grade?”

“When making an announcement that it was time to stop doing work on math and for students to take out their writing notebooks, Taylor did not stop work to get out the next lesson’s materials. How likely is it that you would remove a class privilege from Taylor for not following instructions?”

Items from this scale were selected to create summed composite scores for total use of positive behavior supports and total use of punishment-based approaches for each participant.

*Teachers’ Attitudes Scale.* Teachers’ attitudes toward teaching the student portrayed in the vignette were measured through a brief investigator-derived *Teachers’ Attitudes Scale* which assessed participants’ level of agreement with six statements
regarding the student’s probable academic and social success in their classroom and in
the future (e.g., “It is likely that Taylor will obtain skills to build relationships with peers
in the future,” “I would feel comfortable teaching a student like Taylor in my class”).

Teachers’ responses were recorded on a five-point Likert scale of agreement, with a score
of 1 indicating that teachers “strongly disagree” with a given statement and a score of 5
indicating that teachers “strongly agree” with a given statement. Items on this scale were
modeled from questions included in the First Impressions Rating Scale and the
Predictions Rating Scale used in a study by Cornett-Ruiz and Hendricks (1993) and the
Expectations Scale used by Fox and Stinnett (1996) (See appendix B).

Teachers’ Sense of Self-Efficacy Scale. The 12-item short form of the Teachers’
Sense of Self-Efficacy Scale (Tschannen-Moran & Woolfolk Hoy, 2001) was used to
assess participant’s feelings of self-efficacy as teachers (see Appendix B). Items
represented teacher efficacy related to student engagement, instructional strategies, and
classroom management. Participants responded to these items on a 9-point Likert scale,
with a score of 9 indicating that teachers felt they could do “a great deal” and a score of 1
indicating that teachers felt they could do “nothing.” The developers of this scale found
that it had an acceptable reliability of \(\alpha=0.9\) (Tschannen-Moran & Woolfolk Hoy). Similar
to the analysis performed in Brady & Woolfson’s (2003) study, responses to all 12 items
were summed to form a total score. Higher efficacy scores indicate a greater sense of
teacher efficacy. It is important to note that a factor analysis was performed with the
present sample, which identified only two factors. These two factors were not consistent
with any of the three factors found by the scale’s developers. Results from the factor
analysis might be due to the limited sample size of this study. Thus, results from this scale should be interpreted with caution for this sample.

_Demographic and Professional Experience Questionnaire._ Lastly, questions about demographic information and teachers’ professional experiences were administered to provide qualitative data for this sample (see Appendix B). In addition to questions regarding participants’ age, gender, years teaching, level of education, and current classroom grade level, questions related to participants’ professional experiences as educators were included to gather information regarding teachers’ past training experiences, access to resources, experience in inclusive settings, and whether they currently instruct students with special needs.

_Online training incentive._ Previous research shows that the number of instructional strategies that general educators use with included students tends to increase with the number of special education courses or trainings taken (deBettencourt, 1999). Moreover, review of research examining general education teachers’ views of barriers to inclusion indicates that a lack of special education training and resources is a primary concern among general educators in inclusive settings. Based on these findings, provision of an online training resource seemed a valuable incentive for general education teachers participating in the present study. As such, an online course currently offered through the Center for Autism and Related Disabilities at the University at Albany, SUNY was included as an incentive resource for participants in the study. The online training consists of three hours of content on strategies for teaching students with ASD and includes information regarding: the definition and characteristics of ASD; etiology and prevalence; evidence-based interventions; behavior management strategies;
positive behavior supports; and collaboration and resources. The course could be accessed an unlimited number of times for up to one-month following participants’ completion of the online survey.

Procedure

Teachers were randomly assigned to receive one of two web-based survey links in their study recruitment email using a stratified sampling method so that an approximately equal number of general education teachers at a given school would be provided with the link to the survey with the ASD label vignette condition versus the unlabeled vignette condition. Links to the survey in the ASD label condition contained the vignette in which the hypothetical student was identified as having an autism spectrum disorder, while the other link led to a survey that contained the same vignette, with the exception that no disability was specified. After clicking a link to the online survey, teachers were led to an online consent page which detailed the nature of the study. Instructions included in the survey informed teachers that the study was meant to examine teachers’ attitudes toward a hypothetical student in a classroom setting and that the survey would take approximately 20 minutes to complete. Teachers were also informed that following participation in the online survey, they would gain access to a free online training resource to compensate them for their participation in the study. In the consent agreement, the independent variables (i.e., disclosure of a diagnosis of ASD, teachers’ access to the training incentive) were not explicitly revealed in order to maintain the fidelity of the study’s findings. Given the nature of the online study, participants indicated their consent to participate in the study by entering their individualized subject code, which was provided in their recruitment email, into the space following the teacher
consent statement. Teachers who did not wish to give their consent to participate in the
study were instructed to exit their browser window. At the start of the survey,
participants were asked to read the vignette regarding a hypothetical student who displays
challenging behaviors. As previously mentioned, in one condition teachers were told that
the student portrayed in the vignette has an autism spectrum disorder. In the other
condition, information on diagnosis was not disclosed. Teachers were then asked to
answer questions on the investigator-derived Response to Student Behavior Scale to
assess how likely they would respond to specific challenging behaviors with positive
behavioral approaches (e.g., providing a visual schedule, modifying curricula) or
punishment-based approaches (e.g., administering a time-out, deducting class points).
Next, teachers responded to items on the investigator-derived Teachers’ Attitudes Scale,
which gaged participant’s attitudes toward having this student in their classroom, as well
as their future expectations for the student. In the section that followed, teachers’
feelings of self-efficacy were assessed using the Teachers’ Sense of Self-Efficacy Scale
(Tshcannen-Moran & Woolfolk Hoy, 2001). Finally, teachers provided information
about themselves in the last section of the survey, which included questions pertaining to
teachers’ demographics and professional experience. Upon completion of the survey, a
disclosure statement was provided in order to inform participants that the study was
conducted in the interest of learning about general education teachers’ attitudes toward
students with a diagnosis of autism. Information regarding the online training incentive
was also included (see Appendix C for Disclosure Statement and Online Autism Training
Resource). Individual log-in information to access the online training incentive was then
sent to participants upon their completion of the survey, which was tracked through Snap Survey’s webhost.

