

TEACHERS' VIEWS ON INCLUDING
CHILDREN WITH AUTISM
IN GENERAL EDUCATION SETTINGS

by

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ABSTRACT

In recent years, there has been a growing movement for including children with special needs into general education classrooms. Some of the special needs children who are participating are children with autism. Autism is a developmental disorder that affects young children, and is usually diagnosed around the age of three. Many different types of educational programs and inclusion programs have been developed specifically for these children. Teachers are one of the main aspects of these programs that determine their success.

Teachers may need some assistance and preparation to successfully mainstream and include children into their classrooms. Researchers have studied this topic by looking at a variety of variables. Some of the significant variables that the literature has discussed that could contribute to the teachers' willingness and readiness are efficacy, experience, and how feasible they think making certain adaptations are. The present study surveyed Humboldt County elementary school teachers, in general and special education, to investigate these variables and the relationships between them. There were 93 teachers who participated; 74 were regular education teachers and 19 were special education teachers.

Teachers' willingness to include children with autism was found to be correlated with a several variables including the Teaching Efficacy Scale, Adaptation Scale, Value of Support Scale, and with variables related to the teachers' experience with autism. Significant relationships were found between the Efficacy Scale and the Adaptation Scales for the teachers, suggesting that teachers who had a higher perceived teaching efficacy found it more feasible to make adaptations in teaching and in the classroom.

Four variables were found to be significant predictors of general education teachers' willingness to include children with autism in their classrooms. These variables were the Handling Difficulties Efficacy Subscale, Involvement Adaptation Subscale, being more willing with an aide, and valuing more training on autism. The findings of this study could be used to determine placements for children and have implications for providing teachers with appropriate resources and training.

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To the children with autism and the families that I work with, you are truly unique and amazing. Your daily successes and struggles are to be greatly admired.

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TEACHERS' VIEWS ON INCLUDING CHILDREN WITH AUTISM IN GENERAL EDUCATION SETTINGS

In recent years, there has been a strong movement for including children with special needs into general education classrooms. Of the groups of children in particular, who are beginning to be included into these classrooms, are children with autism and other related disorders. Even though the first definition of autism was proposed decades ago, there is still so much that is scientifically undetermined in this field. Each case of autism is unique in itself. No two individuals will necessarily display the same behaviors or have the same sensitivities. Therefore determining an appropriate educational setting could be a difficult task.

It is important that the educational placement be in a setting where the child is going to be successful. If the choice is for the child to be included into a general education classroom, it is vital that the environment is properly prepared and set up for success. One of the key aspects that can help the child be successful in the classroom is the teacher's attitude. Schumm and Vaughn (1991) pointed out that success relies on teachers' willingness to accept and make adaptations for students with special needs.

The purpose of this thesis was to assess elementary school teachers' views about including children with autism in general education settings. A more specific interest was in the teachers' willingness to make modifications in the classroom and in the curriculum, as well as the teachers' feelings about their own personal teaching efficacy. These factors in addition to the teachers' previous working experience with children with autism may be valuable in understanding the dynamics of teachers and their attitude towards inclusion.

When working with people with autism, it is helpful to understand the behaviors that are associated with the disorder and the different methods that can be used in order to enhance learning. The first definition of autism was offered by Leo Kanner, who proposed the diagnosis of infantile autism in 1943. Kanner (1943) studied eleven children who were developing atypically, each as an individual case, and reported the array of behaviors he observed among them. Kanner's observations led to discussion of the distinctive behaviors and characteristics that these children had in common. He described what he called a "unique 'syndrome'", based on the characteristics and behaviors he had observed (p.242). These characteristics and behaviors included an inability to relate to others in the ordinary way, a desire to disregard and ignore the outside world, delayed speech acquisition, delayed echolalia, an "excellent rote memory", a marked limitation in spontaneous activities, an "insistence on sameness", and the ability for good cognitive skills with normal physical appearance (p.243,245).

Since Kanner's definition, there has been continuous research to unravel the mystery of autism. The American Psychiatric Association (1994) classifies autistic disorder by looking at the symptoms of the child and comparing them to the definitional criteria that are listed in the Diagnostic and Statistical Manual, Fourth Edition (DSM-IV). The diagnosis of autism generally comes before the age of three, is life-long, and requires six of the twelve criteria listed in the DSM-IV. The criteria are grouped into three categories: impairment in communication, social difficulties, and behavior. Many of the characteristics that Kanner observed are included in the DSM-IV. The entire diagnostic criteria for autism are listed in Appendix A.

As far as the occurrence of autism is concerned, the exact rates of incidence are unclear. In a report to the legislature however, the Department of Developmental Services (1999) reported that, based on large-scale surveys in the United States and England, the most cited incidence statistic is that autism occurs in 4.5 of every 10,000 live births. In addition, the American Psychiatric Association (1994) stated that autism occurs four to five times more often in males than in females. They also reported that it is also more likely that the females with autism will display severe mental retardation than will males. The difficulties with identification and diagnosis of autism have contributed to the lack of clear statistics concerning autism.

Based on this information and more, many professionals and physicians have developed different treatment and teaching strategies for this select group of children. However, the uniqueness of this developmental disorder has caused some professionals to disagree about the various types of treatments and educational programs designed for children with autism. Given that not all autistic children have the same characteristics, behaviors, or reactions to stimuli, it can be difficult to establish the best type of treatment or educational program that is going to be suitable for the individual child. Treatments have ranged from medications to an array of therapies, including behavior modification and physiological therapies. There are, however, a few educational programs that have resulted in documented positive outcomes for these children.

Two of the more prominent programs are the University of California at Los Angeles (UCLA) Young Autism Project and Project TEACCH or Treatment and Education of Autistic and Related Communication Handicapped Children. The UCLA

Young Autism Project was started in 1970 by Ivar Lovaas and colleagues. Their project is an intensive behavioral intervention program that relies on discrete trial discrimination learning and compliance with simple commands and immediate reward for successful performance (Gresham, Beebe-Frankenberger, & MacMillan, 1999, p.562). The curriculum is tailored to the individual child, incorporating the child's areas of interest and focusing on certain areas of need. Children are instructed by several trained therapists and can work up to 40 hours a week in one-to-one therapy sessions. Lovaas (1993) has reported substantial gains in the children's intellectual and educational functioning. These were seen to be long-term increases. In addition, social, emotional, and other behaviors were also found to improve over a long-term period.

Discrete trial teaching uses some of the principles from applied behavior analysis. The concepts of antecedent, behavior, and consequence; behavior shaping; and reinforcement are a few examples. The concepts of antecedent, behavior, and consequence can be used together to form an ABC observation, which can be used in monitoring and changing behaviors. An antecedent is a stimulus or event that happens before a target behavior. The target behavior is the behavior that is to be modified. The consequence is the event or stimulus that happens after the behavior. Reinforcement is an event that occurs following a behavior, and results in an increase in the occurrence of the behavior in the future. Behavior shaping is a technique that uses reinforcement to build closer and closer approximations of the desired behavior (Miltenberger, 1997).

Other specific techniques that discrete trial teaching utilizes are breaking skills into smaller parts, prompting, and only presenting small amounts of information at a time (Leaf & McEachin, 1999). These techniques are used when teaching any number of skills, which may include basic living skills, play and socialization skills, or educational skills. The UCLA Young Autism Project has become a model for many other related programs that currently exist for young children with autism.

Another program that was developed for children with autism is Project TEACCH. This program was founded in 1971 by Eric Schopler at the University of North Carolina at Chapel Hill in the Department of Psychiatry. TEACCH focuses on combining classroom teaching, parental training, and other support services. One of the main priorities in this program is the parent-professional collaboration. In addition to this collaboration, the program incorporates six principles that guide both the clinical and research practices. These principles are a combination of specific goals, adaptations, and inclusive applications of ideas (Campbell, Schopler, Cueva, & Hallin, 1996).

A unique aspect of this particular project is that many of the TEACCH principles have been applied in the public schools. The basis of TEACCH is a structured teaching system that takes into consideration the individual child's needs and developmental level. Some of the components that are involved in this type of teaching are physical organization, schedules, work systems, and task organization. In addition, TEACCH accentuates developing a variety of skills by utilizing the visual processing

strengths of children with autism. The program takes advantage of the use of visual prompts or cues to help advance their vocational, social, and living skills (Gresham, et al., 1999).

While these programs continue to be helpful for children with autism and their families, there is growing momentum for children to be included into general education settings. Kellegrew (1995) found that one of the methods advocated for increasing skill acquisition, skill generalization, and maintenance was teaching in the natural environment. In addition to the possible benefits that inclusion could have for children with autism, the U.S. Congress passed an act that entitles children to have such an education.

The current special education law, IDEA or Individuals with Disabilities Education Act (PL 101-476), was amended in 1990 and applies to children with disabilities between the ages of 3 and 21 years of age. Two important parts of this law are that the children are entitled to a free and appropriate education, as well as the idea that children are to be placed in the least restrictive educational environment. For younger and elementary school aged children, participation in general education environments is promoted (Kellegrew, 1995).

Children with disabilities can participate in general education environments in one of two ways, mainstreaming or inclusion. Kellegrew (1995) described mainstreaming as integrating a student with disabilities into an environment with children who do not have disabilities. In this situation the child's primary class placement is a special education classroom, and the child is mainstreamed into a general

education classroom during specific times or to participate in certain activities. With inclusion, the child's primary class placement is in the general education classroom. The child is still eligible to receive special education services, which can be provided in the general education classroom.

The decision about any single child's placement is usually determined by several people, including parents and professionals. The people involved with this decision are a part of an Individual Education Plan (IEP) team. The team consists of the parent(s), teachers, administrator, speech therapist, and possibly other professionals. The IEP itself serves as a contract between the school and the parents, which provides appropriate services for the child. The final choice to include a student should be considered carefully, and should be appropriate for the development of the child. Inclusion strategy is still a new area for the field of autism, and most of the research that has been done has looked at students with other disabilities (Mesibov & Shea, 1996). Recently Myles and Simpson (1998) found that only 4.7% of students with autism are served in general education classrooms. Inclusion of children with autism is a controversial topic.

Mesibov and Shea (1996) conducted a meta-analysis and reported that there have been a limited number of empirical studies that have directly addressed the needs of autistic students in integrated and included settings. The majority of the previous research has focused on children with mild disabilities, and cannot be generalized to this specific group of children. The researchers mentioned a few studies that focused specifically on students with autism; however, the findings were limited. The studies

were limited by significant methodological problems, as well as not finding statistical significance in a study comparing two groups. The authors then summarized that the literature that was reviewed did not provide an adequate “foundation for empirically based decisions about the benefits of this approach for this group of students” (p.342).

