Do Current Teaching Practices on Multicultural Students with Autism Demonstrate Culturally Responsive Teaching?

Keith McGriff

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Jason Berman

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David Rostetter

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Do Current Teaching Practices on Multicultural Students with Autism Demonstrate Culturally Responsive Teaching?

By

Keith McGriff

Submitted in partial fulfillment of the requirements for the degree Ed.D in Executive Leadership

Supervised by

Dr. Jason Berman

Committee Member

Dr. David Rostetter

Ralph C. Wilson, Jr. School of Education
St. John Fisher College

November 2008
We recommend that the dissertation by

Keith McGriff

Entitled: Do Current Teaching Practices on Multicultural Students with Autism Demonstrate Culturally Responsive Teaching?

Be accepted in partial fulfillment of the requirements for the Education Doctorate degree.

Jason Berman, Ed.D., Chair

David Rostetter, Ed.D., Committee Member

9-10-2008

Date
Dedication

This dissertation is dedicated to the memory of my father and my brother. Their spirit and the way they lived their lives gave me inspiration to complete this educational journey. Although they are not here with me today, I truly believe that they are my guardian angels and I feel their presence. May they continue to rest in peace.
Acknowledgements

Completing a dissertation process simultaneously creates a collection of debts of gratitude owed to go to many people who have helped along the way. This dissertation would not have been possible without their help, patience and cooperation.

I am indebted and most obviously to my committee members. I express many heartfelt thanks for your leadership, your guidance, and most importantly your belief in me. I would like to give a special thanks to Dr. Sam Walton who served as my advisor and mentor, his vision and leadership has inspired me in ways that I'd never thought were possible. To the Centurions, thank you for all your support and love. We shared this journey together and now it's time for us to be transformational leaders.

Special thanks to my mother who is always believed in me and supported me. I love you. To my wife Tina, you are the glue that holds our family together and I couldn't have done this without you. To my son Alex, you are my pride and joy. To my son TJ, you are the inspiration behind this dissertation all of this is for you.

Last but not least, I like to think my Lord and Savior Jesus Christ for blessing me and putting the right people in my life to complete this dissertation journey.
Abstract

Autism is a disorder present from birth or very early in childhood that affects social interaction, communication of ideas and feelings, imagination, and relationships with others (National Research Council, 2001). Most of the research has categorized students with autism according to disability and failed to look at the importance of culture. Such limitations may reflect a lack of awareness of cultural issues and the ways that these issues affect students with autism and their families. Also, such missing information may compromise the quality of the fields of professionals who work with multicultural students (Obiakor, Wilder, and Dyches, 2004). Professionals who work with multicultural students with autism and their families should be concerned about the relative paucity of research specific to the challenges they face. Published research often drives what services should be available to individuals with autism (Dyches, Wilder, Sudweeks, Obiakor, and Algozzine, 2004). This researcher examined the impact of culture on current classroom teaching practices which include multicultural students with autism. Specifically, do classrooms with multicultural students with autism exhibit culturally responsive teaching and do special education teachers exhibit skills and knowledge that demonstrate culturally responsive teaching? The results of this study revealed the absence of cultural responsive teaching in the classrooms. In addition, the special education teachers lack the knowledge and skills to demonstrate culturally responsive teaching. Implications for improving practice are discussed.
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Chapter 1: Introduction

Autism is a disorder present from birth or very early in childhood that affects social interaction, communication of ideas and feelings, imagination, and relationships with others (National Research Council, 2001). Most of the research on autism focuses on the disability and fails to look at the importance of the cultural context. Such limitations may reflect a lack of awareness of cultural issues and the ways that these affect students with autism and their families. Missing information may compromise the capacity of professionals who work with multicultural students with autism (Obiakor, Wilder, and Dyches, 2004). Professionals who work with multicultural students with autism and their families should be concerned about the relative paucity of research specific to culture and the challenges they face. Research on autism within a cross-cultural context and in developing countries has received a very limited attention both from the fields of mental health and anthropology (Daley, 2002). The existing body of knowledge on autism was generated primarily in the United States and Europe; therefore, it is uncertain whether its behavioral manifestations are consistent across different ethnocultural groups.

Given the wide range of countries in which autism has been reported, one would expect to find a very rich and extensive international research literature base; instead, surprisingly little is known about autism within a cultural context (Daley, 2002). Therefore, it may be questionable to apply definitions and diagnostic criteria developed
in the West to individuals in non-Western cultures. This suggests the need for cross-cultural studies in order to test the generality of the current concept of autism.

**Problem Statement**

Autism is a childhood disorder that occurs at a rate of 1 out of 150 children (ASA, 2007). Wilder, Dyches, Obiakor, and Algozzine (2004) stated that future studies should examine multicultural perspectives and the importance of culture when teaching children with autism. These multicultural students with autism have multi-layered problems. They are culturally or racially different. They may be linguistically different or they may not use expressive language in social interaction. They have behavior challenges that are repetitive in nature. These include, but are not limited to, hand flapping, echoing sounds, repetitive speech, and body rocking. These challenges make it imperative for general and special education practitioners to look for ways to educate multicultural students with autism.

Martin, Burke, and Fore (2006) state that solutions other than placing minority children and youth in special education must be explored for solving their academic problems. Part of the solution involves changing the way in which schools do business with minority children. In other words, schools must become more research based, data driven, and outcomes-oriented when seeking effective approaches to meet the needs of minority students. The authors contend that those who advocate for improvements in the education of African American students should adhere to practices that are supported by a solid, empirical research base.

Research on children with developmental disabilities has revealed that differences exist in the way people from various cultures access special services (Bailey, Skinner,
Rodriquez, Gut & Cornea, 1999). African Americans often turn to family, friends, and religious groups before seeking professional help. Latinos have a lower probability of accessing services than African Americans. Wilder, Dyches, Obiakor, and Algozzine (2004), stated that professionals should present culture specific strategies for meeting the educational needs of students with autism. They should relate these strategies to current efforts to prepare teachers and other professionals to assist multicultural students and their families.

African Americans and other minority groups, as well as populations of other countries, are said to be affected in the same proportion despite lack of demographic characteristics of autism in regard to race and ethnicity. Therefore, it may help to consider autism within a cultural frame of reference to determine the essence of effective education and intervention programs for individuals with autism. This is especially true given that minority groups tend to underutilize mental health services (Lopez, 1989). Lopez argued that current mental health programs are not culturally sensitive. Furthermore, because culture is a part of the social environment that shapes the family’s perception and attitude towards disability, individuals deal with the concept of disability based on their personal, cultural, and societal worldview. Therefore, understanding the cultural differences on autism is essential for helping students from different cultural groups. Often, culturally mediated behaviors are misunderstood for pathology; as a result, treatment and intervention efforts may be misdirected.

Regardless of the scarcity of research, there are valid reasons to examine autism within a cultural context. For example, according to “OSER’S 23rd Annual Report to Congress on the Implementation of the IDEA” (U.S Department of Education, 2001),
public school students in the United States who identify themselves as being of African American background continue to be overrepresented across all disability categories. In fact, in the 1999–2000 school year, 34.5% of African American students were classified as having mental retardation, while 30.5% were classified as having developmental delay and 20.5% as having autism. Evidently, these numbers exceeded their national representation among the resident population (14.5%). In fact, African Americans’ representation of all 13 disability categories exceeded their national resident population estimates. There is the distinct possibility that culturally specific behaviors are misdiagnosed as communication disorders or mental retardation.

**Significance of the Study**

Published research often drives what services should be available to individuals with autism (Dyches, Wilder, Sudweeks, Obiakor, and Algozzine, 2004). The present study examined whether classrooms with multicultural students with autism exhibited culturally responsive teaching and whether special education teachers, who work with multicultural students with autism, exhibited skills and knowledge that demonstrated culturally responsive teaching. The study was conducted in an urban school district in Western, New York. Two self-contained classrooms that included multicultural students with autism were examined. The significance of the study will inform educational practices on multicultural students with autism. This study will contribute to enhance the evaluation process of culturally diverse students in special education programs.

**Statement of Purpose**

The majority of autism research focuses only on social and communication needs. According to Wilder, Dyches, Obiakor, and Algozzine (2004), culture should be
considered as an important factor to study when working with individuals with autism. The present study addresses the need to examine autism in a cultural context. Also, it will inform educational practices for multicultural students with autism.

Most of the research has categorized students with autism according to disability and failed to look at the importance of culture (Obiakor, Wilder, and Dyches, 2004). A child who has autism and who is culturally, racially, linguistically, and socio-economically different will likely require a special kind of assistance to effectively address these complex phenomena (Obiakor & Utley, 2001). School personnel need to recognize the label of autism is applied at varying rates to students from various multicultural groups. This is a concern because professionals may interpret some behaviors symptomatically rather than culturally (Obiakor, 1999). Having considered behaviors in the cultural contexts, professionals need to make sure that the student is properly classified with autism. Professionals should be aware these behaviors could cause a multicultural student to be misidentified as having autism or a student with autism to be misidentified as having another disability.

Multiculturalism must be a focus of efforts to educate students with autism. If multiculturalism is not a focus, the possibility of misclassification and the potential for multicultural students with autism to interact appropriately with individuals in the dominant culture increases dramatically. Therefore other professionals should attend to multicultural issues when identifying and teaching students with autism (Dyches, Wilder, & Obikor, 2001).
Research Questions

1. Do classrooms with multicultural students with autism exhibit culturally responsive teaching?

2. Do special education teachers, who work with multicultural students with autism, exhibit skills and knowledge that demonstrate culturally responsive teaching?

Definition of Terms

*Autism.* For the purpose of this study, autism is defined as a disorder present from birth or very early in childhood that affects social interactions, communication of ideas and feelings, imagination, and relationship with others (National Research Council, 2001).

*Culture.* The concept of culture has evolved with social changes and has been defined in many ways in different disciplines. Culture is defined as “the learned, shared, and transmitted values, beliefs, norms, and life ways of a particular group that guide their thinking, decisions and actions in patterned ways” (Leininger, 2001, p.47).

*Ethnicity.* Ethnicity refers to a group that shares common nationality, culture, or language, and the concept often is used interchangeably with race and even with culture. Although, ethnicity is inseparable from culture, ethnicity contains information about beliefs, values, and behaviors beyond just the biological characteristics of a person (Hays, 2001). Ethnicity is a derivative concept that recognizes the in-group values conceptualized by a particular cultural group, such as Italian Americans, or French Canadians” (p. 16). Incidentally, culture is the most inclusive term; still, being a member
of a certain ethnic group does not promise adherence to all of the cultural values and
customs that sustain the ethnic group (Lopez & Guarnaccia, 2000).

Multicultural. Any culture or ethnicity differing from the dominant middle or
upper class European American, English speaking culture.

Cultural Responsive Teaching. Using the cultural knowledge, prior experiences,
of performance styles of diverse students to make learning more appropriate and effective
for them; it teaches to and through the strengths of these students (Gay, 2000).
CHAPTER 2: REVIEW OF LITERATURE

This chapter provides a review of literature concerning autism and autism in a cultural context. This chapter is organized along several themes. First, a brief historical background of autism is presented. Second, the conceptual framework describes the emergence of autism as a label. Third, the definition of autism followed by the diagnostic criteria of autism and the epidemiology of autism are discussed. Fourth, autism’s clinical picture in terms of social impairments, communication and language impairments, and behavioral characteristics is described. Fifth, culture is defined in relation to autism as well as its implication to the treatment and education of individuals with autism. Sixth, global studies are examined in autism from a cultural perspective. Seventh, culture and autism is examined in the United States of America. Eighth, cultural responsive teaching is defined in relation to the special-education multicultural student.

The Early History of Autism

Although autism has been studied heavily recently, it is said to have existed before it was recognized by Kanner (1943) and Asperger (1944). In 1801, Itard wrote *The Wild Boy of Aveyron*, an account of a 12-year-old boy who appears to have presented with some characteristics that are now considered to be signs of autism. The boy, Victor, made no direct communication and was said to be self-absorbed. Victor never spoke and used gestures if he needed something. He pulled people by the arm to get their attention. Further, he wanted items to be in the same place and was said to become very unhappy if
objects were moved. According to Schreibman (1988), Itard’s (1801/1962) description of Victor is in fact similar to the behaviors of children described by Kanner in 1943.

In 1896, Kraepelin provided the first classification of schizophrenia, calling it “dementia praecox.” Practitioners assumed that the same classification could be applied to children (Kanner, 1971; Sanua, 1983). However, the concept of infantile schizophrenia was not utilized until 1930 (Sanua, 1983). Schopler (1994) argued that autism has been described in the mythology of certain cultures. He described the story of two feral girls discovered in India in 1929, who were believed to be ghosts. A reverend put them in a parish and kept a diary of their lives. The diary was later translated into English and studied by Gesell (1941), who assessed the girls’ development and found deficits in language and social behavior. In 1959, Bettelheim used Gesell’s examples and said that the girls described behavior suggested autism (Schopler, 1994).