*Data collection and analysis.* Responses from the online surveys were automatically transferred to a secure data file on a password protected SNAP Survey web-server. A one-way between subjects ANOVA was conducted to examine the effect of vignette condition (ASD label versus no label) on teachers’ scores on the *Response to Student Behavior Scale* and the *Teachers’ Sense of Self-Efficacy Scale*. Next, a correlational analysis was used to examine the relationship between scores on the *Teachers’ Sense of Self-Efficacy Scale*, teachers’ attitudes toward teaching the student portrayed in the vignette within the ASD label group, and the likelihood of teachers across groups selecting reinforcement and punishment-based approaches in response to the student’s challenging behaviors. Last, data on whether participants chose to access the online autism resource was examined. Due to the extremely low rate of teachers who redeemed their access to the online resource, it was not possible to conduct analyses to compare the relationship between teacher attributes and their likelihood of using provided resources. Instead, descriptive analyses were conducted to determine whether there was a need for this resource based on the number of teachers in the overall sample who currently had a student with special needs, had access to resources at their school, or had attended a special education conference.
Results

Impact of diagnostic disclosure. Results from the one-way ANOVA indicated that there was a significant effect of diagnostic label condition on teachers’ scores for likelihood of responding to student behaviors with positive behavioral approaches \( (F_{(1, 54)} = 4.52, p = .038) \), meaning that teachers who had knowledge of the student’s diagnosis of ASD generally used more positive behavioral approaches to address challenging behaviors compared to teachers who did not receive disclosure of the student’s diagnosis of autism. There were, however, no significant effects of diagnostic label condition on teachers’ scores for likelihood of responding to student behaviors with punishment-based approaches \( (F_{(1, 54)} = 1.02, p = .317) \), indicating that disclosure of an ASD label did not produce differential responding between groups in terms of using punishment. Overall, punishment approaches were selected less frequently than positive approaches by teachers across conditions (see Figure 1, Table 2). Disclosure of the student’s diagnosis of autism also had no significant effect on teachers’ attitudes related to expectations for the student in their classroom \( (F_{(1, 54)} = .092, p = .763) \), or teachers’ sense of self-efficacy \( (F_{(1, 54)} = 3.31, p = .074) \), indicating that there was no difference in teachers’ attitudes toward the depicted student or their ratings of self-efficacy between the two vignette conditions.

Teacher efficacy. Correlational analysis revealed that there was no significant relationship between teachers’ ratings of self-efficacy and attitudes toward teaching the student in the ASD label group \( (r = -.280, n=23, p = .195) \). That is, for teachers who received disclosure of the student’s ASD diagnosis, there was no relationship between the level of self-efficacy they reported and their scores on the Teachers’ Attitudes Scale.
There were, however, significant positive correlations between teachers’ ratings of self-efficacy and use of positive behavior approaches \((r=.287, n=56, p=.032)\) and significant negative correlations between teachers’ ratings of self-efficacy and use of punishment-based approaches \((r= -.299, n=56, p=.025)\) across groups (see Table 3 for all correlations). The direction of these significant correlations indicates that high ratings of self-efficacy are associated with a higher likelihood of using positive behavior approaches to address the student’s challenging behaviors. Conversely, the inverse relationship between self-efficacy score and use of punishment-based approaches indicates that high ratings of self-efficacy are associated with a lesser likelihood of using punishment-based approaches.

**Teacher experience.** Qualitative information regarding teachers’ past experiences and professional settings indicated that the majority of participants had ten or more years of teaching experience (62.5%) and had Master’s level education (92.9%). In terms of school settings and experiences, 48.2% of participating teachers indicated that they had received some special education training, 85.7% had attended at least one conference regarding teaching students with special needs, 87.5% stated they had access to special education resources at their school, 44.6% currently taught in an inclusive setting, and 94.6% currently had a student with special needs in their classroom (see Table 4 for summary of participants’ teaching experience).