Mesibov and Shea concluded their article with important considerations about educating children with autism. A point in particular is that, in order to teach students with autism successfully, there needs to be an understanding of the characteristics of this developmental disability. This includes the unique cognitive, social, sensory, and behavioral deficits that these individuals have. The authors also concluded that not all students with autism would be able to learn from the traditional teaching strategies, but could benefit from other specialized teaching methods, which may not be available to them in an inclusion environment. The authors were also concerned about the modifications that would need to be made and whether or not teachers would be able to make the proper adaptations and feel comfortable teaching these children. Although the authors thought that the philosophy of inclusion was worthwhile, they did not want to see the smaller more specialized programs for children with autism eliminated.

Burack, Root, and Zigler (1997) also reviewed the previous literature available about inclusion and autism. They discussed the criticisms of, and arguments for inclusion for children with autism. The criticisms that these authors discussed were similar to the criticisms that Mesibov and Shea (1996) discussed. The concerns were that there was not enough scientific information or validation of this model, that the model may not be able to meet the special and divergent needs of the population, and

that there may have been too much emphasis on the moral issues of the educational model and not enough emphasis on the particular educational needs that may need to be met on an individual basis.

Included in the arguments for including students with autism, was a discussion of the rights of the children and the benefits that the child could receive from being educated in an integrated setting. Burack, Root, and Zigler reported that some advocates of inclusion believe that children have an inherent human right to be educated in a setting with their peers. Since the legislation was passed to support the education of students with special needs in the least restrictive environment, this right to education has been a strong argument. The benefits for the children in included settings include improved educational and social development. Some of the educational benefits that were discussed covered areas such as increases in language ability and increased learning ability for children with autism. The social benefits for the students with autism included increased free-time social interactions with peers and increased levels of initiations and responses with other children (Burack, Root, & Zigler, 1997).

Despite the disagreement about autism and inclusion, there are some general aspects that are agreed upon that relate to educating individuals with autism. Burack, Root, and Zigler (1997) found these to be “the importance of individualized curricula, concern about many domains of functioning (social, cognitive, communicative, prevocational, adaptive, and so on), and thoughtful planning to ensure that programs are well implemented and monitored” (p.796). The role of teachers was also discussed as being an integral part of this process. If inclusion is going to be successful teachers

need to understand the general characteristics of the disorder, anticipate behaviors that may occur, and know appropriate ways to explain them to the other students (Burack, Root, & Zigler, 1997).

The inclusion models that have been developed for children with autism, have included the above mentioned features and have emphasized the need for collaboration and support as well. Myles and Simpson (1998) developed a model, which they titled the Autism Inclusion Collaboration Model. This model emphasizes collaboration between general educators with special educators and ancillary staff. It was designed so that proper support was given to general educators working with students with autism. Four major components operate together in this model: environmental and curricular modifications and general classroom support, attitudinal and social support, coordinated team commitment, and home-school collaboration.

The environmental and curricular modifications and general classroom support component includes the availability of proper support staff (special education teachers, speech pathologists, psychologists, occupational therapists, physical therapists, and other professionals), smaller class sizes, collaboration between professionals, adequate planning time for teachers (one hour daily), availability of paraprofessionals or classroom aides for the children, and ongoing in-service training. In addition to these features of the program, positive teacher and administrative attitudes toward successful inclusion is a necessity (Myles & Simpson, 1998). These same researchers revealed from previous studies, that general education teachers tend to feel unprepared to deal

with special needs students, but think that inclusion is a positive instructional design if they were properly trained and had adequate support staff. These variables are important in developing a successful situation for a student with autism.

Other methods of inclusion for children with autism (Russo & Koegel, 1977; Connor, 1999) have also emphasized the importance of comprehensive and individualized programs, while having a qualified support staff for the student and the general educator. Including students with autism in general education settings is a very involved process, which teachers should be prepared for. So far the literature regarding inclusion have identified teachers' attitudes as vital factors in this unique educational endeavor. Yet, the teachers' attitudes have been varied in their opinions of the subject. While some studies have found teachers to be unwilling to have special needs children in their classroom, others have felt with the proper support they would be willing.

In a study by Stephens and Braun (1980) teachers' willingness to accept children with special needs was correlated with a variety of different variables to identify predictors of teacher willingness. After surveying 795 general education classroom teachers, 61% of them indicated a willingness to integrate children with exceptional needs. The three significant predictor variables of the teachers' willingness included the teacher's confidence in their ability to teach exceptional children, their belief that handicapped children can become useful members of society, and the belief that public schools should educate handicapped children. In addition to the three predictor variables found, the present grade level that the teacher was teaching was also related to willingness. Teachers of primary and middle grade aged students were more

willing to integrate handicapped children than teachers of seventh and eighth grades.

The knowledge about teaching exceptional children was measured by the number of special education courses taken by the teacher. Willingness was greater in teachers who had taken higher numbers of special education courses. Teachers who had taken special education courses were more willing to include exceptional children than those who had not taken special education courses. The other two predictor variables were measured as items in the questionnaire. Teachers who believed that handicapped children could become useful members of society and that they should be educated in public schools were also more willing to accept children with special needs into their classrooms. Their study suggested that teachers' confidence should be further studied as an important factor in determining the teachers' willingness to integrate children with disabilities (Stephens & Braun, 1980).

Knoff (1985) conducted a study to examine teachers' attitudes toward mainstreaming and their perceptions of exceptional children. He surveyed 211 elementary school teachers, in both general education and special education, in the states of New York and Massachusetts. He chose these two states because each had differing laws regarding the assessing and labeling of children with special needs. Knoff reported that in Massachusetts, children with learning and developmental difficulties are not labeled with a specific disorder, and it is simply determined that the child needs special education. However, in New York, children with special needs are labeled with a specific disorder. Besides the general mainstreaming attitudes, Knoff

was curious to see if the labeling of the children made a difference in the teachers' perceptions of mainstreaming. In addition he also investigated the teachers' knowledge of the special education laws.

The results showed that the majority of the participants felt that general education teachers did not have the skills to assist exceptional children and felt that the special education classrooms were more effective for the mildly handicapped. Between the two states, the Massachusetts general education teachers felt less imposition than did the New York regular educators, when confronted with children with special needs. Another interesting difference between the two states was that the New York special educators felt more strongly than the Massachusetts special educators that the special education classrooms had appropriately served the exceptional children, yet the New York special educators also indicated that the special education programs were inadequate and needed to be changed (Knoff, 1985).

With respect to knowledge of the special education laws, the special education teachers in both states felt a strong awareness of the laws, while the general education teachers in both states did not feel as though they were very knowledgeable about the laws. This article concluded by summarizing the recommendations. One of the recommendations was for all educators to understand the special education laws and the mandated responsibilities of all professionals participating in the special education process. Knoff stressed the importance of understanding the need for general and special educators to communicate and coordinate their services with exceptional

children. Furthermore, he pointed out that the need to periodically investigate attitudes toward mainstreaming across different geographic areas, different classification procedures, and different participating educators (Knoff, 1985).

Schumm and Vaughn (1991) conducted research to specifically investigate how general education teachers perceived making adaptations in the classroom and in the curriculum. The desirability and feasibility of the adaptations were rated on a Likert-type scale ranging from low to high for each item. It was expected that there would be differences between the desirability and feasibility of the adaptations, as well as differences between types of adaptations. Each grade grouping of the schools, elementary, middle, and high school, was represented in the study, and 93 general educators were surveyed in all. The results found significant differences for all the items when compared on feasibility and desirability. All the items were rated more desirable than feasible, with all the desirability ratings having a mode of 7, high desirability. As a whole, teachers did not see adaptations in curriculum, environment, and instruction to be feasible. The adaptations they were willing to make were to include the mainstreamed children in whole group activities and provide support and encouragement for their educational success. The researchers recommended that teachers who are expected to include children with special needs should be trained and prepared with skills that would help to make adaptations more realistic and appropriate (Schumm & Vaughn, 1991).

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Minke, Bear, Deemer, and Griffin (1996) surveyed teachers' attitudes regarding inclusion of children with mild disabilities. Included in their study were the teachers' perceptions of their own self-efficacy, competence, and job satisfaction. The sample of teachers who were used for their study, were members of a school district that had children with mild disabilities already included in general education. The classrooms were called TAM or Team Approach to Mastery classes, in which a general and special educator taught together the entire school day. Thus the sample included general teachers in general classes, special education teachers, and also general and special educators who already had experience in inclusion programs.

The teachers who responded to the survey taught grades K-6, and included 185 general education teachers in traditional settings, and 71 general education teachers and 64 special educators who were in inclusive settings. There were significant group differences on the measures of personal teaching efficacy, competencies to teach exceptional students, and the feasibility to make adaptations in the classroom. However, the general and special education teachers in inclusive settings did not differ significantly from each other. The differences were between general education teachers in traditional settings and teachers in inclusive settings. On the measure of personal teaching efficacy, the general education teachers in traditional settings showed significantly lower personal efficacy than the regular and special education teachers in inclusion settings. The general education teachers in traditional settings also rated

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themselves as less competent than the other two groups in managing behavior of students with disabilities. And, the general education teachers also thought that adaptations were less feasible than the other two teacher groups (Minke, et al., 1996).

Minke et al. (1996) discussed the interpretation of their findings and the areas that need further research and understanding. The general attitude among the teachers was that traditional classrooms were not as suitable for meeting the needs of students with mild disabilities. However, there were some positive views toward inclusion associated with the specific TAM program. The authors commented on the importance of the personal teaching efficacy, and stated that high-efficacy teachers may have different strategies when facing challenging situations. This could be important when developing a successful inclusion model. Although regular teachers in traditional settings found adaptations to be less feasible, it was not clear why this was. The researchers believed that further understanding of these factors could be critical for making inclusion programs work.

The literature review presented here has covered previous studies dealing specifically with autism as well as teacher attitudes toward mainstreaming and inclusion. Autism is a lifelong developmental disorder that has been researched and studied in a variety of aspects. The educational aspect is one of these. Models for including and mainstreaming autistic children have been developed to assist in this area. Some of the important qualities that have been found to contribute to a successful education for this group of children include recognition of their individual differences and needs, involvement of parents, and the role of the classroom teacher.

The studies on teacher attitudes found important variables that related to the topic of mainstreaming and including children with special needs. Teachers' willingness and general attitudes are areas that have been studied. Other variables that have been examined include knowledge of special education laws, personal teaching efficacy, and ability to make adaptations in the classroom. The ideas from the educational models for children with autism and the ideas from previous research in the area of teacher attitudes toward mainstreaming were both considered in this study. The purpose of the present study was to investigate teachers' attitudes that reflect their personal teaching efficacy and the feasibility of making curricular and other classroom adaptations in relationship with their willingness to include students with autism.