Other studies have explored the folk concept of conditions similar to autism. For example, Ellenberger (1968) noted children known as Nit-ku-bon or marvelous children in Senegal had Westermeyer (1979) reported that rural Laotians use a category known as Samang Uan to describe children who have developmental difficulties such as language delay, difficulties with social interaction, and lack of flexibility. In another case report, Lane and Pillard (1978) described their journey to find the “wild boy of Burudi,” a child said to have lived in the jungle. After their investigation, it was clear that the boy did not grow up in the jungle, but demonstrated the behavioral characteristics of autism. In 1901, Eugene Bleuler (1919) coined the word autism to describe schizophrenic patients who screened themselves off and were self-absorbed. Kanner (1943) and Asperger (1944) independently borrowed the term autism from adult psychiatry to describe individuals
with schizophrenia who experienced a loss of contact with the outside world (Frith, 1993). However, critics such as Wing (1976) argued that the term *autism* as used by Bleuler had a different meaning than the term as used by Kanner. Bleuler related autism to the immersion of the individual into a fantasy world, whereas Kanner (1943) used the term to describe the lack of creative fantasy that characterizes the behavior of these children (Schreiberman, 1988).

In the 1950s and 1960s, autism was often conceptualized as a form of childhood schizophrenia (Bettelheim, 1967; Volkmar & Lord, 1998). Despite Kanner’s original conviction that autism was different from schizophrenia, researchers such as Crea (1961, 1963a, 1963b) referred to it as a schizophrenic syndrome of childhood and infantile psychosis. However, Kolvin (1971) demonstrated clearly that autism and schizophrenia were different conditions in terms of phenomenology and age of onset. Moreover, Rutter (1978) argued persistently that schizophrenia and autism required separate diagnostic criteria. Finally, autism was classified as a developmental disorder and researchers and practitioners began to appreciate the need to take a developmental approach in evaluation and treatment (Ozonoff & Rogers, 2003).

**Conceptual Framework**

More than 60 years ago, Leo Kanner (1943) coined the word *autism* and, through his eleven published case reports, established autism as a diagnostic entity. According to Kanner (1943), children with autism display a variety of behavioral features such as (a) echolalia, (b) inability to relate to people, (c) delay in speech acquisition, (d) absence of speech or noncommunicative use of language, (e) unusual reaction to sensory stimuli, (f) repetitive and stereotypical behaviors, (g) strong desires for sameness, and (h) excellent
rote memory. He concluded that the condition usually appeared at birth or shortly after. Since psychoanalytical tradition was evident at the time, Kanner described parents of children with autism to be detached, cold, and obsessive, which some took as an implication that autism might be exacerbated by parents’ personality problems (Bettleheim, 1962; Kanner, 1949). However, Kanner (1943) also noted that autism was probably biological in origin; he wrote that children with autism were born with “an innate inability to form the usual, biologically provided affective contacts with people” (p. 42). Kanner’s claim reveals that he considered autism a neurodevelopmental disorder with a biological basis. Despite Kanner’s recognition of the probably biological basis of autism, Bettleheim (1967) took a more extreme position, arguing that autism was the child’s defense against the hostility of parents who had emotionally rejected the child. In fact, he excluded parents from all therapy sessions. King (1975) reported that autism was caused by a “double bind” attitude of mothers who superficially appear warm, but are actually cold and rejecting toward their children. Ferster (1961) used behavior principles to account for the development of the behavioral symptoms of autism and thereby implicated parent–child relationship in the etiology of autism. He suggested that the autism behavioral symptoms are quantitatively, not qualitatively, different from those of typically developing children, characterized by very low response rates. Ferster hypothesized that these very low response rates might be the result of the parents’ failure to provide adequate reinforcement for the development of a normal response repertoire. Today, evidence suggests that mothers do not cause autism, and the psychogenic theory has been refuted because no data support that assumption (Cantwell, Baker, & Rutter, 1978; Cohen & Volkmar, 1997).
Since Kanner's original description of the symptoms of autism was published, several studies have been conducted to determine the core features that are common to all children with autism. Numerous comparative studies have established that children with autism exhibit difficulties in social relationships, display delayed language and communication, and exhibit ritualistic or compulsive behaviors (Gleberzon & Gleberzon, 2001; Waterhouse, Wing, Spitzer, & Siegel, 1992). Presently, autism occurs in approximately 16 children per 10,000 for more narrowly defined autism and up to 40 children per 10,000 for the more broadly defined groups of conditions marked by qualitative deficits in socialization. Autism is 4 times more common in boys than in girls (APA, 2000; Baron-Cohen, Saunders, & Chakrabarti, 1999; Chakrabarti & Fombone, 2001; London & Etzel, 2000; Rutter, 2000; U.S. Department of Education, 2001).

Biological causes such as organic brain damage from chemical, genetic, and physical damage due to head injury, metabolic problems, immunology, infections as well as other environmental causes have been speculated (Gillberg, 1988). However, there is no convincing evidence for a specific etiology. Whether autism has a single cause, multiple causes, or coexisting neurological deficits is not certain (London & Etzel). Consequently, one of the major problems in the field is the disagreement over the definition of autism, which has undergone several revisions in the Western world as evidenced by continual Diagnostic and Statistical Manual of Mental Disorders (DSM) revisions regarding the diagnostic label of autism.
Definitions of Autism

Autism is known as a syndrome of multiple deficits within which several distinct symptoms coexist. The behavioral symptoms of autism can be classified as social impairments, language and communication impairments, and behavioral repertoire.

Social impairments. One notable characteristic of children with autism is their lack of social development (Bauminger, Shulman, & Agam, 2003; Mundy, 2003). In fact, social skills deficits are generally viewed as constituting the central feature of autism (Hobson, 1989; Mundy & Sigman, 1989; Ungerer, 1989). Children with autism lack responsiveness to others and may withdraw from all social contacts. They have difficulties relating to other people, and they seem to prefer objects. When other people are sharing laughter through their smiles, the child with autism usually fails to respond (Prior & Ozonoff, 1998; Schreibman & Mills, 1983).

Research on affective expression and nonverbal communication skills has suggested that disturbance in these areas may be prominent features of the social deficits of nonverbal children with autism (Glandin & Scariano, 1986; Wing, 1997). Despite the fact that social impairments have been regarded as a cardinal diagnostic criterion for autism, the social deficits of individuals with autism received little attention from researchers until the 1990s. This may be explained by the prevailing disagreements over the conceptualization of social behavior and by methodological problems. However, social deficits of children with autism could be considered a secondary manifestation of cognitive impairments; thus, the general cognitive deficits of children with autism prevented their normal social development (Hermelin & O’Conner, 1970; Rutter, 1983). This particular claim was marred by the existence of children with autism of average
intelligence and of those without autism with mental retardation who are socially 
competent relative to their mental age.

In the 1980s, a line of research utilized videotape technology, enabling 
sophisticated methods for studying social behaviors. Consequently, experimental studies 
have emerged to identify social deficits in individuals with autism (Snow, Hertzig, & 
Shapiro, 1987). This focus was linked to the hypothesis that social impairments of 
autism are not secondary features of cognitive impairments, but primary features due to a 
neurological disorder that disrupts social development (Prizant & Wetherby, 1987). 
Further, the hypothesis regards the cognitive and language impairments of autism as the 
result of impaired social development early in life. This hypothesis was supported by 
three follow-up studies (Rumsey, Rapoport, & Sceery, 1985; Szatmari, Bartotuchi, 
Bremmer, Bond, & Rich, 1989), which reported that social impairments were the most 
persistent symptoms even in high functioning adults with autism, although other 
symptoms improved with age.

It is now known that children with autism do not completely avoid people; nor do 
they fail to demonstrate any social interest or affection, especially towards close family 
members (Sigman & Ungerer, 1984). Social behavior and interaction with others are not 
completely absent in autism, but they can be strikingly deviant (Lord, 1993). Current 
research suggests that impaired social interaction is evident even before the diagnosis of 
autism is made, in the early months of development (Dawson, Osterling, Meltzoff, & 
Kuhl, 2000; Wimpory, Hobson, Williams, & Nash, 2000) and that delays in deficit or 
atypical characteristics in this domain may be a core feature of the more general 
syndrome (Sigman, 1993). Thus, researchers have devoted substantial effort to
describing the developmental course of social interactions and social relationships among children with autism as well as to designing evaluation and intervention programs to facilitate development of these competencies.

Children with autism are said to be happy when left alone to manipulate their own world. They seem to prefer interacting with objects rather than people. Thus, they lose the opportunity to develop social relationships with families and caregivers (Kanner, 1943). Early studies described them as not wanting to be held or picked up and as not demonstrating preferential social behavior to parents than to others (Bergman & Escalona, 1949; Bruner & Friedman, 1993; DesLauriers & Carlson, 1969; Kanner, 1943; Rimland, 1964).

On the contrary, Sigman and Ungerer (1984) found a level of attachment between children with autism and their mothers. Their study of 14 children with autism and 14 normal children matched on a mental age of 24.1 months were observed during free-play situations as well as during separation and reunion with their mothers and a stranger. The children with autism directed more social behaviors and more physical contact to their mothers than to the stranger. They preferred to be in close proximity to their mothers during the reunion episodes, although no specific attachment responses were showed during free play and separation. Based on parents’ and professionals’ reports of “near-normal” adolescents with autism, Dewey and Everand (1974) concluded that individuals with autism can attach to another person even deeply.

Additionally, individuals with autism tend to express their affection nonreciprocally in their conversations. Some high-functioning individuals with autism talk very well, even too much when they are excited about a topic, but they pay little
attention to the listener (Treffert, 1988). Several laboratory studies of attachment behavior in autism in the last two decades have yielded surprising patterns suggesting that children with autism met standard criteria for secure attachment patterns with their caretakers (Capps et al., 1994; Rogers, Ozonoff, & Maslin-Cole, 1993; Shapiro, Roberts, & Fish, 1987). However, many researchers have questioned the validity of the attachment construct in autism, especially the general measure of reciprocity (Kasari, Sigman, Mundy, & Yirmiya, 1990; Lord & Pickles, 1996; Tanguay, Robertson, & Derrick, 1998).

Some children with autism differ greatly from other populations in many aspects of relationships with their parents and others, even though their attachment measures may not differ. They may show affection nonreciprocally regardless of the thoughts and feelings of others, and it may be inappropriate in some social situations. In an attempt to understand the real attachment characteristics of children with autism, studies focusing on the qualitative aspects of attachments are warranted.

**Poor eye contact.** Lack of meaningful eye contact is frequently reported as one characteristic of social dysfunction in children with autism (Lovejoy & Estridge, 1987). Eye contact is usually poor, avoidant, and deviant (Schreibman & Mills, 1983). Considering that eye contact is the most frequent mode of preverbal communication (Ling & Ling, 1964), it can be concluded that it is an important foundation for later social and communicative behaviors because it plays an important positive role in the development of interpersonal relationships (Mirenda, Donnellan, & Yoder, 1983). The question remains, why do children with autism avoid eye contact? Some theorists like Hutt and Ounsted (1966) hypothesized that the gaze avoidance of children with autism is
intended to minimize overstimulation due to mutual gaze, because children with autism have a high level of arousal.

O’Conner and Hermelin (1967) found that children with autism simply have shorter visual fixation time on all types of stimuli, not faces in particular. Further, they did not differ from those without disabilities or normal children in visual preferences for social stimuli; both preferred to look at a photograph of a face rather than at a geometric pattern. Children with autism also preferred to look at a real face rather than a photograph of a face. Langdell (1978) tested the hypothesis that children with autism get little information from eye contact. Regarding tests of recognition of peer faces, Langdell found that young children with autism made fewer errors than participants who had no disabilities and who had mental retardation, when the lower half of the face was shown rather than the upper half of the face. Langdell concluded that children with autism are less dependent on information contained in the upper half of the face, especially the eye area, for recognition.

Mirenda et al. (1983) found that whereas normal children use more eye contact during dialogues, in which eye contact plays an important role in regulating turn taking, children with autism exhibit more eye contact during monologues. Ozonoff (1991) and Smalley and Asarnow (1990) found that individuals with autism were as good as non autistic individuals of the same verbal ability at recognizing the faces of others (Powell & Jordan, 1993; Russell, 1996). This information suggests that what is important is not the amount of eye contact, but rather the way eye contact is used (Jordan, 1999). Lack of empirical evidence coupled with inconclusive data continues to be controversial; thus,
more empirical data are needed in this area to verify the existence and characteristics of gaze aversion.

**Inappropriate expression of emotion.** Deviant emotional expression is often described as one facet of the social impairment of individuals with autism. According to Rimland (1964), some individuals with autism display a flattened affect and seldom show any emotional behaviors. Otherwise, they tend to show only the extremes of emotions in a way that is inappropriate for their age and the social situation (Ricks & Wing, 1975). Whereas mild facial expressions of feelings are rarely seen, unusual and profound mood swings from cheerful laughing to intense crying is common. Evidence supports that children with autism are not flat in affect, nor is the affect they express totally inappropriate or unrelated to the social context.

Snow et al. (1987) compared 10 young children with autism and 10 non autistic, developmentally delayed children matched for chronological age (3 years 4 months) and mental age (2 years 3 months) in their expression of emotions. Each child was videotaped for fifteen minutes of interaction with the mother, a male child psychiatrist, and a female nursery school teacher. The videotapes were coded using a behavioral checklist. The results indicated that the autistic group displayed less than half as many positive affects as did the developmentally delayed group. In contrast, negative affects did not differ in frequency between the two groups, even though the children with autism showed significantly more negative affect toward the unfamiliar psychiatrist than toward the familiar mother or the teacher. Additionally, a higher percentage of positive affect occurred during solitary play, although it was not observed in the social context. However, the developmentally delayed group almost never showed positive affect under
those conditions. This phenomenon is very similar to the eye contact children with autism show during monologue rather than dialogue situations.