**Teachers’ use of training incentive.** Interestingly, out of the fifty-six participants who were offered access to the online autism training for educators, only one teacher chose to access its content despite high rates of teachers reporting that they currently teach in inclusive classrooms (44.6%) or currently have a student with special needs in
their classroom (94.6%). The low rate of participants’ use of this resource may be explained by the fact that many teachers reported already having access to special education resources and trainings. As reported, descriptive analyses of participants’ professional experience revealed that relatively high rates of participants had already received some special education training, attended a conference, training, or in-service regarding students with developmental disabilities, and currently had access to special education resources at their school.
Discussion

Findings from this study indicated that there was a significant difference between vignette conditions, which revealed that teachers who were told the student the student has a diagnosis of ASD indicated that they were more likely to use positive supports in response to the hypothetical student’s challenging behaviors in the ASD label versus teachers who were not informed of the student’s diagnosis. These results support the hypothesis that a positive bias is likely to occur when teachers are aware that a student with challenging behaviors has a diagnosis of ASD. Findings from this study are consistent with other research in the field, which also demonstrates that disclosure of a disability label results in use of more reward-based approaches versus punishment-based approaches to address students’ classroom difficulties (Clark, 1997). Clark ascribed her research findings regarding teachers’ perceptions of student academic outcomes to attribution theory (Graham, 1991; Weiner, 1979), which postulates that teachers who attribute a student’s challenging behaviors as stemming from a specific diagnosis are likely to use more positive strategies rather than punitive strategies to address behaviors based on the belief that behaviors are external to the child’s own volition and control. Overall, results related to teachers’ reported use of positive behavioral approaches in response to student challenging behaviors is promising. Even in the condition where no behavioral attribution could be made to a specific diagnostic label, teachers were more likely to respond to the student using positive approaches. This is an optimistic finding since review of challenging behavior intervention research has confirmed that positive behavioral strategies (e.g., encouragement, prompting, use of environmental modifications and additional supports) can be effective in producing an approximated
80% reduction in problem behaviors (Horner et al., 2002). A large amount of research has focused on the effectiveness of interventions for managing students’ challenging behaviors. Since behavioral patterns in classroom settings are reciprocal (i.e., students’ behaviors affect teachers’ responses, and teachers’ responses influence subsequent student behavior), the ways in which teachers choose to respond to student behaviors is an important topic. Positive behavior supports (PBS) and stimulus-based procedures were of particular interest in the design of positive response options on the Response to Student Behaviors Scale used in this study since research has indicated that these strategies are especially effective for managing challenging behaviors among children with developmental disabilities. These procedures are characterized by student-centered planning to: identify the underlying function of problem behaviors; provide individualized supports; modify the environment and curriculum to prevent problem behaviors (e.g., modifying schedules, altering physical characteristics of the setting); and reinforce positive behaviors (Horner et al., 2002; Iovannone, Dunlap, Huber, & Kincaid, 2003; Safran & Oswald, 2003). While there is no one behavioral intervention for challenging behavior recommended specifically for individuals with autism, PBS and similar procedures have shown promising results in effectively minimizing the behavior problems among students with autism by preventing contexts that evoke problem behaviors and encouraging more positive behaviors (Kennedy et al., 2001; Safran & Oswald, 2003). In the future, this area of research may promote widespread training for teaching staff to further increase teachers’ use of positive rather than punitive approaches. Since teachers also act as a model to other pupils and influence the quality of inclusion of
students with disabilities in their classrooms, it is important that the nature of teachers’ interactions with included students remains positive.

Because this study demonstrated that primary education teachers respond differentially to a student’s challenging behaviors depending on the disclosure of an ASD diagnosis, future research should focus on the attitudes and responses of secondary general education teachers. This is an important next step, since the challenging behaviors of students with autism and other disabilities may be less tolerated as students become older. Additionally, reports from the U.S. Department of Education indicate that secondary education becomes even more challenging for students with autism, as the majority of secondary general education teachers make either no modifications (33%) or minimal modifications (47%) for students with autism in general education classes (U.S. Department of Education, 2007).

No significant differences were found in the present study in terms of teachers’ attitudes and expectations for the student labeled as having ASD versus having no label. These findings counter previous research demonstrating that teachers hold significantly more negative attitudes expectations of students who are labeled as having a disability compared to their typical peers or when a disability label is withheld (Cook et al., 2000; Foster et al., 1976; Thelen et al., 2003). The inconsistency in findings may be supported by other past research that indicates specific disability labels produce unique attitudes and expectations among teachers (Levin et al., 1982; Thelen et al., 2003). It is possible that teachers are now better informed about the abilities of students on the autism spectrum and have more positive expectations in terms of these students’ academic performance in their classrooms. Based on the abundant training experience reported by general
education teachers in this particular sample, it is also possible that teachers’ expectations would be buffered by their confidence in being able to manage students’ challenging behaviors, regardless of the presence of a disability label. Additionally, it is possible that the description of the student provided in the vignette was transparent enough in terms of autism symptoms for teachers in the unlabeled condition to suspect that the student portrayed was on the autism spectrum. This would account for the insignificant difference in attitudes reported between the two experimental groups.