Hypotheses

In the present study, this researcher has incorporated some of the same significant variables from the literature into hypotheses. Five different hypotheses were examined in the present research.

- 1) Special education teachers were expected to have a higher mean personal teaching efficacy than general education teachers.
- 2) Special education teachers' views of making adaptations were expected to have higher mean scores than those of general education teachers.
- 3) The number of special education courses that a general education teacher has taken was expected to positively correlate with their personal efficacy and willingness to make adaptations.

4) Teachers' amount of experience with autistic children was expected to be positively correlated with their willingness to have an autistic child as their student.

5) The general education teachers' class size was expected to negatively correlate with their willingness to include a child with autism into general education.

METHOD

Participants

The participants included special and general education teachers in the Humboldt County area. There was a total of 93 teachers surveyed, 74 general education teachers and 19 special education teachers. The teachers who were asked to participate were from the elementary schools throughout the Humboldt County area. Access to the participant pool was obtained by gaining the permission from the principals or the superintendents of the particular schools via letter (Appendix B).

Measures

The measures that were used in this study consisted of a compilation of surveys in one questionnaire (Appendix D). The first part of the questionnaire included questions regarding the teachers' demographic information. Included in this part of the questionnaire were questions concerning the teachers' experience with children with autism and their willingness to teach them in a general education classroom. The second part of the questionnaire was an adapted version of the Teacher Efficacy Scale (TES), which was designed by Gibson and Dembo (1984). The portion of the scale that was used included the items from the Personal Teaching Efficacy Factor. There were nine questions that included statements which the respondents rated on a 6-point Likert-type scale, ranging from strongly disagree to strongly agree. Internal consistency reliability was measured by Cronbach's alpha coefficient for each factor of the scale. The Personal Teaching Efficacy Factor had a coefficient of .78. The third part of the questionnaire included items from the Adaptation Evaluation Instrument (AEI)

(Schumm & Vaughn, 1991). The original scale included 30 items, which were rated on desirability and feasibility. However, in this study the items were only rated on feasibility and not all of the original items were included. The rating was also on a 6-point Likert-type scale, ranging from highly unfeasible to highly feasible. The reason for eliminating the desirability ratings was that in the previous research all the items were rated equally desirable, while there were variations in the feasibility ratings. Also, some of the original items were not applicable to the population of students that I am interested in. Internal consistency reliability was measured by the Cronbach's alpha coefficient, and a coefficient of .95 was obtained for the feasibility subscale.

The last part of the survey consisted of a list of 5 items that were to be rated on how valuable they would be to the teacher in facilitating their willingness to include a child with autism in their classroom. The rating scale ranged from 1-6, with 1 being not at all valuable and 6 being extremely valuable. The items included: more training, more aides, more teaching materials, assistance modifying curriculum, and positive parent support. This will be referred to as Valuing of Support Scale.

In addition, a cover letter (Appendix C) accompanied the survey that informed the teacher of the nature of the study and reasons for conducting it. The cover letter insured the teachers' anonymity and confidentiality. Contact information for those who may have had further questions was provided as well. This information included my name, major department, home phone number and email address, as well as the name of my thesis chair, title, department, and office phone number. The letter was printed on university letterhead, which also included the address of the university.

Other materials included stickers that served as incentives for completion and return of the survey. These items were intended for teachers to use in their classrooms with their students.

Procedure

This study was approved by the Committee for the Protection of Human Subjects in Research at the Humboldt State University campus on November 16, 2000. The thesis approval number given was (00-94). The sample of teachers was obtained from elementary schools throughout the Humboldt County area. Teachers were from elementary school campuses that taught grades kindergarten through sixth grade, kindergarten through fifth grade, or kindergarten through fourth grade with a staff of twelve teachers or more. The cover letters and accompanying surveys were distributed to the teachers through the use of Humboldt County Office of Education's interschool mail system. The approval to use this mail system was given after a meeting with the assistant superintendent of the Humboldt County Office of Education.

An initial letter was sent to each principal or superintendent of the individual schools, which informed them of the nature of the research and the researcher's intent to distribute surveys to the elementary school teachers. The contact information for the researcher and faculty advisor was provided so that questions and concerns of the principals or superintendents could be addressed. A response was requested if they did not wish for the teachers of their school to receive the surveys. No negative responses were given to the researcher or faculty advisor within the requested amount of time. The research then proceeded to the next step.

The surveys were then distributed to each school with the individual envelopes being personally addressed. The names of the teachers in the selected schools were taken from the Humboldt County Public Schools Directory 2000-2001. A total of 272 surveys were distributed, of which 239 were general education teachers and 33 were special education teachers. The surveys were numerically coded for ease of data entry, but were not recorded in any way to associate the code with the individual teachers. Included in the directions printed on the survey was a request that the teachers not put their names directly on the survey itself. This ensured their anonymity and confidentiality. The questionnaire should have taken approximately 15-20 minutes to fill out. The teachers were provided with a self-addressed, postage-paid envelope in which to return the survey. The teachers were asked to return the survey by April 1, 2001. Surveys were returned to the researcher through a personal mailbox in the Psychology Department office.

Risks and Benefits

Since the research was conducted with surveys as the only form of gathering information from adult participants, there were minimal risks involved in this study. One of the possible risks was minor psychological distress, such as stress or anxiety about completing the survey or because of the survey topic itself. However, the survey was completely confidential as well as totally voluntary. If at any time the participant felt as though they did not want to continue to fill out the survey, they could discontinue from doing so. In addition, there was a cover letter that accompanied the survey explaining the study. It included a description of these rights and as well as contact

phone numbers and email addresses if there were any concerns. The contact numbers and email addresses given included those of the researcher and the thesis advisor. None of the teachers contacted my advisor or myself to express any concerns.

The potential benefits of this study outweigh the risks. The findings of this study could be used to increase awareness of the possibility of including children with autism in general education classrooms. The ultimate goal is that the children may be in an environment that will be able to support their growth and learning. The findings may also determine what the teachers feel they need in order for inclusion programs to be successful. Another benefit might be that these teachers' attitudes would be considered in designing an appropriate inclusion model for the future. This study may also provide future research ideas in this subject area.

Data Analysis

After all of the surveys were collected the data was entered into the computer for analysis. The Statistical Package for Social Sciences (SPSS) was the computer program used for this process. Frequencies and descriptive statistics were found for the all of the demographic data from the teachers, as well as for the other variables. Factor analysis was conducted on each of the individual scales included in the survey, which were the Personal Teaching Efficacy and the Adaptation Evaluation Inventory (AEI). In addition, one-way analysis of variance (ANOVA) was used to compare the regular and special education teachers on their respective scores on each of the measures. Multiple regression analysis was used to identify variables that were

significant predictors of teachers' willingness to include children with autism. For the rest of the data, Pearson correlations were used to determine significant relationships between the other variables.

RESULTS

Demographic Information

Of the 272 distributed surveys, 93 (34%) were returned and included in the data set. The 93 respondents included 74 (80%) general education teachers and 19 (20%) special education teachers. In this section, percent values are given relative to the total number of teachers who answered each demographic question. There were 74 (80%) female teachers and 15 (16%) male teachers, while 4 responses for gender were missing. Of the general education teachers who stated their gender, 59 (89%) were females and 12 (17%) were males. Of the special education teachers who stated their gender, 15 (83%) were females and 3 (17%) were males. A chi-square test showed that the general and special education teachers did not differ significantly in their proportions of females and males. There were no significant differences between the male and female teachers on any of the measures except for grade level. The male teachers tended to teach higher grade levels than the females, $F(1,69)= 12.22, p<.001$.

The average number of years that the 93 participants had been teaching was 14.54 years, with a standard deviation of 8.03 years, and a range from 1 year to 32 years.

The general education teachers who responded taught grades kindergarten through sixth grade. Of the 74 general education teachers who participated, 10 (14%) taught kindergarten, 19 (26%) taught first grade, 17 (23%) taught second grade, 6 (8%) taught third grade, 4 (5%) taught fourth grade, 7 (9%) taught fifth grade, and 3 (4%) taught sixth grade. Teachers of combination classrooms included 2 (3%) in

kindergarten/first grade, 4 (5%) in first/second grade, 1 (1%) in second/third grade, and 1 (1%) in fourth/fifth grade. The special education teachers generally did not teach just one grade level, but had a range of grade levels in their classrooms.

The mean number of students the teachers had was 20.27, with a standard deviation of 4.90, and a range from 5 to 35. Regarding aides, 74 (81%) of the teachers had instructional aides assigned to their classrooms for some portion of the day or during the week, while 17 (19%) of the teachers did not have any instructional aides assigned to their classrooms. The mean number of hours daily that classroom aides worked was 2.72, with a standard deviation of 2.01. The shortest amount of time that a teacher had an instructional aide in a classroom was 30 minutes and the greatest amount of time reported was 8.5 hours.

Teachers were asked what their major was while in college, and these responses were then coded into one of five groups. The groups were Arts and Humanities, Social Sciences, Natural Resources and Sciences, Psychology, and Liberal Studies. Of the 91 teachers who responded to this question, 43 (47%) were Liberal Studies majors, 23 (25%) were in Arts and Humanities majors, 13 (14%) were in Social Science majors, 7 (8%) were Psychology majors, and 5 (6%) were in Natural Resources and Sciences majors. Regarding educational level, 66 (71%) of the teachers had obtained their bachelor's degree and teaching credential, while 27 (29%) teachers had master's degrees.

The survey asked the general education teachers if they had ever previously been a special education teacher, and asked the special education teachers if they had previously been a general education teacher. Of the 74 general education teachers, 9 (12%) had been a special education teacher in the past. Of the 19 special education teachers, 7 (41%) had been a general education teacher in the past.

Teachers were asked questions relating to the amount of instruction they had received in special education and in the area of autism. Of the general education teachers, 21 (29%) had not taken any special education courses, 18 (25%) had taken one course, 12 (17%) had taken two courses, 10 (14%) had taken from 3 to 12 courses and 11 (16%) said they had taken special education courses but did not specify how many. All of the special education teachers had special education teaching credentials, and did not list exact numbers of courses taken. Out of the entire sample of 93 teachers, 48 (52%) had not had any instruction on autism. The mean amount of instruction on autism was 3.32 hours, with a standard deviation of 7.60, and a range from 0 to 50 hours. Teachers included formal instruction as well as informal readings and meetings relating to autism as part of their instruction received.