Macdonald et al. (1989) examined 10 adult male individuals with autism and 10 normal male individuals who were individually matched for both age and nonverbal IQ. The participants were read a short description of a situation in which the particular emotion might be provoked. Next, the individuals with autism were asked to express the emotions they might have felt. Individuals with autism demonstrated significant deficits in imitating affective expression in both facial and vocal modalities. Regarding the production of facial expressions, individuals with autism displayed more problems on the negative emotions. On the vocal expression task, individuals with autism were less likely to be described as neutral and happy and considerably more likely to be described as sad. The authors linked this result with clinical observations that individuals with autism tend to speak in monotones. Many clinical reports have suggested that individuals with autism are emotionless. However, systematic studies suggest this may not be the case at all times or in all cases (Bauminger & Kasari, 2000; Kasari, Chamberlain, Paparella, & Bauminger, 1999).

Expression of emotion involves multiple prerequisite elements such as information processing of events that provoke an emotion or retrieval and association of relevant memories, expectations, and methods for coping with the emotion provoking events (Bauminger & Yirmiya, 2002; Holzman et al., 1988; Paul & Cohen, 1985). These capacities are usually deficient in individuals with autism. Therefore, individuals with autism may be more disturbed in an emotion-provoking situation that requires emotional
capacity. Future research needs to focus on more specific issues such as what kind of emotional expression is mostly disturbed, under what kind of situation, and with whom.

*Impaired social cognition.* A relatively new hypothesis in the field of autism has been labeled “theory of mind.” Theory of mind refers to the notion that many individuals with autism do not understand that other people have their own plans, thoughts, and points of view (Baron-Cohen, 1995; Baron-Cohen, Tager-Flusberg, & Cohen, 1993; Beggeer, Rieffe, Meerum Terwogt, & Stockmann, 2003; Rieffe, Meerum Terwogt, Hagenaar & Koops, 2000). Thus, recent empirical evidence supports the idea that a primary deficit in autism lies in the area of social cognition, specifically, the capacity to understand the mental states of another. The ability to conceive the mental states of others means predicting what other people think, feel, want, and expect and predicting their behaviors towards others. The ability to take into account others’ cognitive states may be much more important than taking into account physical circumstances and becomes a crucial component of social skills. By not understanding that other people think differently than themselves, many individuals with autism have problems relating socially and communicating to other people. Individuals who cannot perceive another’s mental state may show unexpected behaviors that confuse and hurt others as well as themselves. Eventually, as a result, these individuals become isolated (Frith & Frith, 1999).

Many symptoms shown by individuals with autism, such as irrelevant comments and failure to develop friendship, may be explained by this social incomprehension (Baron-Cohen, Leslie, & Frith, 1985; Frith, 1989; Frith, Morton, & Leslie, 1991). According to Richer and Coates (2001), the problem with children with autism is not a
specific failure to be able to take the viewpoint of others, but a poor integration of self and other, such that they have difficulty taking the viewpoint of others into account while planning their own behavior and difficulty in responding at all when they are attending to another’s viewpoint. Theory of mind can be traced back to Piaget’s work on children’s thinking and geocentricism (Caruthers & Smith, 1996; Piaget, 1929). The question remains, how does one teach individuals with autism to understand and acknowledge the thoughts and feelings of others, which is an important component in life? Therefore, some aspects of the social impairments noted in individuals with autism are attributed to the inability to understand the mental states of others. This has been supported by much empirical evidence, even though some investigators have suggested that ability to conceive the mental states of others is related to a certain level of verbal mental ability, and inability to conceive mental states of others is not a unique characteristic of individuals with autism (Baron-Cohen, Leslie, & Frith, 1989; Frith & Frith, 1999).

Addressing the social impairments of autism, lack of reciprocity seems to be the most distinct deficit and is expressed in a number of different forms. The social deficits of autism seem to originate with individuals’ impaired social perception, impaired social cognition, or perhaps both. Researchers speculate that without the ability to understand the minds of other people, individuals with autism are unable to use language in a communicative way, since communication relies so heavily on intention and interpersonal connections. Because they have difficulties understanding the feelings and thoughts of others, they respond inappropriately in social situations (Chin & Bernard-Opitz, 2000; Mundy, Fox & Card, 2003).
Children with autism have particular problems of speech and language, and several lines of research point to language disorders such as verbal and nonverbal language as a core feature of autism (APA, 1987, 1994, 2000; Fein, Pennington, Markowitz, Braverman, & Waterhouse, 1986; Frith, 1999; Lord & Paul, 1997; Prizant, 1996). Researchers have recognized that children with autism have difficulties not only in acquiring speech and language; but also in understanding and using nonverbal behavior in communicative interactions.

Research has indicated that approximately 50% of children with autism never gain useful speech (APA, 1994; Cohen & Volkmar, 1997; Eisenberg, 1956; Frith, 1999; Lotter, 1966, 1967; Mesibov, Adams, & Klinger, 1997; Ogletree & Harn, 2001). Research also has indicated that less than 10% of individuals with autism develop language appropriate for their chronological age (Mirenda, 1992; Wing, 1976). However, even though they develop language, it is delayed and deviant, typically characterized by echolalia, parroting or repeating what they have heard; pronoun reversal, whereby they refer to themselves as a third person such as you, he, she, or their name; impaired language comprehension; and a lack of social use of language (APA, 1994; Nyoike, 2004; Wetherby, Schuler, & Prizant, 1997).

Another line of research has maintained that the core communication impairments in children with autism fall into two categories: (a) joint attention and (b) symbol use (Dawson, Hill, Spencer, Galpert, & Watson, 1990; Kasari et al., 1990; McArthur & Adamson, 1996; Mundy, Sigman, & Kasari, 1990; Sigman & Ruskin, 1999; Stone, Ousley, Yoder, Hogan, & Hepburn, 1997; Wetherby, Prizant, & Hutchison, 1998). Joint attention refers to the ability to coordinate attention with a social partner in relation to
some object or event or the ability to take turns (Munday, 2000). This ability or capacity begins to emerge around 6 months of age and takes several forms. First, the infant develops the ability to follow the direction of the gaze, head turn, or pointing gesture of another person (Scaife & Bruner, 1975). This behavior is referred to as responding to joint attention (RJA) skill (Munday, 2003; Mundy, Hogan, & Doehring, 1996; Seibert, Hogan, & Mundy, 1982). Second, the child develops the use of eye contact and gestures (pointing or showing) spontaneously to initiate coordinated attention with a social partner.

The later part of the protodeclarative act (Bates, 1979) is referred to as initiating joint attention (IJA) skills (Mundy, 2003; Mundy et al., 1996; Siebert et al., 1982). It is evident that these two behaviors, especially IJA, serve social functions. Therefore, the goal and reinforcement of these behaviors revolve around sharing experiences with others and the importance of these skills in a young child. Another skill worth mentioning is the protoimperative act (Bates, 1979) or initiating behavior request (IBR) skill (Mundy et al., 1996), which refers to the use of eye contact and gestures to initiate attention coordination with another person to elicit aid in obtaining an object or event. With these skills in mind, there is no doubt that joint attention skills are critical milestones of early development and language development as well as social learning (Bakeman & Adamson, 1984; Baldwin, 1995).

When children fail to develop joint attention, they have difficulties coordinating attention between people and objects as well as orienting and attending to a social partner, shifting gaze between people and object and sharing emotional states with another person, and being able to draw attention to objects or events for the purpose of
sharing experiences (Sigman & Ruskin, 1999). On the other hand, symbol use reflects difficulty learning conventional or shared meanings for a symbol and is evident in deficits in using conventional gestures, learning conventional meanings for words, and using objects functionally and in symbolic use. To support the theory that joint attention is a significant predictor of language outcome, Mundy et al. (1990) found that measures of gestural joint attention such as showing or pointing to direct attention at initial testing were a significant predictor of language development a year later for preschool children with autism. Thus, the failure to acquire gestural joint attention is a critical milestone that impairs language development and an important target for early communication intervention. In effect, children with autism fail to compensate for their lack of verbal skills with gestures and show limited gestural use. Therefore, they tend to use motoric gestures to communicate such as leading, pulling, or manipulating another’s hand. What they lack is the use of many conventional gestures such as showing, waving, pointing, nodding the head, and symbolic gestures depicting actions (Loveland & Landry, 1986; Stone & Caro-Martinez, 1999; Wetherby et al., 1998).

**Echolalia.** Echolalia refers to automatic repetition of words heard. It is a common abnormality of children with autism that is evident in 75% of verbal individuals with autism (Baltaxe & Simmons, 1981; Sullivan, 2003). According to Prizant, Schuler, Wetherby, and Rydell (1997), echolalia is the imitation of speech of others and may be immediate or delayed. Immediate echolalia has been regarded as meaningless with no comprehension of the repeated utterance and no communicative intent. Many cases of delayed echolalia are also nonfunctional; however, compared with immediate echolalia, it
often has been found to have a clear, communicative intent (Koegel & Koegel, 1996; Mauk, Reber, & Batshaw, 1997).

Early studies argued that the presence of echolalia is a necessary first step in language acquisition and that the amount of echoing is positively correlated with linguistic ability (Risely & Wolf, 1967). This concept was rejected by Fay and Butler (1968), who argued that echoing was nonfunctional, undesirable, and equated with poor language acquisition. In support of Risely and Wolf, Baltaxe (1987) an Tager-Flusberg (1996) maintained that children with autism who progress beyond echolalia usually acquire a more advanced aspect of grammar but show persisting problems in following the social rules and shifting between speaker and listener roles of conversation. Some types of both immediate and delayed echolalia are not just nonfunctional or self-stimulatory, but are functional with communicative intentions. Therefore, echolalia may be the only strategy available for responding when a question or statement is beyond the child's comprehension; it may serve to enhance language learning as well as to promote social interaction (McEvoy, Loveland, & Landry, 1988; Paul, 1987). Since an echolalic utterance is usually equivalent to a single word or label for a situation or event, many children may learn to use echolalia purposefully in communicative interactions and eventually may be able to break down the echolalic chunks into smaller, meaningful units as part of the process of transitioning to a rule-governed, generative language system (Prizant & Rydell, 1993).

**Pronoun reversal.** In his 11 published case studies, Kanner (1943) gave prominence to children's abnormal use of personal pronouns. Many clinicians have reported that children with autism who echo consciously refuse to use the pronoun I and
instead refer to themselves as “you” (Glandin & Scariano, 1986; Kanner, 1943; Lee & Hobson, 1994). For example, the child may say, “You want a cookie,” although meaning, “I want a cookie.” Various explanations for the abnormality in pronoun use have been suggested. The psychoanalytic approach interprets that some motivational and emotional factors may underlie the refusal of children with autism to use “I” (Bettelheim, 1967).

Some use personal pronouns strangely, referring to themselves not only as “you,” but also as “he” or “she” (Lee, Hobson, & Chiat, 1994; Tager-Flusberg, 1999). These errors reflect difficulties in conceptualizing notions of self and other, as they are embedded in shifting discourse roles between listener and speaker. To use pronouns such as I, the child must realize that the referent of I changes constantly in reciprocal conversation, depending on who is the speaker (Capps, Kejres, & Sigman, 1998; Frith, 1999). Bartak and Rutter (1974) viewed it as a result of echolalia and argued that failure to use I was just the accidental combination of its usual position in sentences and the tendency of children with autism to echo only the latter parts of sentences they hear.

An alternative explanation of persistent pronominal errors in children with autism was proposed by Oshima-Takane and Benaroya (1989). They stated that many normal children acquire correct use of pronouns by attending to speech addressed not only to them, but also to others. They maintained that normally developing children extract information from speech addressed to another person and that observing pronouns used in speech addressed to another person is very important for the acquisition of correct use of pronouns. However, children with autism who have a severe attention deficit often do not attend to the speech of others and therefore make pronominal errors. Although it is
unclear exactly why children with autism make pronominal errors, it has been attributed to a psychosocial deficit, a result of echolalia that reflects a lack of comprehension, or a failure to observe pronouns in speech addressed to another person. Regardless of its cause, pronoun reversal is a frequently observed behavioral symptom in echoing children with autism.

**Behavioral characteristics.** Regarding the major distortions of basic psychological functioning, children with autism also exhibit several other problems. Perhaps the most intriguing of the core characteristics used to define autism are those that describe repetitive and restricted activities, interests, and patterns of behavior. These include self-injurious behaviors, self-stimulatory behaviors, and ritualistic phenomena. In a review of literature, Tsai (1998) presented data indicating that the occurrence of these behaviors is very high—for example, unusual preoccupations (43–88%), obsessive phenomena (37%), compulsive rituals (16–86%), stereotyped utterances (50–89), and stereotyped mannerisms (68–74%).