Additional findings from the present study also indicated that, while ratings of teacher efficacy did not correlate with teachers’ attitudes toward the portrayed student, high ratings of teacher self-efficacy did positively correlate with use of reinforcement-based strategies to manage challenging behaviors. High ratings of self-efficacy were also found to negatively correlate with use of punishment-based strategies. These findings might suggest that teachers with strong feelings of self-efficacy feel more confident in their ability to manage or instruct students with challenging behaviors in constructive ways. Previous research (Brady & Woolfson, 2008), which found that high ratings of teacher self-efficacy are related to the increased likelihood in making external attributions about the cause of student behavior, might also explain these findings. If higher ratings of self-efficacy are related to external attributions of student behavior, it is likely that teachers with a strong sense of self-efficacy feel less inclined to punish students for behaviors that teachers view as beyond the student’s control and as easily changeable.

Findings related to participant’s use of the provided training incentive were quite interesting. Although it was surprising that only one individual in the entire study chose to access the provided online training incentive, descriptive results indicating that the
majority of teachers had already received or had access to special education inservice trainings or conferences are promising. This is especially true when considering the results of past studies, which indicated that a dominant concern of teachers regarding inclusive education was a considerable lack of training opportunities available to general education teachers (Buel et al., 1999; Salend & Garrick-Duhaney, 1999; Scruggs & Mastropieri, 1996). Since the online training incentive may have seemed redundant to resources that teachers have already accessed and/or may not have addressed other disabilities that teachers’ encounter among their current included students, it is possible that participants felt this material was not relevant or useful to them. However, it is also possible that teachers chose not to access the training incentive for other reasons.

Research examining general education teachers’ attitudes toward the inclusion of students with autism conducted by Emam and Farrell (2009) suggests that in some cases teachers may simply not be willing to exert extra efforts to address the unique needs of their students with autism, especially if teachers experience burnout or feelings of low self-efficacy. Future descriptive research related to general education teachers’ inclusive practices might assess factors that influence the likelihood that teachers will take initiative to seek out additional special education resources, evaluate the nature and quality of actual training programs that are currently provided to general education teachers, and examine the extent to which teachers’ training translates into actual implementation of strategies in classrooms.

While the present study yielded some significant findings, limitations were present in the study’s design. One obvious limitation was the limited sample size in the study, which may have led to skewed factor loadings on the Teachers’ Sense of Self-
Efficacy (Tschannen-Moran & Woolfolk Hoy, 2001) and insignificant mean differences in teachers’ attitudes toward the hypothetical student between vignette conditions due to small effect sizes. Recruitment of teachers for the online survey was quite difficult, suggesting that the online training resource may not have been a strong enough incentive for participation. At the time of data analysis, 1,356 fourth and fifth grade general education teachers were contacted for recruitment into the present study and only 56 participated in the online survey (4.1% response rate). Another limitation of the study was use of a non-validated investigator-derived Teachers’ Attitudes Scale. Use of a validated scale to assess teachers’ attitudes toward teaching a student with ASD would be ideal; however, there are no validated scales that currently measure attitudes towards students with developmental disabilities in general education settings. Another concern common to research using vignettes is that the hypothetical measures of teachers’ responses to student challenging behavior may not generalize to actual teachers’ response to student behaviors in a real classroom setting. Since hypothetical instances of students’ challenging behaviors might evoke dispassionate responses from teachers compared to when teachers are facing actual challenging behaviors in the classroom, future research might attempt to examine general education teachers’ perceptions and interactions with included students with autism using student nominations or observational methods.

Ultimately, studying the stigma associated with specific disability labels remains important in order to protect the quality of life and quality of education for individuals with developmental or other disabilities. Stigma that takes form in negative attitudes or expectations of individuals with disabilities has considerable consequences, such as poor self-esteem and social withdrawal (Shatyermman, 2000)—both of which
would be detrimental to the progress of students with autism. It is especially important to be aware of teachers’ attitudes towards students labeled with ASD due to the large population of students on the spectrum in the general education system, especially in light of recent concern surrounding a label of ASD spurred by changes in diagnostic criteria proposed by the American Psychiatric Association’s Neurodevelopmental Disorders Work Group for the upcoming fifth edition of the Diagnostic and Statistical Manual of Mental Disorders. Many high-functioning individuals currently diagnosed with Asperger’s disorder (AD) have expressed concern about the dissolution of a separate AD diagnosis in favor of a single ASD diagnostic category (Swedo, 2009). Concerned individuals feel as though they might lose the sense of community that has emerged from the Asperger’s label and fear that an ASD label may carry more stigma and make these individuals appear more disabled than their actual functioning reflects. This is a prime example of the significant impact that a diagnostic label can have on individuals. Disability labels undoubtedly influence individuals’ sense of identity as well as the opinions and attitudes of others. As such, further research to understand the unique nature of an autism spectrum disorder diagnosis and how it impacts the quality of life, educational experiences, and opportunities available to individuals with autism remains an important area of research.
References


Cook, B.G., Tankersley, M., Cook, L., & Landrum, T.J. (2000). Teachers' attitudes toward their included students with disabilities. *Council for Exceptional
Children, 67, 115-135.