The next two questions on the survey dealt with the teacher's work experience with children with autism. The first question referred to the amount of experience they had working with autistic children, which may have been within or outside of their own classroom. The majority of the teachers, 54 (58%), said that they had some experience working with children with autism, while 34 (37%) of the teachers said they had no experience, and 5 (5%) of the teachers said they had a great deal of experience working

with autistic children. The second question referred to the number of students with autism they had actually had in their classrooms. The number of teachers who had actually had students with autism was 49 (54%). On this question, 42 (46%) of the teachers reported having had no students with autism, while 32 (35%) of the teachers had 1 or 2, 12 (13%) of the teachers had 2 or 3, and 5 (5%) of the teachers had 5 or more students with autism.

The last two questions on the first part of the survey related to the teacher's willingness to include a student with autism in their classroom. Teachers were directly asked how willing they would be to fully include a child with autism in their classroom. The response choices were not willing, somewhat willing, and very willing. The majority of the teachers, 51 (55%), said they were somewhat willing, while 22 (24%) teachers said they were very willing, and 11 (12%) teachers said they were not willing. Of the general education teachers, the majority, 43 (64%), were somewhat willing, while 13 (19%) were very willing, and 11 (16%) were not willing. Teachers were then asked if they would be more willing if there was an aide assigned to the child, and 87 (94%) of the teachers responded yes, they would be more willing, while 2 (2%) teachers said no, they would not be more willing.

Factor Analysis of Scale Items

Factor analysis was conducted for the remaining three parts of the survey to condense their items to a smaller number of subscales. There were three different measures, the Personal Teacher Efficacy Scale, the Adaptation Scale and the Valuing of Support Scale.

Personal Teacher Efficacy Scale Factors

The nine items from the teacher efficacy scale were factor analyzed with SPSS. Principal components factor analysis with varimax rotation was performed on these items. This resulted in a two-factor solution, which accounted for 61.55% of the variance in the items. All items with more than a .500 factor loading were considered highly loading items. The items and their factor loadings are shown in Table 1.

The first factor accounted for 33.41% of the variance and was labeled Teacher Success Efficacy. The items that loaded highly on this factor related to student success with teacher assistance, in other words, how much the teacher thought that the student's success was because of teacher assistance. There were 4 items included, with loadings ranging from .766 to .821.

The second factor accounted for 28.15% of the variance and was labeled Handling Difficulties Efficacy. The items included in this factor related to teacher efficacy in handling more difficult situation with students. There were 5 items included, with loadings ranging from .561 to .759.

Efficacy subscale scores were created by averaging the teacher's responses to the items which loaded highly on that factor. These subscales were labeled as the Teacher Success Efficacy Subscale and Handling Difficulties Efficacy Subscale.

Adaptation Scale Factors

The 20 items from the Adaptation Scale were factor analyzed with SPSS as well. Principal components factor analysis with varimax rotation was performed on these items. The three-factor solution resulted in the most useful grouping of the

Table 1:

Factor Analysis of Personal Teacher Efficacy Scale (Two-Factor Model)**Factor 1: Teacher Success Efficacy**

| <u>Item</u> | | <u>Loading</u> |
|-------------|--|----------------|
| E17 | When a student does better than usual it is because I exerted a little extra effort. | .821 |
| E19 | When a student gets a better grade than he usually gets, it is usually because I found better ways of teaching that student. | .814 |
| E22 | If a student masters a new math concept quickly, this might be because I knew the necessary steps in teaching that concept. | .807 |
| E21 | When the grades of my students improve, it is because I found more effective teaching approaches. | .766 |

Factor 2: Handling Difficulties Efficacy

| <u>Item</u> | | <u>Loading</u> |
|-------------|---|----------------|
| E24 | If a student in my class becomes disruptive and noisy, I feel that I know some techniques to redirect that child quickly. | .759 |
| E25 | If one of my students couldn't do a class assignment, I would be able to accurately assess whether the assignment was at the correct level of difficulty. | .739 |
| E23 | If a student did not remember information that I gave in a previous lesson, I would know how to increase that student's retention in the next lesson. | .702 |
| E18 | When a student is having difficulty with an assignment, I am usually able to adjust it to that student's level. | .617 |
| E20 | When I really try, I can get through to most difficult students. | .561 |

adaptation items. This solution accounted for 67.78% of the variance in the items. All items had more than a .500 factor loading. The items and their factor loadings are shown in Table 2.

The first factor accounted for 28.97% of the variance and was labeled Class Format Adaptation. The items included in this factor related to the way the classroom was arranged and the manner in which it was structured. There were 10 items with high loadings included in this factor. In addition, there were 3 items that were double loaded on this and another factor. The top 5 loading items were feasibility of: adjust physical arrangement of room (.751), adapt pacing of instruction (.748), plan assignments and activities that allow a student with a disability to be successful (.718), establish appropriate routines (.708), and provide extra time for a student with a disability (.700).

The second factor accounted for 23.93% of the variance and was labeled Relationship Adaptation. The items included in this factor related to communicating with the student, parent(s), and other professionals, as well as building a working relationship with the student. There were eight items included in this factor, three of which were also loaded on Factor 1. The higher loading items were feasibility of: communicate with the parents (.837), establish a relationship with a student who has a disability (.776), communicate with other professionals (.767), and provide reinforcement and encouragement (.670).

The third factor accounted for 14.89% of the variance and was labeled Involvement Adaptation. The items in this factor related to student involvement with others and teacher involvement with a student with a disability. There were three items included in this factor, one of which was double loaded with factor 1. The three items were: involve a student with a disability in whole class activities (.839), pair the student with a classmate (.729), and monitor the comprehension of a student with a disability of directions and tasks (.569), this last item was the double loading item. All of these items and their factor loadings can also be seen in Table 2.

Adaptation subscale scores were created by averaging the teacher's responses to the items which loaded highly on that factor. Items which loaded on two factors were included in the dimension on which they loaded most strongly. These subscales were named the Class Format Adaptation Subscale, Relationship Adaptation Subscale, and Involvement Adaptation Subscale.

Valuing of Support Factor

The five items relating to valuing of support were factor analyzed with SPSS. Principal components factor analysis was performed on these items. A one-factor solution resulted in explaining 50.21% of the variance in the items. All of the items had more than a .600 factor loading. The five items related to how much the teachers valued various different types of support. The five items were: more training (.750), more aides (.742), positive parent support (.728), assistance modifying curriculum (.701), and more

Table 2:

Factor Analysis of Adaptation Scale (Three-Factor Model)**Factor 1: Class Format Adaptation**

| <u>Item</u> | <u>Loading</u> |
|--|-----------------------|
| A36 Adjust physical arrangement of room for a student with a disability (e.g. modify seating arrangements). | .751 |
| A43 Adapt pacing of instruction (e.g. breakdown materials into smaller segments). | .748 |
| A35 Plan assignments and activities that allow a student with a disability to be successful (e.g. structure tasks to reduce frustration). | .718 |
| A26 Establish routines appropriate for a student with a disability (e.g. establish setting so children know what is expected; be consistent). | .708 |
| A42 Provide extra time for a student with a disability (e.g. for skill reinforcement and extra practice). | .700 |
| A33 Make adaptations for a student with a disability when developing yearly/unit plans (e.g. establish realistic long-term objectives).* | .663 |
| A38 Use computers to enhance learning with a student with a disability (e.g. as a tool for writing or practicing skills). | .656 |
| A37 Adapt classroom materials or use other materials (e.g. construct study guides, supplemental workbooks). | .647 |
| A27 Adapt classroom management strategies that are effective with a student with disabilities (e.g. token systems). | .582 |
| A30 Help a student with a disability find appropriate ways to deal with feelings (e.g. brief times away from class).* | .537 |
| A39 Monitor the comprehension of a student with a disability of directions and tasks (e.g. ask children to repeat or demonstrate the directions; check in with them to see how they are doing).* | .535 |

Table 2 (continued)

Factor 1: Class Format Adaptation (continued)

| <u>Item</u> | <u>Loading</u> |
|--|-----------------------|
| A45 Adapt evaluations or scoring/grading criteria for a student with a disability (e.g. allow more time for tests; use oral testing). | .534 |
| A34 Make adaptations for a student with a disability when developing daily plans (e.g. view plans with an eye for possible problems for a student with a disability).* | .529 |

Factor 2: Relationship Adaptation

| <u>Item</u> | <u>Loading</u> |
|--|-----------------------|
| A32 Communicate with the parents of a student with a disability (e.g. write notes back and forth; talk informally with parents). | .837 |
| A29 Establish a relationship with a student who has a disability (e.g. get to know individual's interests and strengths). | .776 |
| A31 Communicate with other professionals (e.g. meetings and/or written communications with special education teacher, speech therapist, etc.). | .767 |
| A28 Provide reinforcement and encouragement (e.g. encourage effort; provide support if student gets discouraged). | .670 |
| A34 Make adaptations for a student with a disability when developing daily plans (e.g. view plans with an eye for possible problems for a student with a disability).* | .667 |
| A30 Help a student with a disability find appropriate ways to deal with feelings (e.g. brief times away from class).* | .554 |
| A44 Keep records to monitor student's progress (e.g. keep a folder of papers and progress charts). | .532 |
| A33 Make adaptations for a student with a disability when developing yearly/unit plans (e.g. establish realistic long-term objectives).* | .525 |

Table 2 (continued)

Factor 3: Involvement Adaptation

| <u>Item</u> | | <u>Loading</u> |
|--------------------|--|-----------------------|
| A41 | Involve a student with a disability in whole class activities. | .839 |
| A40 | Pair the student with a disability with a classmate (e.g. to provide assistance with assignments; provide models for behavior and academics; for social support). | .729 |
| A39 | Monitor the comprehension of a student with a disability of directions and tasks (e.g. ask children to repeat or demonstration the directions; check in with them to see how they are doing).* | .569 |

* Indicates items that loaded on more than one factor.

teaching materials (.613). These items and their factor loadings are listed in Table 3. Valuing of Support Scale scores were created by averaging each teacher's responses over these five items.

Tests of Hypotheses

The general and special education teachers were compared on their mean scores on each of the measures, using one-way analysis of variance (see Table 4). The first hypothesis was that special education teachers were expected to have a higher mean personal teaching efficacy than general education teachers. However, the general and special education teachers did not differ significantly from each other on the Efficacy Scale, $F(1,90)=.066, p>.05$. They also did not differ significantly on the Teacher Success Subscale, $F(1,91)=.243, p>.05$, or on the Handling Difficulties Subscale, $F(1,91)=.002, p>.05$. Thus, the first hypothesis was not supported.