In the 1980, the ASA defined autism as a “severely incapacitating life-long developmental disability” that occurs throughout the world to all racial, ethnic and social backgrounds” (p.6). In 1987, the ASA changed the definition to read that autism was “not a mental illness or any other kind of illness” and could be caused by “inborn disorders of metabolism” or “neurological defects or viral-related causation” (p. 1). At the same time, ASA (1987) added that autism is found throughout the world, in every social class, with a “uniform clinical picture” (p. 1). In 1989, the same organization defined autism as a “behaviorally defined syndrome” and highlighted essential features such as disturbance of developmental rates and/or sequence; response to sensory stimuli;
speech, language, and cognitive capacities; and capacities to relate to people, events, and objects. Towards the end of the year, ASA defined autism as a "severely incapacitating lifelong developmental disability" resulting from a "neurological" disorder that affects functioning of the brain, with a prevalence of approximately 15 out of 10,000 births. In addition, the ASA included the behavioral symptoms of autism: (a) disturbance in the rate of appearance of physical, social, and language skills; (b) abnormal responses to sensations, with any one or a combination of senses or responses affected, including sight, hearing, touch, balance, smell, taste, reaction to pain, and the way a child holds his/her body; (c) absent or delayed speech and language, while specific thinking capabilities may be present; and (d) abnormal ways of relating to people, objects, and events (ASA, 1989, p. 24). More recently, the ASA defined autism as a "complex developmental disability" that typically appears during the first 3 years of life and results in a neurological disorder that affects the functioning of the brain, with a prevalence of 2 to 6 in 1,000 individuals (ASA, 2001; Centers for Disease Control and Prevention, 2000).

Due to the paucity of diagnostic studies in different ethno-cultural groups, it is possible that existing definitions of autism may have limitations, especially when it comes to assuming that autism has a uniform clinical picture regardless of cultural background. Such claims can be made only while supported with data from other regions outside the United States and Europe and with different ethno-cultural groups (Obiakor, Wilder, and Dyches, 2004). Otherwise, these definitions are limited because each is different, demonstrating little consensus about the definition of autism; the direction research takes is ultimately shaped by the way a researcher defines autism. More specifically, in different studies, autism has been defined as a developmental disorder...
(Goldberg, Landa, Lasker, Cooper, & Zee, 2000), as a neurodevelopmental disorder (Pelphrey, Sasson, Reznick, Paul, Goldman, & Piven, 2002), as a neuropsychiatric disorder (Vrancic et al., 2002), and as a treatable medical condition (Okwemba, 2003a, 2003b). Therefore, the uncritical acceptance of these definitions may do a disservice to those most involved with the treatment of autism by instilling a rigidity of thinking that does not allow for consideration of new ideas by different professionals concerned with the study of autism (Tinbergen, 1974). In fact, one of the goals for the "Autism Roadmap" 2004 was to encourage collaboration among researchers and to work on the definition of autism (Gross, 2003).

Indeed, all the above definitions assume that autism is a worldwide occurrence, despite paucity of research data from most third world countries. The important question, however, is not only whether it is to be found everywhere else in the world, but also whether it is expressed in the same way worldwide. This is an important question because if autism is not expressed the same way worldwide, then researchers must redefine autism to accommodate cultural differences.

*Diagnostic Classification of Autism*

A direct result of the problematic definition of autism has been the lack of a systematic method for identifying individuals with the syndrome. Despite Kanner's work as well as that of other researchers supporting the classification of autism as a separate category, the DSM-II did not include autism (APA, 1968, as cited in Schoppler, 1994). Autism was included as an official category in the DSM-III (APA, 1980) as subtypes of pervasive developmental disorders, which included infantile autism, childhood-onset pervasive developmental disorder, and atypical pervasive developmental disorder. In
DSM-III, the criteria that defined autism included (a) onset prior to 30 months of age; (b) pervasive lack of responsiveness; (c) gross deficit in language; (d) peculiar speech patterns such as echolalia and pronominal reversal; (e) bizarre responses to environment; and (f) absence of delusions, hallucinations, loosening of associations, and incoherence as in schizophrenia.

The DSM-III (APA, 1980) included only two types of pervasive developmental disorders: (a) Infantile Autism, Full Syndrome (299.00), and (b) Infantile Autism, Residual Type (299.01). Although the diagnostic criteria for autism were new to the DSM, many researchers questioned the appropriateness of onset as a diagnostic criterion because there are cases in which autism developed after 30 months of age (Cohen, Volkmar, & Paul, 1986; Gillberg, 1986; Rutter & Schoppler, 1988; Schopler, 1994; Siegel, Anders, Ciaranello, Bienenstock, & Kraemer, 1986). Second, the lack of an operational definition—such as a “pervasive lack of responsiveness to other people” (APA, 1980, p. 89)—was indicated as a problem. Third, because deviant and delayed behavior coexists in children with autism, researchers identified insufficient attention to developmental consideration as a problem (Cohen & Volkmar, 1997).

In order to accommodate the above recommendations, the revised DSM-III (APA, 1987) changed the definition of autism. The DSM-III-R retained the term pervasive developmental disorder for the broad category to which autism belonged. However, the term infantile in infantile autism was dropped because most individuals with autism continue to exhibit the disorder after early childhood. The criterion of early onset was also dropped, and 16 operationalized criteria were adopted addressing three main
symptom areas: (a) reciprocal social interaction, (b) verbal and nonverbal communication and imaginative activity, and (c) restricted repertoire of activities and interests.

The two types of autism described in the DSM-III-R were Autistic Disorder (299.00) and Pervasive Developmental Disorders Not Otherwise Specified (299.80). The DSM-III-R (APA, 1987) addressed developmental considerations in the diagnosis by defining deviance in relation to the child’s mental age. The diagnostician using DSM-III-R criteria for autism was supposed to rate as non applicable any symptoms that could not occur given the respondent’s mental age. For example, a five-year-old child whose mental age is one year and who does not show communicative speech should not be regarded as a child with autism; rather, the lack of speech should be interpreted in terms of developmental delay. However, this procedure ruled out six of 16 criteria for autism in the DSM-III-R as inappropriate for children who are younger and have more severe cognitive deficits, since these symptoms can occur only at certain mental ages.

Under these conditions, the likelihood of a diagnosis of autism for younger children and those with severe cognitive problems was dramatically reduced (Siegel, Vukicevic, Elliot, & Kraemer, 1989). Indeed, the DSM-III-R satisfied some researchers and professionals because it offered a better description of behaviors and more sensitive indicators in the autism category; however, the Pervasive Developmental category was highly criticized because it did not provide any indicators at all and was misleading regarding what constitutes such a category (Factor, Freeman, & Kardas, 1989). As a result, the DSM-IV (APA, 1994) description of autism was developed to address these issues. Indeed, the changes to the definition were dramatic.
According to the DSM-IV (APA, 1994) and the DSM-IV-TR (APA, 2000), 12 operationalized criteria address three main symptom areas commonly referred to as the triad of impairments: (a) impairment of social interaction; (b) impairment of communication; (c) and restricted repetitive and stereotyped patterns of behavior, interests, and activities (APA, 1994, pp. 66-70; APA, 2000, pp. 70-75). The debate has continued as to what types of autism should be included (Rasmussen & Sponheim, 1993; Rutter & Schoppler, 1992; Tsai, 1992; Volkmar, 1992). The DSMIV (APA, 1994) includes five types of pervasive developmental disorders: (a) Autistic Disorder (299.00), (b) Rett’s Disorder (299.80), (c) Childhood Disintegrative Disorder (299.10), (d) Asperger’s Disorder (299.80), and (e) Pervasive Developmental Disorder Not Otherwise Specified including atypical autism (299.80). In the DSM-IV, criteria are spelled out clearly with examples. Additionally, lack of eye contact was added as a primary characteristic instead of secondary as in the DSM-III-R. Also, rigid or stereotyped play was added.

Looking at the diagnostic criteria in the DSM-IV, it is uncertain where the boundary is drawn, especially when it comes to children with mild mental retardation who display some characteristics of autism. Also, words such as “marked or qualitative impairments” are not operationally defined, which leaves diagnosticians with an option to create their own operational definitions. Some argue that the disorders included in the DSM-IV have been included based on large amounts of empirical data that support the presence of the disorders such as Rett’s syndrome and Asperger’s disorder (Rasmussen & Sponheim, 1993; Szabo & Aber, 1992; Tsai, 1992).
With this in mind, the increased number of cases of children with autism may be due partly to these broader diagnostic criteria. The WHO international classification of diseases (ICD) has been adopted widely outside the United States. The ICD-8 placed autism under schizophrenia. The two most recent revisions of this system, ICD-9 and a draft version of ICD-10, were published in 1980 and 1987, respectively, and a final form of ICD-10 appeared in 1993. Both categorize autism as “psychoses with an origin in childhood.” ICD-10 defines a number of separable categories under the general heading of “pervasive developmental disorder”: Childhood Autism (F84); Atypical Autism (F84.1); Rett’s Syndrome (F84.2); Other Childhood Disintegrative Disorder (F84.3); Overactive Disorder Associated With Mental Retardation and Stereotyped Movements (F84.5); Other Pervasive Developmental Disorders (F84.8); and Pervasive Developmental Disorder, Unspecified (F84.9).

Autism is characterized by the triad of impairments, namely, impairments (a) in reciprocal social interaction; (b) in communication; and (c) in restricted, stereotyped, repetitive behavior (WHO, 1993). It is evident that despite similarities between the DSM and ICD-10, an individual diagnosing autism using the DSM would have a different concept of autism than an individual using the ICD-10; ICD-10 still describe autism as a type of psychosis, which is not the case with the DSM-IV. This could partly explain lower prevalence rates reported in countries using the ICD medical systems. It should be noted that, although the Western population makes up only one sixth of the world’s population, a Western diagnostic framework has been accepted as a “gold standard” for all. Along with the gold standard perspective is the possibility that cultural variations in
the symptoms of psychopathology are regarded as minor variations and western symptoms are considered the central patterns of the illness (Cueller, 2000).

Another potentially misguided perspective regarding the relationship of culture and symptoms of psychopathology is that culture relates only to ethno-cultural minority groups (Choi, 2002). Since the DSM was first published in 1952, it has undergone several revisions that made no mention of culture. However, the current versions (DSM-IV and DSM-IV-TR) acknowledge the significance of culture and ethnicity in understanding psychopathology. APA (1994, 2000) has warned against under diagnosing or misdiagnosing by being alert to ethnic and cultural specificity. Indeed, the diagnosis of autism is a challenging task, and professionals often have difficulties interpreting diagnostic criteria due to the heterogeneity of the disorder across persons and the change in its symptoms within individuals as they mature (Charak & Stella, 2002). However, various standardized rating scales and observational checklists are used as another approach to diagnosing autism and have shown acceptable validity and reliability (Charak & Stella, 2002; Gilliam, 1995; Rutter & Schoppler, 1997).

Although several studies have suggested that these diagnostic instruments tend to be accurate in screening for and identifying autistic behaviors, some difficulties have been noted. For example, research indicates that existing diagnostic instruments are most accurate for somewhat-verbal school-age children with mild to moderate levels of mental handicap, but decrease in reliability according to how far one moves away from this group (Lord, 1997). Additional research supports that it is difficult to differentiate autism from other developmental delays or language impairments in young children who are nonverbal and who have mental ages below 18 months (Lord, Storochuk, Rutter, &
These diagnostic instruments may tend to over diagnose children with significant cognitive delays as having autism. Also, a small proportion of children with autism are misdiagnosed as having language disorders, especially among children who do not yet show repetitive behaviors (Lord & Risi, 2000).

In addition, current diagnostic instruments may be less reliable in identifying higher functioning children or those with more mild symptoms (Filipek et al., 1999; Yirmiya, Sigman, & Freeman, 1994). The many different tools used to diagnose autism are also a matter of concern. Schopler (1997) reflected on the confusion and disagreement concerning the diagnosis of autism. He believed that this confusion has led to “errors in sample selection, needless frustration among clinicians and investigators, and unnecessary misinterpretation of important research” (p. 137).

Also, according to the APA (2000), the increased number of individuals diagnosed as having autism may be due to different methods used to diagnose. In regard to other cultures, because these scales have been constructed and utilized largely in the United States, they tend to reflect dominant western frames of reference and not the norm. These belief systems may be somewhat inadequate when dealing with individuals from different cultures who may have different conceptualizations of the disorder embedded in their particular social, cultural, political, and religious systems (Sternberg & Bhana, 1989).

APA (2000) maintained that clinicians unfamiliar with the “nuisances” of an individual’s cultural frame of reference may judge incorrectly as psychopathology those normal variations in behavior, beliefs, or experiences that are particular to the individual’s culture. If the concept of autism is confusing to the Western world, the
confusion is even greater to other countries and ethno-cultural groups where the scales, education, and intervention strategies are deployed. In spite of the efforts of scholars to understand autism over more than six decades, there has been little consensus concerning its definition, diagnostic criteria, and etiology.