Appendix A

Recruitment Flyer
Teacher Recruitment Email
Principal Recruitment Email
Initial Consent Agreement Webpage
Teacher Consent Statement
Research Opportunity for 4th and 5th Grade General Education Teachers!

Approved by IRB 11-018

The University at Albany

Take a short online survey regarding teachers’ attitudes towards students in the classroom environment and qualify for a free online training for educators (valued at $75.00).

If you are interested in participating in this online research study being conducted through the University at Albany, SUNY, please contact Laura Hiruma at Laura.hiruma01@albany.edu for more information.
Dear 4th or 5th Grade General Education Teacher,

My name is Laura Hiruma and I am currently a doctoral student conducting research through the University at Albany, SUNY. I am writing to inform you about a research opportunity available to 4th and 5th grade general education teachers to participate in a short and anonymous online survey regarding general education teachers’ attitudes towards students in different classroom situations.

Should you wish to participate, you will be asked to read a short vignette about a hypothetical student and answer some questions related to classroom scenarios and teacher attitudes. The survey should take approximately 20 minutes to complete. All responses are completely anonymous and will not be linked back to you. To compensate you for your participation in this study, you will be offered a free online training for educators (valued at $75.00). If you have any questions regarding this study, please feel free to contact me at: Laura.hiruma01@albany.edu or (518) 442-2574.

To learn more about this study and begin the online survey, please click on the link listed below: (Randomized link provided)

The participant code you need to begin the survey is: ####

Thank you—your time is greatly appreciated!

Sincerely,

Laura S. Hiruma

Graduate Assistant, Department of Psychology
University at Albany, SUNY
Social Sciences 399
1400 Washington Avenue, Albany, NY 12203
Phone: 518-442-2574
E-mail: Laura.hiruma01@albany.edu
Dear Principal __________________,

My name is Laura Hiruma and I am currently a doctoral student conducting research through the University at Albany, SUNY. I am writing to inform you about a research opportunity available to 4th and 5th grade general education teachers from your school to participate in a short and anonymous online survey regarding general education teachers' attitudes towards students in different classroom situations. The survey should take approximately 20 minutes to complete.

In exchange for their participation, teachers who participate in the study will be offered a free online training for educators (valued at $75.00).

If you have any questions about the study please feel free to contact me at: Laura.hiruma01@albany.edu. Fourth and fifth grade teachers at your school will be sent a study description along with a link for the online survey which they can complete at their convenience, should they wish to participate. I have also attached a copy of the study's flyer in case you are interested in posting this opportunity at your school.

Sincerely,

Laura S. Hiruma

Doctoral Student
College of Arts & Sciences—Department of Psychology
University at Albany, SUNY
Social Sciences 399
1400 Washington Avenue, Albany, NY 12203
Phone: 518-442-2574
E-mail: Laura.hiruma01@albany.edu
An Educational Study of Teacher’s Attitudes
Consent Agreement
Principal Investigator: Laura S. Hiruma

The purpose of this study is to learn more about 4th and 5th grade general education teachers’ attitudes towards students in the classroom environment. This research study is being conducted at the University at Albany, SUNY. Teachers who participate in this study will be asked to read a short vignette about a hypothetical student and answer some questions related to certain classroom scenarios. Participants will then be asked to complete a brief attitudes questionnaire and to answer a few questions about their teaching background. The online survey will take approximately 20 minutes to complete. If you choose to participate, you will be asked to enter a participant code that has been assigned to you (included in your initial email about the study). This number allows researchers to track that you have completed the survey but does not connect your responses with your name or the name of your school. Both the survey and responses are sent over a secure, encrypted connection as is guaranteed by the SNAP Survey Software Company.

Your participation in this study is voluntary and you may discontinue your participation at any time. After completing the survey, participating teachers will be offered the option to complete a free online training for educators (valued at $75.00), available for use up to one month after completing the study as compensation for participating.

All information obtained in this study is strictly confidential unless disclosure is required by law. In addition, the Institutional Review Board, the sponsor of the study (e.g. NIH, FDA, etc.) and University or government officials responsible for monitoring this study may inspect the data collected. In accordance with the University at Albany policy, authorized research personnel, employees of the Department of Health and Human Services, the University at Albany Institutional Review Board and its staff, and other individuals acting on behalf of the University at Albany may inspect the records of this research project. All records and data will be kept on a secure computer server or in locked filing cabinets for the duration of the project and in storage for a minimum of three years following the end of the study. Any identifying information will be kept separately from raw data and both will remain in locked file cabinets. All data will be destroyed after 7 years.

This project has been approved by the University at Albany Institutional Review Board. Approval of this project only signifies that the procedures adequately protect the rights and welfare of the participants. Please note that absolute confidentiality cannot be guaranteed due to the limited protections of internet access. Please be sure to close your browser when finished so no one will be able to see what you have been doing.