The second hypothesis was that special education teachers were predicted to have higher mean scores on the adaptation measure than general education teachers. The general and special education teachers did not differ significantly from each other on the Adaptation Scale, $F(1,90)=1.53, p>.05$. However, the special education teachers (mean = 5.39) scored significantly higher than the general education teachers (mean = 4.93) on the Class Format Adaptation Subscale, $F(1,91)=4.10, p<.05$. The general and special education teachers did not significantly differ from each other on either the Relationship Adaptation Subscale, $F(1,91)=.104, p>.05$, or the Involvement Adaptation Subscale, $F(1,91)=.000, p>.05$. Thus, the second hypothesis was only partially supported.

Table 3:

Factor Analysis of Valuing of Support Scale (One-Factor model)**Factor 1: Valuing of Support**

| <u>Item</u> | <u>Loading</u> |
|------------------------------------|----------------|
| V1 More training | .750 |
| V2 More aides | .742 |
| V5 Positive parent support | .728 |
| V4 Assistance modifying curriculum | .701 |
| V3 More teaching materials | .613 |

Table 4:

General and Special Education Teachers' Means on Each Measure, with Standard Deviations in Parentheses.

| Measure of Difference | General Ed. Teachers | Special Ed. Teachers | Significance |
|---|-------------------------|-------------------------|--------------|
| Willingness to Include Autistic Student | 2.03 (.60) | 2.53 (.51) | ** |
| Efficacy Scale | 4.80 (.68) | 4.85 (.57) | |
| Teaching Success Efficacy Subscale | 4.61 (.84) | 4.72 (.71) | |
| Handling Difficulties Efficacy Subscale | 4.95 (.71) | 4.94 (.58) | |
| Adaptation Scale | 5.13 (.80) | 5.38 (.54) | |
| Class Format Adaptation Subscale | 4.93 (.90) | 5.39 (.63) | ** |
| Relationship Adaptation Subscale | 5.39 (.71) | 5.44 (.56) | |
| Involvement Adaptation Subscale | 5.19 (1.04) | 5.19 (.75) | |
| Valuing of Support Scale | 5.28 (.85) | 5.29 (.56) | |
| Autism Instruction Hours | 2.20 (5.18) | 7.78 (12.81) | ** |
| Autism Work Experience | 1.62 (.54) | 1.95 (.62) | * |
| Students with Autism | 1.64 (.79) | 2.41 (1.00) | *** |
| Aide Hours | 2.07 (1.48) | 5.17 (1.92) | *** |
| Education Level | 1.24 (.43) | 1.47 (.51) | * |

* Significant difference at .05 level

** Significant difference at .01 level

*** Significant difference at .001 level

Although, only one significant difference was found between the two teacher types on the variables included in the hypotheses, significant differences were found for aide hours, $F(1,84)=54.56$, $p<.001$, education level, $F(1,91)=3.98$, $p<.05$, autism instruction hours, $F(1,88)=8.40$, $p<.01$, autism work experience, $F(1,91)=5.15$, $p<.05$, students with autism, $F(1,89)=12.11$, $p<.001$, willingness to include autistic students, $F(1,82)=9.85$, $p<.01$, with the special education teachers scoring higher on these measures than the general education teachers. These variables are shown in Table 4, along with their means and standard deviations. The variables included here would seem to be consistent with the specific training and requirements that a special education teacher needs to have, but not necessarily those of a general education teacher.

The third hypothesis was that the number of special education courses that general education teachers had taken would correlate with their Efficacy Scale and the Adaptation Scale scores. There was no significant relationship found between the number of special education courses that a general education teacher had taken and the Efficacy Scale, $r(59) = .220$, $p>.05$. In addition, there was no significant relationship found between the number of special education courses that a general education teacher had taken and the Adaptation Scale, $r(59) = .059$, $p>.05$. Thus the third hypothesis was not supported. However, there was a significant negative correlation found between their number of special education courses taken and their Value of Support Scale score, $r(58) = -.326$, $p<.01$.

The fourth hypothesis was that there would be a positive correlation between the teachers' amount of work experience with autistic children and their willingness to have an autistic child as their student. This correlation was positive and significant, thus supporting the fourth hypothesis, $r(82) = .227, p < .05$. Additional relationships found with autism work experience were with whether or not the teachers had taken any special education courses, $r(91) = .333, p < .001$, the Adaptation Scale, $r(92) = .209, p < .05$, Class Format Adaptation Subscale, $r(92) = .242, p < .05$, and the number of students with autism the teacher previously had, $r(91) = .616, p < .001$. Results also showed that teacher responses relating to the two other autism variables, including autism instruction hours, and the number of students with autism the teacher had previously had additionally found significant positive relationships. Autism instruction hours had significant positive relationships with autism work experience, $r(90) = .332, p < .001$, and students with autism the teacher previously had, $r(88) = .253, p < .05$.

Other variables that related to autism instruction hours were the grade level the general education teacher was currently teaching, $r(72) = -.238, p < .05$, whether or not the general education teacher had previously been a special education teacher, $r(72) = .321, p < .01$, the general education teacher's education level, $r(72) = .245, p < .05$, autism work experience that the general education teacher had, $r(72) = .278, p < .05$, the students with autism that the general education teacher previously had, $r(72) = .483, p < .001$, and the general education teacher's Efficacy scale score, $r(72) = .271, p < .05$. General education teachers who reported more instruction hours related to autism were teaching higher grade levels, had previously been a special education teacher, had a

higher overall score on the Efficacy Scale, had a higher completed education level, reported having more work experience with autism, and had more students with autism. All teachers who had students with autism in the past or currently also showed a relationship with education level, $r(91) = .409, p < .001$ and the Handling Difficulties Efficacy Subscale, $r(90) = .225, p < .05$. A positive relationship was also found with the number of years teaching and students with autism, $r(91) = .248, p < .05$, teachers who had been teaching longer reported having more students with autism. General education teachers who had students with autism showed a negative relationship with whether or not the teacher had an instructional aide, $r(72) = -.245, p < .05$.

The fifth hypothesis was that general education teacher's class size would correlate negatively with their willingness to include a child with autism in their classroom. This correlation was not significant, $r(65) = -.063, p > .05$. Thus the fifth hypothesis was not supported.

The teachers' willingness to include an autistic student was found to be related to several variables. Willingness showed significant positive relationships with the variables: being more willing if there was an aide, Efficacy Scale, Handling Difficulties Efficacy Subscale, Adaptation Scale, Class Format Adaptation Subscale, Involvement Adaptation Subscale, and Value of Support Scale (see Table 5).

Table 5:

Correlation Values for Significant Relationships for All Teachers

| Variables | r |
|--|----------|
| <u>Willingness to Include Autistic Student</u> | |
| <u>correlated with:</u> | |
| Education Level | .243 * |
| Autism Instruction Hours | .291 ** |
| Autism Work Experience | .227 * |
| More Willing if Aide | .299 ** |
| Efficacy Scale | .289 ** |
| Adaptation Scale | .474 *** |
| Value of Support Scale | .236 * |
| Handling Difficulties Efficacy Subscale | .307 ** |
| Class Format Adaptation Subscale | .484 *** |
| Relationship Adaptation Subscale | .349 *** |
| Involvement Adaptation Subscale | .454 *** |
| <u>Efficacy Scale correlated with:</u> | |
| Adaptation Scale | .335 *** |
| Class Format Adaptation Subscale | .320 ** |
| Relationship Adaptation Subscale | .348 *** |
| Involvement Adaptation Subscale | .227 * |
| <u>Adaptation Scale correlated with:</u> | |
| Autism Work Experience | .209 * |
| Valuing of Support Scale | .324 ** |
| Teaching Success Efficacy Subscale | .219 * |
| Handling Difficulties Efficacy Subscale | .374 *** |
| Valuing of Support Factor | .334 *** |
| <u>Valuing of Support Scale correlated with:</u> | |
| Special Education Courses | -.236 * |
| Number of Special Education Courses | -.326 * |
| Class Format Adaptation Subscale | .262 * |
| Relationship Adaptation Subscale | .372 *** |
| Involvement Adaptation Subscale | .284 ** |
| * Significant correlation at .05 level | |
| ** Significant correlation at .01 level | |
| *** Significant correlation at .001 level | |

Table 5 (continued)

Correlation Values for Significant Relationships for All Teachers (continued)

| Variables | r |
|--|----------|
| <u>Teaching Success Efficacy Subscale</u> | |
| <u>correlated with:</u> | |
| Class Format Adaptation Subscale | .228 * |
| <u>Handling Difficulties Efficacy Subscale</u> | |
| <u>correlated with:</u> | |
| Students with Autism | .225 * |
| Class Format Adaptation Subscale | .339 *** |
| Relationship Adaptation Subscale | .422 *** |
| Involvement Adaptation Subscale | .248 * |
| <u>Class Format Adaptation Subscale</u> | |
| <u>correlated with:</u> | |
| Regular Ed. or Special Ed. Teacher | .209 * |
| Aide Hours | .239 * |
| Education Level | .214 * |
| Autism Work Experience | .242 * |
| * Significant correlation at .05 level | |
| ** Significant correlation at .01 level | |
| *** Significant correlation at .001 level | |

Predictors of Teachers' Willingness to Include Children with Autism

To investigate predictors of general education teachers' willingness to include children with autism in their classes, stepwise multiple regression was conducted, with willingness as the predicted variable, and the other variables as possible predictors. Four variables were found to be significant predictors of teachers' willingness to include children with autism, $F(4, 69) = 13.81, p < .001$ (see Table 6). These significant predictors were the Handling Difficulties Efficacy Subscale (Beta = .296, $p < .01$), the Involvement Adaptation Subscale (Beta = .296, $p < .01$), being more willing with an aide (Beta = .296, $p < .01$), and valuing more training on autism (Beta = .270, $p < .01$). Thus, general education teachers were more willing to include children with autism if they felt greater efficacy in handling difficult situations, if they felt greater feasibility in making adaptations to involved disabled students, if they felt more willing with an aide, and if they valued more training on autism. The multiple R, or correlation between willingness and these combined predictors, was .67. The R-squared was .45, indicating for this sample that 45% of the variance in teachers' willingness was related to these predictor variables. When the R-squared was adjusted by taking into account the number of variables and teachers in this sample, the adjusted R-squared was .41, indicating that for the population, 41% of the variance in teachers' willingness was estimated to be related to these predictor variables.

Stepwise multiple regression analysis was also conducted for the special education teachers, to investigate predictors of their willingness to include children with autism. None of the variables were significant predictors of willingness for the special

education teachers, indicating that the special education teachers were equally willing to include children with autism, regardless of how they scored on the other variables in the study.