Since the definition of autism depends on behaviorally defined symptoms, information regarding the symptoms and associated features should be obtained in broader geographical areas and ethno-cultural groups in order to establish a universally accepted definition of autism. Autism’s prevalence and expression may be influenced both by interaction of culture and by biology. For example, there is evidence that child-rearing practices and culturally prescribed values may be influential as early as birth. The classic study of mothering and infant behavior by Caudall and Weinstein (1969) noted differences in the behavior of the infants, which reflected the style of caretaking of mothers in two countries. The researchers carefully observed behavior of mothers and three- to four-month-old infants in Japan and the United States. They found that American mothers were more verbal, did more positioning of the infant’s body, and encouraged their babies’ physical activities and exploration of the environment more. Japanese mothers demonstrated more vocal lulling, carrying, and rocking of their babies. As a result, American infants showed significantly more playing and happy vocal behavior, and Japanese infants were more physically passive. In another study, Freeman (1979) compared several ethnic groups and found striking differences even in newborns’ behaviors, suggesting that biological and cultural influences are not separable and that the differences are bicultural.
In studying children with disabilities, Nihira, Webster, Tomiyasu, and Oshio (1988) postulated that differential patterns of family environment in Japanese and American families influence their educable mentally retarded (EMR) children's social behaviors. In the comparison of adaptive behavior and psychosocial adjustment of Japanese and American EMR children, the American children were rated as more independent, autonomous, and socially outgoing than their Japanese counterparts, who were more passive, interdependent, and socially withdrawn. They ascribed the results to the fact that the American families encouraged their children to participate more in various community activities in order to learn skills; Japanese parents focused more on teaching the child the importance of social norms, conformity, and obedience. However, American EMR children showed more maladaptive behavior, indicating that American parents appear to have higher level of tolerance towards their children's behavior problems than do Japanese parents. These findings seem to reflect cultural differences.

Further, Harkness (1992) explored child-rearing practices among the Kipsigis in rural Kenya and among middle-class American families in the Boston area. The intent was to explore the issue of cultural variation in fathers’ role as socializers of infants and young children. In the Kenyan sample, Harkness found that child care is sorely the responsibility of the mothers, and fathers start taking part when the male child reaches the age where he can take responsibility. However, girls remain the responsibility of the mother, who must teach them how to be responsible young women. In contrast, American fathers are more involved in the care and socialization of the infants. These differences in child rearing can influence children with disabilities as well as normally developing children.
Epidemiology of Autism

Epidemiological studies of autism have important implications for both research and clinical service. These studies help plan for special services and selecting samples for research studies. In the early 1970s and 1980s, several epidemiological surveys (Gillberg, 1984; Hoshino et al., 1980; Lotter, 1966; Treffert, 1970; Wing & Gould, 1979) conducted in Europe, Asia, and North America suggested that autism occurred universally across the world, with an estimated incidence rate of 4 to 6 per 10,000 children. However, recent epidemiological studies have shown a higher prevalence than previously reported, with a maximum of 40 per 10,000 (Fombone, 1999; Chakrabarti & Fombone, 2001). Fombone (1999) summarized the available research on this topic and systematically reviewed 20 studies conducted in 10 countries in Europe and Asia. Although he noted several methodological errors, the total population included in the review was approximately 4 million children. In the sample surveyed, 80% of individuals with autism also exhibited mental handicaps such as mental retardation. The study also identified more boys than girls (three to four boys for every girl). Further, girls with autism were more likely than boys to also exhibit mental handicaps. Currently, epidemiological studies indicate rates of 16 children per 10,000 for more narrowly defined autism and up to 40 per 10,000 children for the more broadly defined group of conditions marked by qualitative deficits in socialization (Chakrabarti & Fombone, 2001; Klin, Chawarska, Rubin, Morgan, Wiesner, & Volkmar, 2004). Recently, the epidemiology of autism has become quite controversial. In the United States alone, increased demand for autism-specific services has drawn attention to growing numbers of children with the educational category of autism (Fombone, 1999). The increasing
incidence has been attributed to better awareness of the disorder, better detection of
children with autism (Daley, 2002; Gillberg, 1990; Gillberg, Steffenburg, & Schaumann,
1991; Sigman & Daley, 2002), more complete diagnoses, and a broader definition of
autistic spectrum disorders (Fombone, 1999). In addition, some recent studies have
found very high rates of autism (Arvidsson et al., 1997; Baird et al., 2000; California
Department of Developmental Services, 1999; Centers for Disease Control and
Prevention, 2000; Kadesjoe, Gillberg & Hagberg, 1999). It should be noted that studies
reporting higher numbers were relatively small or from state surveys, in which an
educational label of autism was associated with the provision of intensive services and
thus highlighted the need for further, well-designed investigations.

Global Multicultural Issues on Autism

The literature substantiates the impact of multicultural perspectives in teaching
diverse students with autism and their families. It is important to state that examining the
impact of culture on multicultural students with autism has not been explored in 95% of
the current literature on autism. Most of the related literature discusses responses to
service, attitudes and perceptions of autism, and comparison of groups in a cultural
context. Most of the current literature has called for further research on multicultural
issues and autism.

Phuntsog (2001) examined culturally responsive teaching as one way of
implementing the concept of multicultural education in schools. In recent years, scholars
have devoted considerable attention to the importance of aligning classroom experiences
with students’ home culture as a way of enhancing social, academic and cultural
enrichment of all children. This study was, therefore, designed to identify perceptions of
teachers toward the importance of culturally responsive teaching in elementary schools in the United States. The data analysis indicated that over 96% of the respondents considered culturally responsive teaching to be an important part of working with culturally diverse students. It was significant to note that the way teachers reported their perception toward the importance of culturally responsive teaching matched the manner with which they responded to the characteristics of culturally relevant teaching.

Tsang, Lam, Cheung, Tang, and Shek (2006) conducted a longitudinal study on 34 children with autism to evaluate the usefulness of the Treatment and Education of Autistic and related Communication Handicapped Children (TEACCH) program for Chinese pre-school children in Hong Kong. The TEACH model is anchored on an organic theory of autism, and integrated behavioral, developmental, psychoeducational, psycholinguistic and ecological theoretical perspectives in its program design. Its long term goal is for students with autism to fit as well as possible into society as an adult. One of the essential questions posed by the researchers was “Does culture make a difference”? Hong Kong is an international city inhabited mainly by native Chinese. Systematic rehabilitation service for people with autism began to develop in the early 1990’s. In 1995, the TEACH program was identified by a task force of the Hong Kong government as a program that held the best promise for Chinese families with autistic members. However, the task force also remarked that cultural hurdles have to be overcome before the TEACH program can be successfully adapted and transplanted to Hong Kong. These hurdles included the adaptation of assessment and evaluation instruments into Chinese, and the development of training and research personnel to establish the evidence on successful applications of TEACH on Chinese people with
autism. Eighteen children received full time center based TEACH program training. The control group included 16 children who received different types of individualized or group training but not TEACH programming training. Instruments validated in Hong Kong were used to assess the children’s cognitive, social adaptive functioning and developmental abilities before and during the training at 6 month intervals for 12 months. Children in the experimental group showed better outcomes at posttest. They also showed progress in different developmental domains over time. The study provided initial support for the effectiveness of using the TEACH program with Chinese children. Shaked and Bilu (2006), examined the cultural tool kit employed in the Jewish ultra orthodox community to cope with autism, a predicament deemed resistant to massive cultural molding. Through 30 open-ended interviews with ultra orthodox mothers of children with autism they portray the mothers’ emerging recognition of the disorder, their care seeking activities, and their construction of explanatory models. The health care system on which the ultra orthodox mothers rely is extremely diverse, including mainstream medical and educational services, various alternative therapies, therapies specific to autism, and spiritual and mystical interventions. The outcome of these endeavors is a dual system of illness perception in which bio-medical and spiritual-religious frames of references coexist. This duality cuts across all the facets of the explanatory system: etiology, pathophysiology, treatment, and prognosis. Thirty-two ultra orthodox families with children suspected of autism were contacted by the author through the help of professionals working in ten educational and therapeutic settings in Jerusalem and Bnai Brak. These settings cover most of the facilities in the two cities where haredi children with developmental disorders are known to be treated. Of these
settings, ranging from hostels and special schools to day-care centers and foster families, three were exclusively ultra orthodox, while the other seven served other populations as well. The author conducted interviews with members of 30 families (out of the 32 to which she was referred) who were willing to participate in the study. These included 27 mothers, two couples, and one father. Given the mothers' preponderance in the interviews, Shaked and Bilu focused on their voices in the analysis. The children with autism, mostly of Ashkenazi (European) background, varied considerably in terms of age, severity of the disorder, exposure to medical agencies, and educational setting. The researchers believe that their data were enriched by this variance, though they do not claim that the group of children under study constitutes a representative sample of the target population in the ultra orthodox community. The analysis of the interviews was twofold. First, they were categorized by sorting out major themes in the mothers' narratives and examining their meanings. Each of the themes selected was represented by a category subsuming all relevant quotes from the accounts. Second, the elicited themes were contextualized by exploring how the themes were aligned together and deployed in the narrative as a whole. Combining these methods of categorization and contextualization within and across the texts, the authors sought to capture the dynamic interplay of personal experiences and cultural models that shaped the mothers' narratives. They discussed the health-seeking behaviors and elaborate interpretive edifices that the mothers used to grapple with the massive dysfunction and its disruptive impact on daily family life, to articulate its moral implications, and to endow it with meaning. Apparently the mothers hold salient and well delineated cultural schemas of autism, which are quite homogeneous. The salience of the explanatory models of the mothers is
resonant with the fact that in recent years, pervasive developmental disorders, and autism in particular, have become a focus of attention and a bone of contention in the ultra orthodox community.

Wakabayashi, Cohen, Uchiyama, Yoshida, Tojo, Kuroda, and Wheelwright (2006), examined the Autism Spectrum Quotient (AQ) children’s version in Japan. They conducted a cross cultural comparison to examine whether the UK results for reliability and validity generalize to a different culture. The Autism Spectrum Quotient (AQ) is a self-report screening instrument which distinguishes adults with high functioning autism (HFA) or Asperger Syndrome (AS) from those in the general population. It also shows that autistic traits are normally distributed in the general population, with males scoring slightly but significantly higher than females, and with scientists scoring higher than non-scientists. The only cross-cultural study using the adult version of the AQ has been with Japanese data, which reported remarkably similar results across the two widely different cultures. In this study, the researchers reported a cross-cultural comparison of the child AQ between the UK and Japan, in order to see if the pattern found in the adult AQ between the two countries also holds in childhood. Like the adult AQ, the child AQ comprises 50 items, made up of 10 questions assessing 5 different areas. In the Japanese study, three groups of subjects were tested: Group 1 comprised n = 81 children with AS/HFA (63 males, 18 females). This sex ratio of approximately 4:1 (m: f) was similar to that found in other studies and was closer to the typical sex ratio in autistic disorders than the original child AQ study in the UK. They were recruited via a specialist clinic (Yokohama Psycho-Developmental Clinic) carrying out diagnostic assessments. This specialist clinic is known as one of the most representative clinics for assessments of
PDD in Japan. Their mean age was 10.4 years (SD = 2.63, range = 6 yrs 11 m–15 yrs 1 m). They were all assessed for intelligence using the WISC-III Japanese version (Azuma et al., 1998; Wechsler, 1991), (mean FIQ = 102.5 SD = 14.59, mean VIQ = 105.0, SD = 15.61, mean PIQ = 99.5, SD = 15.80), and all participants had an IQ of at least 85 or higher. The main purpose of this study was to examine if the child version of the Autism Spectrum Quotient (AQ) could be applied to Japanese children, and compare data from the original UK study with those obtained in Japanese children. As expected from the comparison of the adult AQ data between the two countries, the UK results were replicated. These results suggest that the children’s version of the AQ can be applied to Japanese children adequately, and that autism spectrum conditions are expressed in a very similar way across widely differing cultures. The results also demonstrate the reliability of the child AQ in terms of generating very similar patterns of results in two very different samples.

In summary, the research discussed above substantiates the relevance of multicultural perspectives in teaching diverse students with autism and their families. Over that past few years some researchers have challenged schools and educators to find creative ways to work with multicultural students with autism to ensure that they receive a high quality and equitable education and services. Gay (2002) asserted that the academic achievement of students from culturally and linguistically diverse backgrounds would improve if educators were to make the effort to ensure that classroom instruction was conducted in a manner that was responsive to the students’ home cultures.
Cultural Groups and Autism in the U.S.

Dyches, Wilder, Sudweeks, Obiakor, and Algozzine (2004), studied autism within cultural groups and multicultural family adaptation based on the framework of pluralistic societies in which some cultural groups are a minority within the dominant culture. Comparisons between racial groups of students with autism and students served under all 13 diagnostic IDEA’97 categories, including autism, also indicate racial disparities. The total number of children aged 5-19 years for each racial group is based on the U.S. census report for the year 2000. The racial groups included Caucasian, African American, Hispanic, Asian, and Native American. Data was collected by multiplying the IDEA autism data by 15/16 (.9375) in each racial category. Chi Squared=3,207.14, df=4, p<.0001, clearly indicated a dependent relationship between race and students identified with autism under IDEA. However, without additional information regarding how the data were obtained and what they actually represent, no firm conclusion could be made. Dyches, Wilder, Sudweeks, Obiakor, and Algozzine (2004) raised some critical questions about the discrepancies in minority students who are being served under the IDEA’97 label of autism. Are there actual differences in the prevalence of autism across races? How are individuals with autism being categorized ethnically? Most of the research examining cultural issues and autism occurred outside of the United States. Limited research or consideration in a cultural context has been done in developing best practices in educating children with autism.