There are no anticipated risks or immediate benefits to participating in this study. However, we hope that information gathered from this study will further researchers’ understanding of teachers’ attitudes. If you have any questions regarding this study please contact the principal investigator, Laura Hiruma, at (518) 442-2574 or Laura.hiruma@albany.edu. If you have any questions concerning your rights as a research participant that have not been answered by the investigator or if you wish to report any concerns about the study, you may contact the University at Albany’s Office of Regulatory Research Compliance at (518) 442-9050 or orrc@uarmail.albany.edu. If you are outside the (518) calling area, you may use the toll free number: 1-800-365-9139.
Please read the following statement:

I understand that my participation in this study is voluntary and that I may change my mind at any time and withdraw my consent. My agreement or lack of agreement to participate will in no way affect my ability to seek services at the University at Albany. I understand that only the research site conducting this study and related site staff will have access to any records kept during the study and that my name will not be used in record keeping or dissemination. I understand that I can contact the principal investigator with any questions.

I understand that my participation will involve reading a brief vignette and answering questions regarding classroom situations and my attitudes. I understand that I may choose not to answer any or all of the questions and may refuse to complete any portions of the research for any reason.

If you have read the informed consent statement and wish to participate in this study, please enter the participant code (found in the initial email sent to you about the study) in the box below and press continue to go on to the online survey. If you do not wish to participate in this study, simply exit this browser window.

Participant Code:  

Continue
Appendix B

Vignette

Response to Student Behavior Scale

Teachers’ Attitudes Scale

Teachers’ Sense of Self Efficacy Scale (Short Form)

Demographic and Professional Experience Questionnaire
Please read the following passage about a hypothetical student in a classroom, in which you are the teacher:

Taylor is a student in your classroom ["who has an autism spectrum disorder" added to this sentence for respondents randomized to the autism disclosure condition]. Taylor arrives a few minutes early to school each morning and usually likes to look over the same book before the school bell rings for class to begin. Once, when this book was missing from the classroom library, Taylor became upset to the point of tears and needed several minutes to calm down. Taylor is usually consistent about completing homework assignments, but often forgets to actually turn them in unless individually reminded. Sometimes it takes Taylor longer than other students to complete writing assignments or to follow teacher instructions; however, Taylor is typically a hardworking student. Taylor has particular difficulty in reading comprehension and writing. Taylor rarely speaks to other children or pays attention to other classmates’ conversations, instead preferring to be alone during periods of free time. At other times, Taylor may approach you in order to share a story about a favorite TV show at great length.

During lunch, Taylor likes to eat at a particular bench in the shaded area of the playground and has become quite upset with students if they try to sit in this spot, sometimes yelling angrily at them to move. In the afternoons, it seems as though Taylor does not pay attention to lessons given on the overhead projector and often will not look up at you or the screen. Taylor rarely raises a hand in class to participate, and sometimes has difficulty ending one task in order to switch to the day’s next lesson. Taylor also tends to become easily distracted by fidgeting or handling objects such as rubber bands, and appears irritated when such items are taken away. Taylor also appears sensitive when such behavior is corrected by you and is sometimes visibly worried after having broken a classroom rule. At the end of each day, Taylor carefully packs up belongings, taking a bit longer than other students, and becomes upset if rushed when doing so. Taylor is usually excited for the bus ride home, but becomes worried if the bus is even a few minutes late or if there is a different driver than usual.
Response to Student Behaviors Scale

Please answer the following questions pertaining to the student described in the passage you have just read. Indicate how likely you would be to respond to the student in the manner described for each scenario by clicking one of the options on the scales provided.

1. During class today, Taylor was seldom able to complete classwork during the allotted time for each lesson. How likely is it that you would provide shortened class assignments for Taylor to complete?

   Very unlikely  Unlikely  Likely  Very likely
   ○             ○          ○         ○

2. During writing time, Taylor did not finish writing a complete story by the time all the other students were done. How likely is it that you would have Taylor finish writing the story during recess?

   Very unlikely  Unlikely  Likely  Very likely
   ○             ○          ○         ○

3. When announcing to the class that it was time to turn in the previous day’s homework, Taylor did not get up to turn in completed homework. How likely is it that you would give Taylor an individual reminder to look for homework in a backpack or folder?

   Very unlikely  Unlikely  Likely  Very likely
   ○             ○          ○         ○

4. During assigned group work, it appeared that Taylor was not participating with group mates. How likely is it that you would deduct points from Taylor’s participation grade?

   Very unlikely  Unlikely  Likely  Very likely
   ○             ○          ○         ○

5. When making an announcement that it was time to stop doing work on math and for students to take out their writing notebooks, Taylor did not stop work to get out the next lesson’s materials. How likely is it that you would remove a class privilege from Taylor for not following instructions?

   Very unlikely  Unlikely  Likely  Very likely
   ○             ○          ○         ○

6. When a classmate moved the class crayon box from Taylor’s desk, Taylor shouted at the student to give them back and grabbed the box back, spilling the crayons to the floor. After having Taylor clean up the crayons, how likely is it that you would put Taylor in a time-out?

   Very unlikely  Unlikely  Likely  Very likely
   ○             ○          ○         ○

7. When students were assigned to work in pairs, Taylor was not engaged in discussion with a partner. How likely is it that you would give individual instruction to Taylor before the next partner activity on how to work with a partner?