Additional Relationships

A Pearson correlation matrix was obtained relating all of the numerically scaled variables in the survey for the entire set of teachers (see Table 5 for significant correlations). Significant positive relationships were found between the Efficacy Scale and the Adaptation Scale, $r(89) = .335, p < .01$. Those teachers who scored higher on the Efficacy Scale also rated the items higher on the Adaptation Scale. The teachers' scores on the Efficacy Scale also correlated significantly with each of the adaptation subscales: Class Format Adaptation Subscale, $r(89) = .320, p < .01$, Relationship Adaptation Subscale, $r(90) = .348, p < .01$, and Involvement Adaptation Subscale, $r(89) = .227, p < .05$. The teachers who scored higher on the Efficacy Scale also rated the items higher that were included each of the adaptation subscales.

The Teaching Success Efficacy Subscale had significant positive correlations with the Adaptation Scale, $r(89) = .219, p < .05$ and the Class Format Adaptation Subscale, $r(89) = .228, p < .05$. The Handling Difficulties Efficacy Subscale also correlated with the Adaptation Scale, $r(89) = .374, p < .01$, the Class Format Adaptation Subscale, $r(89) = .339, p < .01$, the Relationship Adaptation Subscale, $r(89) = .422, p < .01$, and the Involvement Adaptation Subscale, $r(89) = .248, p < .05$.

The Adaptation Scale scores also showed a significant positive relationship with the Valuing of Support Scale, $r(89) = .324, p < .01$. Teachers who rated the items on the Adaptation Scale highly, also gave high ratings for the items on the Valuing of Support Scale.

Table 6:

Results of Stepwise Multiple Regression Analysis for Predicting General Education Teachers' Willingness to Include Children with Autism

| Significant Predictors of Willingness | Correlation r | Regression Beta |
|---|------------------|--------------------|
| Handling Difficulties Efficacy Subscale | .389 *** | .296 ** |
| Involvement Adaptation Subscale | .374 *** | .296 ** |
| More Willing if Aide | .316 ** | .280 ** |
| Valuing of More Training on Autism | .407 *** | .270 ** |

** Significant relationship at .01 level

*** Significant relationship at .001 level

DISCUSSION

The present study found many significant relationships between the variables included in the research. Relationships pertaining to the teachers' scores on the Efficacy and the Adaptation Scales were found. Several variables related to the teacher's willingness to include a child with autism and with the autism related variables themselves. The results of this study contribute to the literature on inclusion and may be useful to professionals in the field.

Results revealed that four of the hypotheses of this study were not supported, while one of the hypotheses was supported. The first hypothesis, that special education teachers are expected to have a higher mean personal teaching efficacy than general education teachers, was not found to be supported. This finding was inconsistent with the results of Minke, et al. (1996). The previous research showed that the general education teachers in regular classroom settings had significantly lower personal teaching efficacy than did regular and special education teachers participating in inclusion programs. An explanation for this may be that the teachers who were participating in the inclusion program were supported throughout the day by having another teacher in the classroom. This may have contributed to their personal teaching efficacy scores and therefore, a more considerable difference between the teacher groups resulted. The special education teachers in the present study were not participating in such a program.

It was thought by the researcher that special education teachers would have a higher mean personal teaching efficacy compared to the general education teachers because it was thought that the special education teachers would have acquired more skills for teaching in difficult situations. It was also thought that these teachers would have more flexibility in how they might handle a variety of behaviors. In fact, it could be that special education teachers may have less flexibility in how they approach problems in the classroom and have more constraints because of the students' IEPs. This could contribute to why they did not have a higher mean personal teaching efficacy.

Minke et al. (1996) emphasized the importance of personal teaching efficacy and stated that high-efficacy teachers may have different strategies when facing challenging situations. In the present study, relationships were found between the Efficacy Scale scores and the Adaptation Scale scores, suggesting that those teachers who had a higher efficacy found it more feasible to make adaptations in teaching and in the classroom. More specifically the Teaching Success Efficacy Subscale and the Handling Difficulties Efficacy Subscale was found to be related to the Class Format Adaptation Subscale. Teachers who scored higher on both of the efficacy subscales also rated the items on the Class Format Adaptation Subscale higher.

Additionally the Handling Difficulties Efficacy Subscale also correlated with the Relationship Adaptation Subscale and the Involvement Adaptation Subscale. Teachers who had a higher efficacy when handling difficult situations also reported that communicating with parents and professionals, establishing a relationship with a

student with a disability, providing reinforcement and encouragement, and developing daily, unit and yearly plans were more feasible. These same teachers also reported that involving a student with a disability in whole class activities and monitoring that student's comprehension of directions and tasks was more feasible. The present study suggests that personal teaching efficacy is important in the teachers' perceptions of making adaptations in the classroom and with students.

The second hypothesis that special education teachers' views of making adaptations would have significantly higher mean scores than those of general education teachers was not supported. This finding was inconsistent with the results reported by Minke et al. (1996), who reported that general education teachers in regular settings thought that adaptations were less feasible than did the special education and general education teachers teaching in inclusion classrooms. However, in the present study a significant difference was found between the special education teachers and the general education teachers on the Class Format Adaptation Subscale with special education teachers scoring higher. This could indicate that special education teachers consider it more feasible to make adaptations regarding the physical arrangements of the classroom; adapting pacing of instruction, materials, plans, and classroom management strategies; providing extra time for students with a disability; and establishing routines that are appropriate for a student with a disability. One possible explanation for this could be that special education teachers were trained to be able to

make adaptations for students of varying ability. Another explanation could be that special education teachers are with students with disabilities on a daily basis and may find it easier to make adaptations.

The third hypothesis that the number of special education courses that a general education teacher had taken would positively correlate with their personal efficacy and willingness to make adaptations was not supported. Results indicate the number of special education courses that a general education teacher had taken did not correlate significantly with their Efficacy Scale score or their Adaptation Scale score. The results showed that the majority of general education teachers had only taken one course in special education, and this restricted range may have limited the size of these correlations. A sample of general education teachers that have taken more classes may change this result.

The number of special education courses taken and the Value of Support Scale did however show a significant negative correlation. This finding might suggest that teachers who had taken a lower number of special education courses rated the items in the Value of Support Scale higher. Teachers reported that more training, more aides, positive parent support, assistance modifying curriculum, and more teaching materials were valuable to them, especially for the general education teachers that had taken fewer special education courses. This may indicate that general education teachers need support for including children with disabilities in their classrooms.

According to Myles and Simpson (1998), having proper support for the teachers is a key feature in the Autism Inclusion Collaboration Model. The types of support that are included in this model are the availability of proper support staff (such as special education teachers, and other professionals), availability of classroom aides for the children, ongoing in-service training, and a home-school collaboration. In addition to the number of special education courses taken, the Valuing of Support Scale was also found to be correlated with the Adaptation Scale, as well as the Class Format Adaptation Subscale, Relationship Adaptation Subscale, the Involvement Adaptation Subscale, and the teachers' willingness to include a child with autism. When the items that related to each of the adaptation subscales were rated higher, the items on the Value of Support Scale were also rated higher. The items on the Value of Support Scale were also rated higher when teachers reported that they were somewhat willing or very willing to include a child with autism in their classroom. The present study revealed that teachers would value the different types of support that they might receive if a child was included in their classroom, as well as foster their willingness to include a child with autism. Teachers who felt that making adaptations in the classroom and with the students were feasible also would value the support. The implications of this may be that teachers who are willing to make adaptations for a child with a disability should be given the support that they feel they need to provide an appropriate and success-promoting environment for the child.

The present study's results supported the fourth hypothesis under investigation. A positive correlation was found between the teachers' amount of work experience with autism and their willingness to have an autistic child as their student. This finding was true for both the general education and special education teachers combined, but it was not significant for the general education teachers only. Special educators had more experience with children with autism and were more willing to have an autistic child as their student. These results seem to be consistent with the profession of being a special education teacher. The results of this hypothesis indicate that teachers who have had experience working with children with autism were more willing to have an autistic child as their student. Teachers who have worked with children with autism may understand the disorder better and have better strategies for working with autistic children.

Results also found that the Adaptation Scale, Class Format Adaptation Subscale, whether or not the teachers had taken any special education courses, and students with autism were significantly related to autism work experience. These relationships could also be related to the responses of the special education teachers. Results found that special education teachers differed significantly from the general education teachers on the Class Format Adaptation Subscale, number of students with autism, and autism work experience variables, which would indicate why more autism work experience would be related to each of the variables.

For other variables relating to autism, the teachers' autism experience significantly correlated with their amount of instruction on autism and with their number of autistic students. Teachers who reported more autism instruction hours had a higher education level, reported having more work experience with autism, and had more students with autism. In partial correlations, when controlling for general or special education teacher type, these variables were still significantly correlated.

The more autism instruction hours that a teacher had was also related to the teacher having a higher score on the Efficacy Scale and their willingness to include a child with autism. It may be that teachers who have been educated on autism feel better prepared when teaching and when handling difficult or challenging situations. Additionally, those teachers who have been educated on autism reported being more willing to include a child with autism. These findings are important because previous research (Burack, Root, & Zigler, 1997; Mesibov & Shea, 1996) reported that an understanding of autism is needed in order to teach children with autism successfully. The present research also indicates that an understanding of autism may contribute to the teacher's feeling of efficacy, as well as to their willingness to include a child with autism. It would be beneficial for teachers to become educated on the area of autism if children with autism are going to be included in their schools.

Teachers who reported having more students with autism in the past or currently also scored higher on the Handling Difficulties Efficacy Subscale. This relationship suggests that teachers who had more students with autism felt better prepared for challenging situations. The present study's results cannot specify the causal explanation for this, only that a relationship existed between these variables.

The fifth hypothesis was not supported by the findings of the study. The general education teachers' class size did not have a significant negative correlation with their willingness to include a child with autism into their general education classroom. This finding suggests that the number of students that a general education teacher has, does not impact how willing the teacher is to including a child with autism into their classroom. The number of students that the teacher currently had negatively correlated with whether or not a teacher had an instructional aide, and the amount of time the aide was in the classroom. The data suggested that teachers who were teaching higher grade levels had more students and no aides or limited aide time.

Willingness was also positively correlated with the Efficacy Scale and Handling Difficulties Efficacy Subscale. Teachers who had higher Efficacy Scale scores, more specifically higher scores on the Handling Difficulties Efficacy Subscale, were more willing to include a child with autism. This finding is similar to the results of a previous study. Stephens and Braun (1980) reported that teachers' confidence in their ability to teach exceptional children was a variable that may predict their willingness to include a child with special needs. The researchers suggested that future research look into the relationship between teachers' confidence and willingness. The present study suggests

that there is a relationship between these variables. Teachers who felt more comfortable handling difficult situations reported that they were more willing to include children with autism. An explanation may be that teachers who feel more confident in their abilities to handle difficult situations, feel that they could manage a classroom that included a child with autism and the challenging situations that might be involved.