Ochs, Kremer-Sadlik, Sirota, and Solomon (2004), offered an anthropological perspective on autism, a condition at once neurological and social, which complements existing psychological accounts of the disorders, expanding the scope of inquiry from the
interpersonal domain, in which autism has been predominately examined, to the socio
cultural one. Persons with autism need to be viewed not only as individuals in relation to
other individuals, but as members of social groups and communities who act, displaying
both social competencies and difficulties, in relation to socially and culturally ordered
behavior. The article articulates a socio cultural approach to perspective taking in the
three social domains: (1) participating in conversational turn taking and sequences; (2)
formulating situational scenarios; (3) interpreting socio cultural meanings of indexical
forms and behavior. Providing ethnographic data on the everyday lives of high
functioning children with autism and Asperger Syndrome, the article outlines the success
in conversational turn taking to least in inferring indexical meanings. Implications of
these abilities and limitations are considered for theoretical approaches to society and
culture, illuminating how members of social groups are at once shaped by, and are agents
of, social life and cultural understanding.

According to Mandell and Novak (2005), there is little information available
about how and why parents of children with autism spectrum disorders (ASD) make
decisions regarding which of the many available treatments to implement with their
children. Given the lack of available information regarding treatment efficacy, it is likely
that parents' beliefs about child development, interpretation of the symptoms of ASD, its
etiology and course, and their experiences with the health system influence treatment
decisions. This article addresses these issues within the context of cultural influences.
They review the small body of existing literature regarding cultural influences on
decisions regarding ASD and draw implications for the study and treatment of ASD from
the larger body of literature on culture and other health conditions of childhood. In
addition to examining the potential for differences in clinical presentation by culture and
different experiences with the healthcare system, they use Kleinman’s framework of
questions for understanding the role of culture in the interpretation and treatment of ASD.
These questions address interpretation of symptoms and beliefs about their cause, course,
and treatment. Finally, they present specific language for clinicians to use in discussion
with families with different cultural beliefs about the use of less traditional treatment
strategies. Given the inconsistent messages families receive about their children’s
condition, it is likely those families’ recognition and interpretation of the symptoms of
ASD, their beliefs about its etiology and course, and their experiences with the health
system in which their child may receive care play important roles in treatment decisions.
The meaning parents attach to their children’s symptoms and their associated beliefs
about the symptoms’ causes, prognosis, and most appropriate course of care can be
described within the context of culture. Culture is often defined as a group of people’s
way of life, consisting of predictable patterns of values, beliefs, attitudes, and behaviors.
These patterns are learned and passed from generation to generation.

Since cultural factors are intertwined with thoughts and behaviors, they may
assume a major role in the way families address deviations in their children’s
development and may influence the extent to which they subscribe to various intervention
strategies. Since many of the treatments families implement with their children may have
iatrogenic effects; they sometimes may be substituted for treatments with proven
efficacy. Despite the important role that culture may play in influencing the treatment
choices families make, a dearth of research has examined this issue in children with
autism (Mandell and Novak, 2005).
In one study, Levy et al. (2003) found that Latino children recently diagnosed with autism were six times more likely than children of other ethnicities to use nontraditional treatment strategies. Their sample of Latino children was very small, however, and the authors were unable to further explore this finding. To the authors’ knowledge, this is the only study that has specifically examined the role of culture using any definition of or proxy for culture in treatment decisions for ASD. Studies of cultural contributions to treatment decisions among children with other conditions, however, have found that, among families of the same culture, those who are less acculturated have lower adherence to physician-prescribed treatments giving some evidence of the critical relationship between culture and treatment decisions. The purpose of this review by Levy was to examine existing research on how culture and related beliefs may contribute to the use of different treatments for ASD.

Kleinman (1980) suggested a framework of questions for understanding the role of culture in the interpretation and treatment of illness. These questions address interpretation of symptoms and beliefs about their cause, course, and treatment. He presented what is known in each of these areas with regard to ASD, information regarding cultural factors associated with families’ interactions with the healthcare system that may affect treatment decisions, and evidence for the possibility that the presentation of ASD may differ among different cultural groups.

Lau et al. (2004) found that Asian/Pacific Islander and African-American parents were less likely than white parents to agree with teachers that their children’s behavior was indicative of an underlying disorder. How parents interpret these symptoms may have a critical impact on the type of treatments they use or whether they elect to engage
in treatment at all. To date, few studies have examined this issue among families of children with ASD, and fewer have examined these interpretations within the context of culture.

Daley (2004) examined how Indian families responded to their child’s autism symptoms and their help-seeking process. Daley interviewed 95 families of children with autism and found that 45% of Indian parents initially noticed social difficulties in their children, followed by 32% of families who noticed a delay in speech. These findings are in contrast to studies of American families in which parents were more likely to detect general developmental delays or regression in language skills rather than social or communicative deficits. Daley postulates that these differences are due to the fact that India’s culture is one that highly values social conformity more than the United States. Further evidence of this hypothesis is found in two recent studies by Coonrod and Stone and Mandell.

Coonrod and Stone (2004) found that parents of children with autism in the United States did not provide information specific to their child’s social interactions unless probed by their clinician. The authors suggest that parents were less aware or concerned about social milestones than they were about development in other areas such as language; another hypothesis offered by the authors is that parents make special, and sometimes unconscious, accommodations for their children to compensate for these delays. They interviewed 68 families of children with autism residing in one metropolitan area in the United States.

Mandell et al. (2004) found that parents tended to mention factors such as suspected hearing loss, language delay, and language regression. Deficits in social
interaction were reported much less or not at all. It is possible that members of different cultures respond differently to similar delays, placing different emphasis on the importance of language acquisition or social skills, for example. Whether symptom profiles truly vary by culture or whether families of different cultures prioritize different developmental skills, they may choose treatments that focus on improving specific deficits about which they are most concerned.

Blanchett (2006) discussed the problem of disproportionate representation of African American students in the special education in the context of the white privilege and racism that exist in American society as a whole. The article discusses how educational resource allocation, inappropriate curriculum and pedagogy, and inadequate teacher preparation have contributed to the problem of disproportionate representation. Blanchett argues that remedies designed to address the disproportionality challenge must place the aforementioned structural forces at the center of education research, policy, and practice. She suggested that race matters both in educators initial decisions to refer students for special education and in their subsequent placement decisions for students identified and labeled as having disabilities. Also, she stated that additional research is needed to develop research, policy, and practice interventions that are designed to address issues of inadequate allocation of educational resources, employment of inappropriate and culturally unresponsive curricula, and inadequate teacher preparation, and to examine their impact on the problem of disproportionality over time and in a variety of settings.

Valdez (2003) examined the role of cultural concerns in the assessment and placement practices of ethnic minority students in special and gifted education. The role of cultural concerns was particularly noted in federal and state definitions of special
The study found that African American students were overrepresented in the emotional disturbance and specific learning disabled categories, underrepresented in the gifted category, and placed at a disproportional rate in the mentally retarded and speech impaired categories. Hispanic students were overrepresented in the specific learning disabled categories. Native American students were overrepresented in the specific learning disabled and speech and language categories. Asian/Pacific Islander and Anglo students were overrepresented in gifted categories. The significant findings on the proportional placement of African American students on the mental retarded category suggested that prevalence rates are reviewed.

Of the cultural concerns reviewed, cultural role taking, which may include consultation with interpreters, cultural advisors, healers along with training, was found critical in the assessments of cultural variables in psychopathology and placement of ethnic minority students in special and gifted education. School practices such as problem solving approaches as well as culturally responsive teaching are recommended for use as pre-referral interventions.

Salk (2004) designed a qualitative study to connect the fields of critical pedagogy, teacher preparation, and special education. “What do teachers say about their work, and can this data be used to evaluate the cultural competence and ability to engage in culturally responsive pedagogy?” Fourteen teachers were interviewed in depth on two occasions. To ground the discussion of their work in their cultural context, the interviews began with them telling about their life from childhood on. Then they talked about what it was like to be a teacher. After making connections between these two facets of their lives, they were asked questions related to race, class and gender issues, and how these
issues impact special education. Interview data were transcribed verbatim, and then sorted into broad race, class, and gender themes with the use of the computer software program NUDIST. The data were further analyzed to determine if participants were cultural competent; and used culturally responsive pedagogy; or if their practices showed culturally incapacity; cultural blindness; and/or cultural destructiveness. The data were expanded to reflect race, but also class and gender dimensions. Of the 14 participants in this study, one African American teacher used culturally responsive pedagogy as it related to race, class and gender dimensions. Some teachers were cognizant of race, class or gender issues that negatively impacted students with disabilities and their families. Their cultural competence and ability to engage in culturally responsive pedagogy hinged on having experiences with people from diverse backgrounds. Several teachers were culturally competent in two of the three areas. Teachers were not likely to be culturally competent along race, class, and gender lines if they were white middle class, and monolingual teachers who lived culturally isolated lives. Findings from the study were used to make recommendations for special education teacher preparation programs. Improving the cultural competence of all teachers is essential if educational and post secondary outcomes for students with disabilities, especially those from minority and poor backgrounds, are to improve.

Although studies looking at African Americans as a group with autism have not been conducted, a study by Mandell, Listerud, Levy, and Pinto-Martin (2002) examined racial differences in the age at which Medicaid-eligible children first receive an autism diagnosis and examined time in mental health treatment until an autism diagnosis was received in Philadelphia. They found that on average, African American children
received the diagnosis of autism a year and a half later than Caucasian children. Caucasian children also entered mental health services at an earlier age. The authors also found that once in treatment, African American children required three times the number of visits over a period three times as long as Caucasian children before receiving an autism diagnosis. It is not known whether these differences are due to symptom differences among the two groups or some other factors. Understanding the reasons underlying this disparity is critical because earlier diagnosis of autism leads to early intervention and improved outcome.

In summary, the research discussed above describes the importance of taking a socio cultural approach in working with individuals with autism and other disabilities. Since cultural factors are intertwined with thoughts and behaviors, it assumes a major role in the way families addresses deviations in their children’s development. It may influence the extent to which they subscribe to various intervention strategies. The research has stated that it is possible that members of different cultures respond differently to similar developmental delays. It is important that culturally responsive pedagogy be used to engage individuals from diverse background.

Culturally Responsive Teaching

Teacher’s knowledge about and attitudes toward cultural diversity are powerful determinants of learning opportunities and outcomes for multicultural students. The best quality education for multicultural students is as much culturally responsive as it is developmentally appropriate, which means using student cultural orientations, background experiences, and ethnic identities as conduits to facilitate their teaching and
learning. This applies to students both in regular education and special education (Gay, 2000).

The teaching profession is overwhelmingly European-American, female, middle class, suburban, and monolingual, although students are increasingly members of ethnic groups of color, poor, urban residents, and multilingual. Teacher education programs have yet to incorporate multicultural education thoroughly enough for it to make a significant difference. These social gaps and cultural divides are major issues that must be confronted directly and critically if both regular and special education for ethnically diverse students is to be improved significantly. Several kinds of instructional reform are imperative to bring about these changes. They are critical cultural consciousness, culturally responsive classroom climates, learning communities, and multicultural curriculum content and culturally congruent instructional strategies. The essence of this reform is acknowledging and understanding the influences of race, culture, and ethnicity in teaching and learning, and using the cultural experiences, perspectives, traits, and contributions of different ethnic groups as instrumental tools for teaching academic and social knowledge, values, and skills to diverse students. Culturally responsive teaching is a comprehensive endeavor that is engendered in all dimensions of the educational enterprise, including diagnosing students’ needs, curriculum content, counseling and guidance, instructional strategies, and performances assessment (Gay, 2000).

The more variance there is between students’ cultural, racial, ethnic, and intellectual characteristics and the normative standards of schools, the greater are the chances their schools achievement will be compromised by low or negative teacher expectations. Multicultural children with autism are highly variant on these criteria of
normalcy, and are subjected to greater ill-informed teacher attitudes, expectations, and actions. Their differences that are most important for educational purposes (such as background experiences, perspectives, values, and cultural socialization) are not as readily apparent as physical traits. Therefore, they require a deep knowledge and understanding that many teachers either do not have or possibly do not value.

Professional preparation programs for special education teachers, as well as in-service staff development, must be much more aggressive and diligent about including knowledge about and skills for teaching ethnically and culturally different students, and then hold teachers accountable for implementing these changes in classroom practice.

CRT in special education. Several kinds of instructional reform are imperative to bring about these changes. Four of them are discussed here. They are critical cultural consciousness, culturally responsive classroom climates, learning communities, and multicultural curriculum content and culturally congruent instructional strategies. Together, these changes comprise the general recommendation for implementing culturally responsive special (and regular) education. The essence of this proposal is acknowledging and understanding the influence of race, culture, and ethnicity in teaching and learning, and using the cultural experiences, perspectives, traits, and contributions of different ethnic groups as instrumental tools for teaching academic and social knowledge, values, and skills to diverse students. Culturally responsive teaching is a comprehensive endeavor that is engendered in all dimensions of the educational enterprise, including diagnosing students’ needs, curriculum content, counseling and guidance, instructional strategies, and performance assessment (Gay, 2000).
Critical cultural consciousness. Of utmost importance in this approach to educating students is for teachers to become critically conscious of their own cultural socialization, and how it affects their attitudes and behaviors toward the cultures of other ethnic groups. Louise and George Spindler (1993, 1994) have developed a technique called cultural therapy that can help to expedite this consciousness-raising. It combines critical cultural consciousness with pedagogical skill development. The emphasis is on teachers revealing and analyzing how their cultural values, assumptions, and beliefs shape their behaviors in educational settings, as well as determining ways to minimize the negative effects of these influences. For example, recognizing how racial and gender prejudices distort the learning opportunities they offer to males and females from different ethnic groups.