   Very unlikely  Unlikely  Likely  Very likely
   ○             ○          ○         ○

8. During a fire drill, Taylor got up to run to the door before receiving instructions and shouted, “The stupid alarm is going off!” How likely is it that you would provide Taylor with advance notice and appropriate behavior expectations before the next fire drill?

   Very unlikely  Unlikely  Likely  Very likely
   ○             ○          ○         ○

9. After instructing students to complete an assignment individually, you notice that Taylor continues to ask a neighbor questions about the assignment. How likely is it that you would move Taylor to a desk further away from a peer?

   Very unlikely  Unlikely  Likely  Very likely
   ○             ○          ○         ○
10. When making an announcement to the class that it was time to line up to go to weekly music class, Taylor did not get up to line up with classmates right away. How likely is it that you would give Taylor a visual schedule as a prompt to be ready for music class next time?  

Very unlikely  Unlikely  Likely  Very likely  
○  ○  ○  ○

11. During an in-class reading comprehension quiz, Taylor was far from finishing the test when most other students had finished at the end of the testing time. How likely is it that you would provide Taylor with additional time to complete the test?  

Very unlikely  Unlikely  Likely  Very likely  
○  ○  ○  ○

12. When you announced that the class should finish up work and pack up to get ready to go to a school assembly, you notice that Taylor remained seated and did not begin gathering up belongings. How likely is it that you would announce that the class must wait, since Taylor is not ready?  

Very unlikely  Unlikely  Likely  Very likely  
○  ○  ○  ○

13. During a class lesson today, Taylor answered a question without first raising a hand. How likely is it that you would praise Taylor for giving an answer?  

Very unlikely  Unlikely  Likely  Very likely  
○  ○  ○  ○

14. When students are asked to turn to their neighbor to discuss one event that they learned about during today’s history lesson, you hear Taylor telling a classmate all about his favorite show on the History Channel. How likely is it that you would tell Taylor that it’s not okay to go off-topic?  

Very unlikely  Unlikely  Likely  Very likely  
○  ○  ○  ○
Teachers’ Attitudes Scale

Please indicate your level of agreement with the following statements pertaining to the same hypothetical student, Taylor, using the scales provided.

1. I believe Taylor would do well in my classroom.
   | Strongly Disagree | Disagree | Neither Agree/Disagree | Agree | Strongly Agree |
   | ○                 | ○        | ○                      | ○     | ○             |

2. I feel I do not have adequate school resources for teaching a student like Taylor in my classroom.
   | Strongly Disagree | Disagree | Neither Agree/Disagree | Agree | Strongly Agree |
   | ○                 | ○        | ○                      | ○     | ○             |

3. It is likely that Taylor will graduate from high school in the future.
   | Strongly Disagree | Disagree | Neither Agree/Disagree | Agree | Strongly Agree |
   | ○                 | ○        | ○                      | ○     | ○             |

4. Taylor will obtain skills to build relationships with peers in the future.
   | Strongly Disagree | Disagree | Neither Agree/Disagree | Agree | Strongly Agree |
   | ○                 | ○        | ○                      | ○     | ○             |

5. I feel Taylor might struggle as a student in my classroom.
   | Strongly Disagree | Disagree | Neither Agree/Disagree | Agree | Strongly Agree |
   | ○                 | ○        | ○                      | ○     | ○             |

6. I would feel comfortable teaching a student like Taylor in my class.
   | Strongly Disagree | Disagree | Neither Agree/Disagree | Agree | Strongly Agree |
   | ○                 | ○        | ○                      | ○     | ○             |

These questions are designed to help us gain a better understanding of the kinds of things that create difficulties for teachers in their school activities. Please indicate your opinion about each of the statements below using the scale provided. All information will remain confidential and will not be reported to your school.

<table>
<thead>
<tr>
<th>How much can you do?</th>
<th>Nothing</th>
<th>Very little</th>
<th>Some influence</th>
<th>Quite a bit</th>
<th>A great deal</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) (2) (3) (4) (5) (6) (7) (8) (9)</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

1. How much can you do to control disruptive behavior in the classroom? (1) (2) (3) (4) (5) (6) (7) (8) (9)

2. How much can you do to motivate students who show low interest in school work? (1) (2) (3) (4) (5) (6) (7) (8) (9)

3. How much can you do to get students to believe they can do well with school work? (1) (2) (3) (4) (5) (6) (7) (8) (9)

4. How much can you do to help your students value learning? (1) (2) (3) (4) (5) (6) (7) (8) (9)

5. To what extent can you craft good questions for your students? (1) (2) (3) (4) (5) (6) (7) (8) (9)

6. How much can you do to get children to follow classroom rules? (1) (2) (3) (4) (5) (6) (7) (8) (9)

7. How much can you do to calm a student who is disruptive or noisy? (1) (2) (3) (4) (5) (6) (7) (8) (9)

8. How well can you establish a classroom management system with each group of students? (1) (2) (3) (4) (5) (6) (7) (8) (9)

9. How much can you use a variety of assessment strategies? (1) (2) (3) (4) (5) (6) (7) (8) (9)

10. To what extent can you provide an alternative explanation or example when students are confused? (1) (2) (3) (4) (5) (6) (7) (8) (9)

11. How much can you assist families in helping their children do well in school? (1) (2) (3) (4) (5) (6) (7) (8) (9)

12. How well can you implement alternative strategies in your classroom? (1) (2) (3) (4) (5) (6) (7) (8) (9)

Back | Continue
Demographics and Professional Experience Questionnaire

In this final section of the survey, please answer the following questions about yourself and your teaching background. All information will remain confidential and will not be reported to your school.