Relationships with willingness were also found with the Adaptation Scale, Class Format Adaptation Subscale, Relationship Adaptation Subscale, and Involvement Adaptation Subscale. The teachers in the present study who rated the items on the Adaptation Scale as more feasible also reported being more willing to include a child with autism. This finding suggests that teachers need to view making adaptations in the classroom and in their teaching as feasible in order for them to be willing to have a child with autism as their student. This is an important finding because in order for inclusion models to be successful, teachers need to be willing to make environmental and curricular modifications (Myles & Simpson, 1998). The results of the present study may be helpful when placing children with autism in classrooms. It would be wise to place these children with teachers who are willing and view making adaptations as feasible.

Other teacher variables related to willingness were aide hours and education level. Teachers who reported having an aide for a longer duration of the day also reported being more willing to include a child with autism in their classroom. One explanation for this could be that the teachers who had aides for longer amounts of time were special education teachers and were already more willing to include. The higher

the education level of the teacher the more willing the teacher was as well. This could also be explained by the reports that special education teachers tended to have completed a higher level of education.

Additional Comments from Teachers

Some teachers, less than half of the sample, included written comments beyond completion of the questionnaire. While a few teachers shared previous experiences with children with autism or with inclusion, the majority shared ideas and other factors that contributed to their feelings about inclusion. The other factors that were most commonly mentioned were time, concern for the students in the classroom without disabilities, state standards for education, the pressure and stress that they are under to meet them, and the need for proper aide support.

Time was one of the most commonly shared concerns. Teachers expressed that they already had limited time for planning and had concerns that they would not be able to complete everything that they needed to do. Related to the issue of time was a concern for the students in the class who did not have special needs. Teachers voiced their opinions that a child who is included in a general education classroom should not take time away from the rest of the class, or supercede the needs of the other children in the class, and that they should not receive more of the teacher's time than the other students. Some teachers felt that they already had students with high needs that required careful attention.

Another frequently mentioned factor was the California state standards for education that the teachers are accountable for. The state standards are measured using standardized tests that are given to all the children in the schools throughout the state. Teachers mentioned that there is pressure to meet these standards and for students to perform well on the tests. Students with special needs may not be able to meet the expectations of the classroom and of these state tests.

Teachers felt that in order for inclusion to work, additional aides were needed for support, not only for the child who is being included but also to help meet the needs of all the children in the classroom. It was also mentioned that it would be helpful if an aide who is assigned to a child with autism, be experienced and educated in the area of autism.

These additional factors that were mentioned by the teachers were not specifically addressed in the present study; however, the researcher believes that these factors should be carefully considered when choosing placements for children with autism. These factors should also be further researched in regards to inclusion of children with special needs. Understanding the needs of the teachers working in classrooms on a daily basis is vital to the success of each classroom, especially if inclusion is being considered.

Discussion of Limitations

The main limitation of this study was the use of self-report measures. The accuracy of the teachers' responses will not necessarily be totally accurate. Any time self-report surveys are used there are issues regarding the participants' answering based on social desirability; time issues such as rushing to finish or not thinking all the questions through completely; and reliance on incomplete memory and recall.

Another limitation involved the sample of teachers and low return rate of the surveys. Because the teachers were all working in the same geographic region, this may have caused some homogeneity in the sample. Also, because the area does not have a large general population, schools tend to be smaller in size and staff. Another significant limitation may be in the small number of special education teachers in the sample. There were fewer special education teachers in elementary school settings as compared to general education teachers. There was also a small proportion of surveys returned, 34% of the total surveys sent out. It is unknown what the other teachers who did not respond might have said.

Lastly, as far as the group differences in my sample, it may be that there are pre-existing group differences between the teacher types. This may have caused the results to be due to other extraneous variables that were not accounted for in the research. Some of these differences could be that different types of people become special education teachers as opposed to general education teachers; personal experiences may be attributed to the reasoning behind becoming a special education teacher, such as

having family members or other loved ones with disabilities; and the educational aspects of becoming a special education teacher, such as more coursework, longer expected graduation time, or greater availability of work.

Implications

One of the benefits of inclusion for children with autism is that it provides opportunity for socialization with peers. This includes modeling of appropriate language skills, appropriate behavior, and appropriate play skills. Since these are areas of concern for children with autism, the proper modeling and experience may help them to be more successful with socializing with others. Some parents of children with autism would like this opportunity for their child/children. Therefore, it is important that everyone involved with inclusion be properly prepared and appropriate choices are made.

The present study has included many variables that are important in the area of inclusion of children with autism in general education classrooms. This study also revealed four predictors of general education teachers' willingness to include children with autism into their classrooms. The results may provide helpful resources for implementing inclusion programs and choosing an appropriate classroom for the child.

Testing some of the variables such as teacher efficacy and views of feasibility of making adaptations for only general education teachers, with a larger sample across the United States may produce helpful results. In the present study these variables were important aspects that related to teacher willingness to include and make adaptations,

two important keys to a successful inclusion program. These variables also influenced each other in some ways and if investigated further could be beneficial for future application.

Another important area of focus for future research and application is in the specific realm of autism. More than half of the teachers had not been educated about autism. If the inclusion of children with autism is going to be accomplished in the school system, it is important that teachers be educated about the disorder and in approaches to teaching children with autism. Schools may want to hold autism in-service sessions and trainings to keep the teachers informed. The knowledge and education may help relieve the pressure and stress that teachers may feel about including children with autism.

Finally, it is vital that teachers be supported, especially if they are going to be participating in an inclusion program. The present research discovered that the teachers find various types of support to be valuable to them and their environments. Teachers would value more training relating to inclusion of a student with autism and support from a special education teacher. These supports could enhance the teaching environment for everyone involved. Also, while these supports and the support of the parent are also important, the use of properly trained aides would be very valuable to the teacher as well as the students.

Additional research into teachers' views about inclusion is needed. Future research should investigate various regions with varying populations of teachers. A statewide or national research study may be able to generalize the findings and then be

able to apply them to more schools and teachers. Other research ideas could be to study the application of an inclusion program to find out what might be successful and what would help to serve a diversity of children.

The present study also identified four significant predictors of general education teachers' willingness to include a child with autism in their classroom. The first predictor variable was the Handling Difficulties Efficacy Subscale. Teachers who felt as though they had greater efficacy in handling difficult situations in the classroom were more willing to include a child with autism in their classroom. It may be that some teachers anticipate having to handle more difficult situations if they were to have a student with autism in their classroom, and those teachers who feel more prepared to handle more challenging situations are therefore more willing to include a child with autism.

The second predictor variable was the Involvement Adaptation Subscale. Those teachers who reported that it was more feasible to make adaptations that dealt with involving the child with a disability in the classroom were also more willing to include a child with autism in their classrooms. This finding is important because if teachers did not feel as though involving a child with a disability in classroom activities was not feasible, inclusion could not be an option.

Two types of support variables were found to be predictors as well. This study revealed that teachers were more willing to include a child with autism if the child was assigned a classroom aide and if they were given more training on autism. It is important that teachers involved in inclusion programs have ample amount of support.

As mentioned earlier it is beneficial for the teacher to understand autism and to have strategies for teaching a student with autism. This study revealed that they would value this information. The predictor variables found in this study indicate that teachers value the support and it would encourage them to be more willing to include a child with autism into their classroom.

If children with autism are going to be included in general education settings the variables mentioned in this study should be taken into consideration when placements are being decided. Teachers who are willing to include should be given proper support and training. For others who may not be as willing, schools could encourage teachers in ways that may increase their teaching efficacy and their perceptions on the feasibility of making adaptations in the classroom. It may be, that when schools are beginning to include children with autism they may want to choose teachers that have confidence in their teaching efficacy and who are already willing to do so. However, for the long term, it may be beneficial for schools to begin providing trainings and inservices to bring about awareness and encouragement for inclusion programs.

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APPENDIX A

Diagnostic Criteria for 299.00 Autistic Disorder (DSM-IV, 1994)

- A. A total of six (or more) items from (1), (2), and (3), with at least two from (1), and one each from (2) and (3):
- (1) Quantitative impairment in social interaction, as manifested by at least two of the following:
 - (a) marked impairment in the use of the multiple nonverbal behaviors such as eye-to-eye gaze, facial expression, body postures, and gestures to regulate social interaction
 - (b) failure to develop peer relationships appropriate to developmental level
 - (2) Qualitative impairments in communication as manifested by at least one of the following:
 - (a) delay in, or lack of, the development of spoken language (not accompanied by an attempt to compensate through alternative modes of communication such as a gesture or mime)
 - (b) in individuals with adequate speech, marked impairment in the ability to initiate or sustain a conversation with others
 - (c) stereotyped and repetitive use of language or idiosyncratic language
 - (d) lack of varied, spontaneous make-believe play or social imitative play appropriate to developmental level
 - (3) Restricted repetitive and stereotyped patterns of behavior, interests, and activities, as manifested by at least one of the following:
 - (a) encompassing preoccupation with one or more stereotyped and restricted patterns of interest that is abnormal either in intensity or focus
 - (b) apparently inflexible adherence to specific, nonfunctional routines or rituals
 - (c) stereotyped and repetitive motor mannerisms (e.g., hand or finger flapping or twisting, or complex whole-body movements)
 - (d) persistent preoccupation with parts of objects
- B. Delays or abnormal functioning in at least one of the following areas with onset prior to age 3 years: (1) social interaction, (2) language as used in social communication, or (3) symbolic or imaginative play.
- C. The disturbance is not better accounted for by Rett syndrome or Childhood Disintegrative Disorder.

APPENDIX B

Letter to Principals

January 30, 2001

Dear Principal,

My name is Jill Furuoka and I am a graduate student in Psychology at Humboldt State University. One of the requirements for receiving my Masters degree is that I do a thesis. The topic that I have chosen for my thesis involves teachers' views about including children with autism in general education settings. I am interested in finding out what teachers' recommendation would be for inclusion to be successful, for the students and the teachers, as well as other important input that they may be able to provide. The teachers' input is considered valuable and is highly respected. I have been working with children with autism for nearly four years and I am currently an instructional aide in a special day class for children with autism that is run by the Humboldt County Office of Education. Therefore, I have a strong interest in helping these children and their families to be successful in a variety of ways.