Once this self-awareness is apparent, teachers are better able to recognize different cultural elements and nuance in their students’ behaviors and then use these insights to enhance their teaching skills. It is as important for teachers to acquire accurate knowledge about the cultures, experiences, and contributions of other specific ethnic groups, as about as their own. These mandates to know self and others apply to teachers of color as well as European Americans. Many of them are in the same situation of not understanding their cultures and how they shape their instructional behaviors, and not having adequate knowledge of the cultures of their diverse students. Consequently, critical cultural consciousness of self and others for all teachers is an important pillar of culturally responsive teaching.

Some elements of the cultures of diverse ethnic groups are more important for teachers to know than are others. These are the ones that have direct implications for
teaching and learning. They include values, communication styles, learning styles, contributions, social problems, and levels of ethnic identity development and affiliation (Gay, 1994). For example, knowing about the religious backgrounds of various Native-, Latino, African-, Asian-, and European-American groups is important to ensure that these traditions are not violated inadvertently in classroom activities. Such violations occur periodically for most groups. Of greater significance are those elements of cultural diversity that operate habitually and routinely in classrooms, such as how students from different ethnic groups determine what is important and worthy of learning, how they engage in the process of learning, and how they organize thoughts and convey information. Understanding the attributes of the storytelling motif that some students of color routinely use in communicating ideas and interacting with others, and how they try to do the same thing in their written culturally responsive teaching work in schools, will help teachers to better determine the students’ thinking strengths and weakness.

Furthermore, if teachers know how the attributes of ethnic learning styles are manifested in study habits and intellectual task performance, they will be able to teach ethnically diverse students how to study more effectively, and perform better on teacher-made and standardized tests. This improved performance may prevent some students from being referred to special education, and help others to transfer back to regular education programs. For instance, many African-American students engage in stage setting mechanisms prior to performing tasks. The uninformed teacher may see this “cultural necessity” as task avoidance, lack of academic preparedness, and off-task behaviors, and admonish the students for non-engagement, with the expectation that this chastisement will facilitate more task-focused behaviors. In fact, such a response from
the teacher may simply frustrate the students and prolong the process, since the initial efforts were aborted, and they will have to reinitiate setting the stage for performing the required tasks.

Similar needs and effects are apparent without knowing the contributions and achievements of ethnic groups. We know that children respond positively (both socially and academically) to the inclusion of complimentary information about individuals and deeds of their ethnic groups. These are the sources from which we select role models, mentors, and heroines and heroes who exemplify key educational principles and values for students to emulate. However, teachers cannot select appropriate cultural heroines and heroes from or for different ethnic groups if they are not familiar with their achievements or how potential candidates embody their ethnic groups' cultural values and standards of success. By definition, a cultural hero or heroine is one who personifies the highest cultural values and standards of his/her ethnic group. This is a powerful element of all culturally responsive teaching for ethnically diverse students in regular and special education. But it is counterproductive when the selections are not culturally appropriate. An illustrative case of inappropriateness is when a person chosen as a hero or heroine for a particular ethnic group is confused about, disaffiliated from, or denies his/her ethnic identity. This violates principles of culturally responsive teaching that acknowledge the legitimacy of ethnic identity, developing positive self-ethnic identity, and teaching students cultural competence for functioning within their own ethnic groups.

Classroom climate. The physical features, psychoemotional tone, and quality of interactions among students and between students and teachers have a tremendous impact on how or whether learning occurs. Classroom climates that are "cold," hostile,
isolative, and stressful are not conducive to the best learning for ethnically different students. In fact, most students of color perform much better in emotionally warm, caring, and supportive classroom climates (Gay, 2001). Kleinfeld (1974, 1975) found evidence of these results in her research on Athabascan Eskimo and Indian children. The most effective teachers were those who demonstrated personal caring and concern for students while simultaneously demanding and facilitating high academic performance. She called these teachers "warm demanders" because they created emotional warmth in their classrooms; developed positive interrelationships with students; extended their caring and connections with students beyond the school; and conveyed their commitment to and support of students through the frequent use of explicit verbal declarations and positive nonverbal acts such as smiles, gentle touches, teasing, and making themselves accessible to students. Foster (1995, 1997) and Ladson-Billings (1994) observed similar traits among effective teachers of African-American students.

To create these kinds of classroom climates and promote positive self-concept for ethnically diverse students, regular and special education teachers need to attend to two other major components. These are the physical environment and stress factors. Students should be routinely surrounded with images, sounds, and symbols of their ethnic and cultural diversity. Most teachers (especially those in elementary schools) have a really good sense of the importance of the visual stimulation in learning that comes from using wall decorations and multimedia materials to complement and embellish their verbal teaching. Tremendously powerful lessons are taught by and through what is on display in the classroom. These images and artifacts provide multiple avenues for students to learn similar content and skills. A videotape demonstration of a concept or skill that is
available for students to view repeatedly until they "get it" relieves the teacher from having to engage in endless repetitive teaching.

Allowing students to do demonstrative teaching on videotape is a viable and creative way to incorporate peer coaching and cooperative learning when more conventional approaches are not possible. These also are imaginative ways of using technology (something that students including those in special education are highly amenable to and competent at) to develop instructional archives that can be used repeatedly with different groups of students, and to which students can help to extend over time. Images of a variety of ethnically diverse individuals symbolizing a wide range of accomplishments, and positions of power, influence, and leadership convey to students profound messages about the reality and desirability of ethnic diversity in their lives.

These ecological approaches to teaching may capture the interest of some special education students, who have not demonstrated any interest in conventional approaches to teaching, and their presumed learning disabilities will be disavowed and high levels of intellectual competence unleashed. This has been known to happen when imaginative teaching strikes a responsive cord in previously hard-to-teach students.

Many students of color encounter race-related stress in schools and classrooms. They are bombarded with implicitly and explicitly stated racial prejudices and stereotypes on a daily basis, emanating from both society and schools. These conditions do not create conditions that are most conducive to the best academic and social performance. In fact, the reverse is true. Racial stereotypes have a strong negative effect on the academic achievement of the students whose ethnic group is the target of the stereotyping. Steele (1997; Steele & Aronson, 1995) calls this racial prejudice in
educational settings “stereotype threat.” He has conducted research that validates its negative effects on the achievement of the “academic vanguard” (highly accomplished students) in colleges and universities. His research indicates that the mere introduction of stereotypes of ethnic groups derails the academic performance of members of these groups, even when the individuals do not believe the stereotypes apply to them personally. If this happens to college students with a history of academic success, one can only imagine the effects on special education students who know that they are not expected to be very good at most school things. Students are not unaware of teachers’ perceptions and expectations, or the racial biases against their ethnic groups in society.

Culturally responsive teaching promotes and models anti-racist education. It begins this agenda by removing stereotype threat from the climate of the classroom. Instituting no-tolerance racial prejudice policies, identifying racial and ethnic stress provoking elements of classroom climates, instructional strategies, curriculum content, and assessment procedures, and replacing them with bias-free programs and practices does this. In effects, then, the classroom becomes a laboratory for learning how to construct and live in an environment without ethnic prejudices. Creating more desirable multicultural climates for living and learning is a form of social action to promote social justice, which is another critical dimension of culturally responsive teaching.

Communities of Learners

Culturally responsive teaching questions the integrity and viability of persistent individualistic and competitive learning. It is nonproductive to continue to operate on the premise that some students have to fail in order for others to succeed. The assumption that individuals learn by their own volition is simply false. A more accurate perception is
that a great deal of cooperation and collaboration are involved in virtually every learning situation whether it is acknowledged or not. Furthermore, people from different cultures, social groups, and backgrounds need to learn how to work together to deal with common concerns. Two of these that are central to living and learning in an ethnically pluralistic society such as the United States are learning how to get along with diverse people, and improving their school performance.

Culturally responsive teaching develops a sense of interdependence and feelings of community in which students understand that their lives and destinies are closely intertwined, and feel it is a moral and political obligation to help each other learn. This sense of reciprocity is analogous to the "we win/I win" ideas that permeated the civil rights philosophy and actions of Martin Luther King, Jr. In these communities students pool their intellectual resources and work diligently to help each other learn. They are taught that the learning of each individual is not complete until all members of the class have learned to the best of their ability. Therefore, members of learning communities are teachers and learners, as well as producers and consumers of knowledge.

Another salient feature of learning communities in culturally responsive teaching is multifaceted skill development. In addition to academic excellence, students learn about their own and each other's cultural heritages, how the lives of different ethnic groups are connected, moral and ethical dimensions of living and learning, and skills needed to engage in social and political reform actions. In other words, students are taught that being educated involves more than academics, and it carries with it the responsibility to use knowledge to bring about social change. This change process begins with the place where students are ± in the classroom, and it exemplifies principles of
building coalitions and networking as essential needs of effective communities by having students practice them in helping each other through the learning process.

Research on cooperative learning (Cohen & Lotan, 1995; Slavin, 1995) indicates that students from all ethnic groups, ability levels, and areas of schooling benefit positively from it in multiple ways, including higher academic performance, stronger feelings of personal efficacy, greater satisfaction with school, and improved interpersonal relations across ethnic groups. Ladson-Billings (1994) provides another strong testament to the pedagogical power of cooperative and communal learning. She found that African-American students' performance in particular skill areas, such as the mastery of academic knowledge, increased as multiple areas of learning (i.e., cultural competence, social action, moral responsibility and ethical behaviors) were taught simultaneously. Researchers such as Boggs, Watson-Gegeo, and McMillen (1985), Au (1980, 1993), Gallimore, Boggs, and Jordan (1974), and Tharp and Gallimore, who studied the Kamehameha Early Education Program for Native Hawaiian (KEEP) children, repeatedly reported improved school performance for the participating students. KEEP included culturally relevant content and instructional techniques to teach Native Hawaiian students reading and language-arts skills. Among these techniques were building communities of learners in which students worked closely together in schools, as they were accustomed to doing in their home cultural communities, to help each other understand and master academic skills.

Learning communities also have been shown to be effective with high school and college students. For example, the Advancement Via Individual Determination (AVID) program used strong elements of communal identity, cooperative learning, and reciprocal
responsibilities in teaching college preparatory English curriculum to low-achieving African-American and Latino students. The program has had a significant positive impact on the participants' grade-point averages, performance on advanced placement tests, college attendance, and completion of degrees at four-year colleges and universities (Mehan, Hubbard, Villanueva, & Lintz, 1996). Similar striking results emerged from the Mathematics Workshop Program. It was initially developed at the University of California at Berkeley to help African-American and Latino students enrolled in first-year calculus to improve their successful completion of the course, and subsequently extended to other colleges and high schools in California and elsewhere. A distinguishing feature of this program was students working together in study groups with tutorial assistance. The study groups held meetings regularly in which the participants helped each other with their homework, and explained the processes they used in solving calculus problems. Talking through problem solutions with each other was the most salient feature in significantly improving the achievement levels of the students. Fullilove and Treisman (1990) attribute this success factor to its compatibility with the communalism that is evident in the cultures of Latino Americans and African-Americans.

While none of the community of learners programs cited here involved students identified as special education, it does not require a big stretch of the imagination to envision their applicability to special education programs for diverse learners. The transfer potential is located in the fact that these programs involved low-achieving, ethnically diverse students who often are at risk for identification as students with mild mental retardation, learning disabilities, and emotional/behavior disorders. Moreover, the
teaching techniques used in the programs were culturally familiar to the students and academically appropriate for improving their school achievement.

*Multicultural Curriculum and Culturally Congruent Instruction*

In addition to using culturally responsive climates and structural arrangements, multicultural curriculum and instruction are other essential components of culturally responsive teaching. Common sense, professional experiences, and research findings tell us that students learn better content that is familiar, has high interest appeal, is challenging, and is presented in ways that are linked directly to their prior knowledge and ways of knowing. Nor is it difficult to understand relationships among students' time on task, interest in learning and disciplinary behaviors, and the relevance of the curriculum and instruction they experience in both regular and special education.

This means that culturally responsive teaching for ethnically diverse students should include information about the histories, cultures, contributions, and experiences of different ethnic groups in all subjects. Skeptics may counter this suggestion with arguments to the effects that, "There is some content that students should know which can't be culturally diversified, such as math and science skills, or ancient history. Or, for that matter what is culturally specific about reading, writing, or being good citizens and workers." The answer to these challenges to culturally responsive teaching lies in what is taught, why, and how.

There is very little, if any, factual content that is taught simply for its own sake. In most cases, content serves an instrumental purpose in that it illustrates and transmits skills, principles, theories, concepts, ideals, values, beliefs, and generalizations. If the order of teaching were shifted so that the primary focus would be on these substantive
elements instead of the content in which they are embedded, then it would be easy to find entrees for the inclusion of multicultural education. A wide variety of ethnically and culturally diverse examples, scenarios, and vignettes would be used to embody and demonstrate the concepts, principles, skills, and ideas being taught. As an example, if war is really about cultural collisions and conflicts of power, then these concepts can be taught using samples of wars in any parts of the world and any time periods, without feeling obligated to use conventional teaching approaches to teach the first and second World Wars and the Civil War in United States History classes, thus promoting student interest, curricular relevance, and mastery of the content.