1. Please select the number of years you have been teaching.
   Dropdown options:
   0-3 years
   4-6 years
   7-9 years
   10+ years

2. What grade levels have you previously taught? Please select all that apply.
   - Pre-K
   - Kindergarten
   - First
   - Second
   - Third
   - Fourth
   - Fifth
   - Middle School
   - High School

3. What grade level are you currently teaching? Please select all that apply.
   - Pre-K
   - Kindergarten
   - First
   - Second
   - Third
   - Fourth
   - Fifth
   - Middle School
   - High School

4. What is your highest level of education?
   Dropdown options:
   Bachelors
   Masters
   Doctorate
   Other

5. Have you ever received training in special education?
   Dropdown options:
   Yes
   No

6. Have you ever attended a conference, training, or in-service session regarding students with disabilities?
   Dropdown options:
   Yes
   No

7. Do you currently have access to special education resources or in-service training?
   Dropdown options:
   Yes
   No
Demographics and Professional Experience Questionnaire (Continued)

8. Are you currently teaching in an inclusive classroom?
   Dropdown options: Yes No

9. Are you currently teaching any students with special needs?
   Dropdown options: Yes No

10. What is your gender?
    Dropdown options: Female Male

11. Please select the age group to which you belong.
    Dropdown options:
    - Under 25
    - 25-29 years
    - 30-39 years
    - 40-49 years
    - 50-59 years
    - 60+ Years

12. What city are you currently teaching in?

13. What state are you currently teaching in?

Thank you for completing the survey. To complete your participation in this study, please click on the button to submit your answers below:

[Back] [Submit]
Appendix C

Disclosure Statement

Information Regarding the Online Autism Training Resource
Your answers have been successfully submitted! Thank you for your participation in this study. A detailed disclosure for this study along with information on how to access your free online training is outlined below.

Disclosure Statement

This study has been conducted through the Center for Autism and Related Disabilities at the University at Albany, SUNY. The purpose of this study is to see whether disclosure of a student’s diagnosis of autism affects teachers’ attitudes towards a hypothetical student’s behaviors, teachers’ expectations for the student, and teachers’ feelings of efficacy. Participants were randomly assigned to read one of two vignettes about a hypothetical student. In one condition, the vignette stated that the student described in the vignette has an autism spectrum disorder. In the other condition, the vignette did not include this piece of information. If you would like more information regarding this study please contact the study’s principal investigator, Laura Hiruma, at Laura.hiruma01@albany.edu or (518) 442-2574.

Redeem Your Free Online Training

To compensate you for your participation in the study, you now have the option to access a free online training entitled “Responding to the Needs of Students with Autism Spectrum Disorders” developed for educators by the Center for Autism and Related Disabilities (valued at $75.00). You will receive an email within two business days containing login information and a link to the course’s main website. You will have continued access to this free webinar training for one month following today’s date. For questions related to your access to this free online training you may also contact Laura Hiruma at Laura.hiruma01@albany.edu.

Please remember to exit your browser window once you have reviewed the information on this page.
Table I

Participant Demographics

<table>
<thead>
<tr>
<th>Characteristics</th>
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<td>Age</td>
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<td>60+ years</td>
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Table II

*Participants’ Mean Scores between the Two Vignette Conditions*

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<td>Use of Positive/Support Practices*</td>
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<td>Use of Punishment-Based Practices</td>
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<td>Expectations of Student</td>
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<tr>
<td>Teacher Self-Efficacy Scores</td>
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Note. * Indicates significant difference between group means in one-way ANOVA analysis, p<.05.
Table III

*Relationship between Teacher Self-Efficacy, Attitudes, and Responses to Student Behavior*

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<th>Correlational Analysis</th>
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<th>p</th>
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<td>.195</td>
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<td>Self-Efficacy Scores and Use of Positive Approaches</td>
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<td>.032</td>
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<td>Self-Efficacy Scores and Use of Punishment Approaches</td>
<td>56</td>
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Note. * Indicates significant correlation, p<.05.
### Table IV

**Participants' Professional Experience**

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<th>Question</th>
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<td>Do you currently have access to special education resources or in-service training?</td>
<td>49</td>
<td>87.5</td>
<td>7</td>
<td>12.5</td>
</tr>
<tr>
<td>Are you currently teaching in an inclusive classroom?</td>
<td>25</td>
<td>44.6</td>
<td>30</td>
<td>53.6</td>
</tr>
<tr>
<td>Are you currently teaching any students with special needs?</td>
<td>53</td>
<td>94.6</td>
<td>3</td>
<td>5.4</td>
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Figure 1. Mean Differences in Teachers' Responses to Student Behavior