Given the changes in the federal legislature more schools are being faced with parental requests that their child be fully included in classrooms. I would like to find out from teachers their opinions about the possibility of having a student with autism in their classroom and what measures could be taken to insure a successful learning experience. I plan on distributing the surveys to the teachers through the mail with a stamped return envelope. The teachers' participation will depend on whether or not they choose to return the survey. The information gathered will remain anonymous and confidential. My completed study will be available to read for any interested parties. It will be kept in the Special Services Department of the Humboldt County Office of Education. The credibility of the findings depends on gaining accurate information with your cooperation. I plan on distributing the surveys on February 5, 2001. If you have any questions or concerns please contact me by phone: 826-9225, or email: jhf3@humboldt.edu. You may also leave a message with my advisor, Mary Gruber, Ph.D. at 826-3748, or mbg2@humboldt.edu.

Thank you,

Jill Furuoka
Graduate Student in Psychology

APPENDIX C

Cover Letter to Teachers

February 12, 2001

Dear Teachers,

I am a graduate student at Humboldt State University, working on my M.A. in Psychology. Part of the requirement to receive my Masters degree is that I do a thesis. I have chosen to do my thesis on including children with autism in general education settings. I have been working with autistic children and their families for almost four years. Therefore, I have a strong interest in helping these children and their families to be successful in a variety of ways.

I am also aware that some of these children have been attending our public schools in regular classrooms, and that this is an important goal for some of these families. Since this brings about a new experience for everyone involved (the children, parents, teachers, administrators, and other professionals), I hope to gain information that could help make it successful and enjoyable for all involved. A very important part of including children into general education classrooms are the teachers. I would like to find out what teachers think about the possibility of this happening, and what things would make classroom life easier if a child with autism were one of their students.

Attached is a questionnaire, which should take approximately 15-20 minutes to fill out. The information will be kept completely anonymous and confidential. By filling out the questionnaire, you are aware that the information will be used for my thesis and are giving you permission for that to happen. You do not have to complete it if you feel in anyway uncomfortable. The questionnaire will NOT be seen directly by any other individuals besides my advisor, my research assistant, and myself.

Feel free to contact my advisor or myself if you have any questions or comments about the questionnaire. You may also add written comments on the back of the questionnaire. My phone number is 826-9225, and my email address is jhf3@humboldt.edu. My advisor is Mary Gruber, Ph.D., Professor of Psychology, and is available at 826-3748 or mbg2@humboldt.edu.

Please return the completed survey in the stamped envelope provided. I would appreciate it if the surveys were returned as soon as possible or by April 1, 2001. The credibility of my findings depends on gaining accurate information with your cooperation. For your participation the enclosed stickers are for you and your students to enjoy. Thank you in advance for your time and effort.

Sincerely,

Jill Furuoka
Graduate Student in Psychology

APPENDIX D

Survey for Teachers

Directions: The following questions pertain to you and your background. Please fill them out to the best of your knowledge. Do NOT put your name anywhere on this form. Your answers will remain anonymous and confidential. Thank you again for your time and support of this study. Please circle or fill in the appropriate answers.

1. Gender: Male Female
2. Are you a regular education teacher or a special education teacher? _____
3. Number of years teaching: _____
4. Grade level currently teaching: _____
5. What is your current number of students? _____
6. Do you have any instructional aides assigned to your classroom?
 No Yes If yes, how many hours a day? _____
7. What was your undergraduate major and/or minor in college? _____
8. What is the highest level of education that you have completed?
 B.A. or B.S. M.A. or M.S. Ph.D. or Ed.D
9. If you are a regular education teacher, have you been a special education teacher before?
 No Yes, for _____ year(s)
10. If you are a special education teacher, have you been a regular education teacher before?
 No Yes, for _____ year(s)
11. Have you taken any courses in special education?
 No Yes If yes, how many? _____
12. Have you had any instruction on the topic of autism?
 No Yes If yes, about how many hours? _____
13. How much experience have you had working with children with autism?
 None Some A great deal
14. How many children with autism have you had as students in your class, in your career as a teacher?
 None 1 or 2 3 or 4 5 or more
15. How willing would you be to fully include a student with autism in your classroom?
 Not willing Somewhat willing Very willing
16. Would you be more willing if there was a person or aide assigned to the child?
 No Yes

For the following statements (items 17-25), please indicate the degree to which you agree or disagree with each statement by circling one of the corresponding numbers.

| | Strongly Disagree | Moderately Disagree | Slightly Disagree | Slightly Agree | Moderately Agree | Strongly Agree |
|---|----------------------|------------------------|----------------------|-------------------|---------------------|-------------------|
| 17. When a student does better than usual, many times it is because I exerted a little extra effort. | 1 | 2 | 3 | 4 | 5 | 6 |
| 18. When a student is having difficulty with an assignment, I am usually able to adjust it to that student's level. | 1 | 2 | 3 | 4 | 5 | 6 |
| 19. When a student gets a better grade than he usually gets, it is usually because I found better ways of teaching that student. | 1 | 2 | 3 | 4 | 5 | 6 |
| 20. When I really try, I can get through to most difficult students. | 1 | 2 | 3 | 4 | 5 | 6 |
| 21. When the grades of my students improve, it is because I found more effective teaching approaches. | 1 | 2 | 3 | 4 | 5 | 6 |
| 22. If a student masters a new math concept quickly, this might be because I knew the necessary steps in teaching that concept. | 1 | 2 | 3 | 4 | 5 | 6 |
| 23. If a student did not remember information that I gave in a previous lesson, I would know how to increase that student's retention in the next lesson. | 1 | 2 | 3 | 4 | 5 | 6 |
| 24. If a student in my class becomes disruptive and noisy, I feel assured that I know some techniques to redirect that child quickly. | 1 | 2 | 3 | 4 | 5 | 6 |
| 25. If one of my students couldn't do a class assignment, I would be able to accurately assess whether the assignment was at the correct level of difficulty. | 1 | 2 | 3 | 4 | 5 | 6 |

For the following statements (items 26-45), please indicate how practical it would be for you to actually implement the adaptation in your classroom by circling the number that corresponds with the degree of feasibility.

| | Highly Unfeasible | Moderately Unfeasible | Slightly Unfeasible | Slightly Feasible | Moderately Feasible | Highly Feasible |
|--|-------------------|-----------------------|---------------------|-------------------|---------------------|-----------------|
| 26. Establish routines appropriate for a student with a disability (e.g. establish setting so children know what is expected; be consistent). | 1 | 2 | 3 | 4 | 5 | 6 |
| 27. Adapt classroom management strategies that are effective with a student with disabilities (e.g. token systems). | 1 | 2 | 3 | 4 | 5 | 6 |
| 28. Provide reinforcement and encouragement (e.g. encourage effort; provide support if students get discouraged). | 1 | 2 | 3 | 4 | 5 | 6 |
| 29. Establish a relationship with a student who has a disability(e.g. get to know individual's interests and strengths). | 1 | 2 | 3 | 4 | 5 | 6 |
| 30. Help a student with a disability find appropriate ways to deal with feelings (e.g. brief times away from class). | 1 | 2 | 3 | 4 | 5 | 6 |
| 31. Communicate with other professionals (e.g. meetings and/or written communications with special education teacher, speech therapist, etc.). | 1 | 2 | 3 | 4 | 5 | 6 |
| 32. Communicate with the parents of a student with a disability (e.g. write notes back and forth; talk informally with parents). | 1 | 2 | 3 | 4 | 5 | 6 |
| 33. Make adaptations for a student with a disability when developing yearly/unit plans (e.g. establish realistic long-term objectives). | 1 | 2 | 3 | 4 | 5 | 6 |

| | Highly Unfeasible | Moderately Unfeasible | Slightly Unfeasible | Slightly Feasible | Moderately Feasible | Highly Feasible |
|---|-------------------|-----------------------|---------------------|-------------------|---------------------|-----------------|
| 34. Make adaptations for a student with a disability when developing daily plans (e.g. view plans with an eye for possible problems for a student with a disability). | 1 | 2 | 3 | 4 | 5 | 6 |
| 35. Plan assignments and activities that allow a student with a disability to be successful (e.g. structure tasks to reduce frustration). | 1 | 2 | 3 | 4 | 5 | 6 |
| 36. Adjust physical arrangement of room for a student with a disability (e.g. modify seating arrangements). | 1 | 2 | 3 | 4 | 5 | 6 |
| 37. Adapt classroom materials or use other materials (e.g. construct study guides, supplemental workbooks). | 1 | 2 | 3 | 4 | 5 | 6 |
| 38. Use computers to enhance learning with a student with a disability (e.g. as a tool for writing, or practicing skills). | 1 | 2 | 3 | 4 | 5 | 6 |
| 39. Monitor the comprehension of a student with a disability of directions and tasks (e.g. ask children to repeat or demonstrate the directions; check in with them to see how they are doing). | 1 | 2 | 3 | 4 | 5 | 6 |
| 40. Pair the a student with a disability with a classmate (e.g. to provide assistance with assignments; provide models for behavior and academics; for social support). | 1 | 2 | 3 | 4 | 5 | 6 |
| 41. Involve a student with a disability in whole class activities. | 1 | 2 | 3 | 4 | 5 | 6 |

| | Highly Unfeasible | Moderately Unfeasible | Slightly Unfeasible | Slightly Feasible | Moderately Feasible | Highly Feasible |
|---|-------------------|-----------------------|---------------------|-------------------|---------------------|-----------------|
| 42. Provide extra time for a student with a disability (e.g. for skill reinforcement and extra practice). | 1 | 2 | 3 | 4 | 5 | 6 |
| 43. Adapt pacing of instruction (e.g. break down materials into smaller segments). | 1 | 2 | 3 | 4 | 5 | 6 |
| 44. Keep records to monitor students' progress (e.g. keep a folder of papers and progress charts). | 1 | 2 | 3 | 4 | 5 | 6 |
| 45. Adapt evaluations or scoring/grading criteria for a student with a disability (e.g. allow more time for tests; use oral testing). | 1 | 2 | 3 | 4 | 5 | 6 |

Please rate the following items in regard to how valuable they would be in facilitating your willingness to include a child with autism in your classroom.

On a scale from 1-6, with 1=not at all valuable and 6= extremely valuable

| | not at all | | | | | extremely valuable |
|---|------------|---|---|---|---|--------------------|
| 1. More training_____ | 1 | 2 | 3 | 4 | 5 | 6 |
| 2. More aides_____ | 1 | 2 | 3 | 4 | 5 | 6 |
| 3. More teaching materials_____ | 1 | 2 | 3 | 4 | 5 | 6 |
| 4. Assistance modifying curriculum_____ | 1 | 2 | 3 | 4 | 5 | 6 |
| 5. Positive parent support_____ | 1 | 2 | 3 | 4 | 5 | 6 |