A student’s Individual Educational Plan (IEP) for improving reading comprehension should include samples of reading materials written by and about his or her own and other ethnic groups that can be used to identify, teach, practice, and demonstrate mastery of these skills. The Multicultural Literacy Program (Diamond & Moore, 1995) and the Webster Grove Writing Project (Krater, Zeni, & Cason, 1994) provide some instructive guidance on how to accomplish these changes, and the positive effects that may result from them. These projects used literature of African-, Asian-, Latino, and Native Americans to teach reading and writing skills to low-achieving students of color. The results were multidimensional and positive on all counts. Students improved their scores on state and district level standardized reading and writing tests; showed more enjoyment of and positive attitudes toward reading; read more frequently and with greater speed; had improved reading comprehension; had greater knowledge of different forms, structures, and uses of written language; wrote with more length,
cohesion, and clarity; and were more self-confident and positive about their own and others' ethnicity and culture.

Multicultural curriculum is a critical component of culturally responsive teaching. It is important for all students, but is even more imperative for students of color in special education, since their education is even more imperiled, in many ways, than their peers in regular education. However, a multicultural curriculum alone is not enough. Instructional quality, or pedagogy, is of greater significance, since instruction is necessary to activate the curriculum. The essence of culturally responsive pedagogy for ethnically diverse students is using multiple and varied culturally informed techniques in teaching African-, Asian-, Native, and Latino Americans.

Most of the instruction that is currently occurring in schools is shaped by and centered in Eurocentric cultural values and points of reference. This is a key reason why European Americans perform better than students of color in every category of achievement in every educational setting. Some Asian-Americans are exceptions to these trends, due to some elements of their socialization that are more compatible with mainstream school culture than those of other groups of color (Tong, 1978). Culturally responsive pedagogy simply tries to bring more equity to instruction by using techniques that are compatible with many different ethnic groups, especially those who are marginalized and disenfranchised in schools.

For the most part, cultural responsive pedagogy can be operationalized by matching teaching styles to the learning styles of different ethnic groups. Learning styles derive directly from cultural values, characteristics, and socialization. Teachers can match their instruction to students' learning styles only to the extent that they understand,
and then craft, their teaching to respond directly to the cultural characteristics and orientations of their students of color. Thus, the earlier discussion on building communities of learners among African-, Asian-, Native, and Latino American students make good pedagogical sense because a strong group emphasis, collaborative efforts, and a value of communalism are embedded in the cultures of their ethnic groups. Since cultural specificity by ethnic group is necessary to explain how matching teaching styles with learning styles operates in actual practice, and space does not allow for all groups to be addressed here, some examples for only African-Americans are presented to illustrate this principle and practice.

Research on African-American culture (Boykin, 1986; Gay & Baber, 1987; Kochman, 1981; Pasteur & Toldson, 1982; Smitherman, 1977) identifies core characteristics and values such as dramatic aestheticism, kinetics, relational, air and style, exuberance and energetic, dynamic, spontaneity, contextualism, verbal dexterity, affectivity, social orientation, and the integration of thought, feeling, and action. These emphases translate into learning-style features typically associated with field dependency (Hollins, King, & Hayman, 1994; Shade, 1989), which is characterized by preferences for social contexts for task performance; content related to human issues; general patterns and trends instead of concrete details; inductive reasoning; aural, visual, and tactile stimulation; talking over writing; performance demonstration of mastery of academic skills; and using a storytelling approach to communicate that is also known as topic-chaining (Au, 1993; Michaels, 1981). Given these characteristics, it is readily apparent why some African-American students who are functioning normally within their own
cultural frame of reference may be diagnosed as having language disorders, 
hypersensitivity, attention deficit, and learning disabilities.

A growing body of research over the last 30 years, provides supportive evidence 
that when teaching techniques are compatible with their learning styles, African-
American students who are having academic difficulties in school are able to reverse 
them and become easy, attentive learners, and high achievers. For example, Guttentag 
and Ross (1972) were able to expedite the mastery of simple concept learning, such as 
over, under, above, below, and behind, for four-year-olds by having them perform the 
behaviors associated with the concepts. Thus, the students crawled under and over a 
table when they were working on those respective concepts. Foster (1989) and Piestrup 
(1972) found that African-American students were able to better understand the concepts 
being taught and engaged more frequently and effectively in classroom conversations as 
their teachers' interjected more African-American discourse features (such as rhythm, 
shared background experiences, vocabulary, delivery, and metaphorical analyses) and 
nuances in their instructional explanations and illustrations.

Boykin and some of his colleagues at Howard University (Albury, 1992; Allen & 
Boykin, 1991; Allen & Butler, 1996; Boykin 1982; Boykin & Allen, 1988) have 
conducted a series of studies examining the effects of instructional compatibility with 
cultural characteristics on the academic achievement of African-American elementary 
students. The variables they studied include motion and movement, cooperative learning, 
novelty, frequently changed and varied formats in learning activities, and the inclusion of 
ethnic content in instruction. In all instances the results have been positive. When 
instructional strategies reflect the cultural values, traits, and socialization of African-
American students, their attention spans, quality of academic efforts, and achievement outcomes increase significantly. Although none of the students involved in these studies was enrolled in a special education program, there a strong likelihood that similar culturally responsive teaching techniques will be equally, if not more, beneficial for students with a disability. Although these examples reflects understandings of African-Americans, it stands to reason that such techniques will be effective for students of color from other ethnic groups sharing similar academic and behavior characteristics. These changes have merit, given that other attempts to reverse the achievement trends of students of color that are not culturally responsive are repeatedly ineffective.

In summary, teacher attitudes, expectations, and actions toward ethnically diverse students are powerful in determining the quality of the education they receive. The research has shown a relationship between culturally responsive teaching and the school achievement of students of color. The need for professional, well-trained, reflective personnel to work with and affirm students with special academic, cultural, or linguistic needs is alarming. Multicultural students with autism are not being educated as completely as they should be since they are denied opportunities to learn about their own and others ethnic and cultural heritages. These situations affect student in special education as much as they do in regular education, if not more (Gay, 2000).
Chapter 3: Research Design Methodology

General Perspective

This study investigated whether current teaching practices on multicultural students with autism demonstrate culturally responsive teaching. This researcher conducted a qualitative analysis by using observations and interviews to collect data from an urban school district in Western New York. Also, a self-assessment was given to the special education providers that targeted knowledge, skills, and beliefs in culturally responsive teaching. This chapter describes the research context, participants, methodology, instrumentation, procedure for data analysis used in this research study.

Research Context

The study was undertaken to respond to the following question: do current teaching practices on multicultural students with autism demonstrate culturally responsive teaching? The research was conducted in an urban school district in Western New York. The city population is 220,000 people. Sixty percent of the residents are African-American/Black or Hispanic. Fifty percent of the schools in the district are at 90% poverty or higher.

The urban school district in Western New York serves approximately 34,000 students in pre-K through grade 12 and additional 15,000 adult students in continuing education programs. It operates 39 elementary schools, 19 secondary schools, one adult/family learning center, and several alternative education programs. The ethnic makeup of the student population is 64 percent African American, 20 percent Hispanic,
14 percent white and two percent Native American, Asian, and other minorities. There are 35 different languages spoken within the student population. The urban district serves 5,500 students with special education needs. This accounts for 14% of the student population in the district which is 29% more than the average district in New York State.

This study took place at one elementary school in the urban school from Western New York. In order to protect the identity of the school and the participants of this study, the school will be referred to as the Dodge School. This school was chosen because it offers self-contained and inclusive opportunities for students with autism. Two self-contained classrooms with multicultural students with autism were examined. This study consisted of classroom observations conducted by the investigator, an inventory filled out by the participants designed as a self assessment, and interviews. Also, this school was identified as a model for the district when it comes to serving students with autism.

Research Participants

In order to determine the research participants it was necessary to gain the cooperation of the special education providers at the Dodge school. The researcher met with the school principal, who asked each of these providers to participate in the study. The research participants were special education teachers, teacher’s aides, paraprofessionals, speech and language teachers, occupational therapist, music teachers, and autism specialists who worked with multicultural students with autism at the Dodge school. All participation from the special education teachers or other special education providers was voluntary. The number of special education providers who participated in this study from the Dodge school was 15. An application for approval of the study was
submitted to the Office of Research, Evaluation, and Testing in the urban school district. Relevant research materials were discussed with administrators of the urban district and approval was given for the study. Other important factors that were examined with the participants were years teaching, training in autism, and training in diversity.

Methodology

This study used an event analysis approach in conjunction with classrooms observations, a cultural self assessment, and interviews. The first step was to fully describe the social setting that was studied. In this case, the social setting was two self-contained classrooms from the Dodge school district. The classrooms were selected because the students were multicultural and they were students who are autistic and identified as such for the purpose of receiving special education services. The researcher described the school social setting by using the methods set forth by Lofland (2003). Information was collected and reported in the following categories established by Lofland.

A. Participants: Who is here? How many and what are they. Differences, similarities. Include a look at pictures of faculty administrators on line or in brochures.

B. Settings: What is here? Art, sounds, pictures, awards.

C. Acts: What are people doing individually and for short amounts of time?

D. Activities: What are people doing in groups and how are they engaged?

E. Relationships: How are people interacting?

F. Meanings: What is the purpose of the activities, acts and relationships?
Also, the researcher examined each classroom from the methods set forth by Montgomery (2007) in defining a culturally responsive classroom. Montgomery (2007) defined culturally responsive classrooms as those that specifically acknowledge the presence of culturally diverse students and the need for those students to find connections among themselves and with the subject matter and the tasks the teacher asks them to perform. Montgomery identified five guidelines for teachers to follow when preparing their culturally responsive classrooms: (a) conduct a self-assessment to determine the knowledge base of self and others, (b) use varied culturally responsive methods and materials in the classroom, (c) establish classroom environments that respect individuals and their cultures, (d) establish interactive classroom environments, and (e) employ ongoing and culturally aware assessments.

**Instruments Used to Collect Data**

There are two research questions that this researcher examined:

1) Do classrooms with multicultural students with autism exhibit culturally responsive teaching?

This researcher used interviews and observations to obtain information in order to determine whether special education providers exhibited culturally responsive classrooms. The interviews were semi-structured. The focus of the observations was informed by categories described by Loftland (2003). Subsequently, data were reported in categories proposed by Montgomery (2007) for describing culturally responsive classrooms.
2) Do special education teachers who work with multicultural students with autism, exhibit skills and knowledge that demonstrate culturally responsive teaching?

Each participant completed a modified form of the Multicultural Education and Cultural Competency Assessment (MECCA, Boyd, 2002). The MECCA is a 50 question survey. This assessment was designed to gather information about the teacher’s knowledge, skills and beliefs regarding cultural responsive teaching. The responses include no knowledge at all or, almost no knowledge, somewhat knowledgeable, fairly knowledgeable, good amount of knowledge, and highly knowledgeable in the section that best reflects your knowledge about culturally responsive teaching. In the next set of questions on the MECCA, the responses to what best reflects your skills and implying techniques and cultural responsive teaching were no skills at all, almost no skills, some skill, fairly skilled, good amount skills, and highly skilled. In the section that pertains to what best reflects your beliefs, the responses were strongly disagree, disagree, somewhat disagree, somewhat agree, agree, and strongly agree. The researcher used semi structured interviews to obtain information as to whether the special education providers had knowledge, skill, and belief in culturally responsive teaching. Data derived from the MECCA were described and summarized.

Procedure for Data Collection and Analysis

Observations and semi structured interviews were undertaken to describe the ways in which classrooms exhibit characteristics of culturally responsive teaching. Based on the information obtained, interviews were described and summarized.

Simultaneously, the MECCA was used as a self assessment for special education
providers to determine their knowledge, skill, and beliefs on culturally responsive teaching. The entire procedure for data collection and analysis was informed by Loftland’s (2003) categories on describing social settings and Montgomery’s (2007) guidelines for describing culturally responsive classrooms.
Chapter 4: Results

The purpose of the study was to investigate whether current teaching strategies used with multicultural students with autism demonstrate culturally responsive teaching. Two research questions were examined: 1) do classrooms with multicultural students with autism exhibit culturally responsive teaching, and, 2) do special education teachers, who work with multicultural students with autism, exhibit skills and knowledge that demonstrate culturally responsive teaching?

This researcher is a professional service provider for individuals with autism with over ten years of experience. Additionally this researcher is an African-American with a child with Autism. Given the possibility that professional and personal life experiences could cause bias in the design and implementation of the study, the researcher relied on established and rigorous data collection methods. Further, the researcher employed a well established theory, already grounded in years of research, as the conceptual framework to report and analyze the results. The analysis of the survey, observations, and interviews were conducted by using Montgomery (2007) guidelines for culturally responsive classrooms. Montgomery identified five guidelines for teachers to follow when preparing culturally responsive classrooms: (a) conduct a self-assessment to determine the knowledge base of self and others, (b) use varied culturally responsive methods and materials in the classroom, (c) establish classroom environments that respect individuals and their cultures, (d) establish interactive classroom environments, and (e) employ ongoing and cultural awareness assessments.
The social setting was observed using the methods set forth by Lofland, (2003). Lofland’s methods for describing, documenting, and analyzing social settings have been used for over thirty years by social researchers as a methodology for analyzing complex social phenomenon. The approach has been validated and proven to be reliable when employed consistent with the techniques and processes developed by Lofland. Information was collected and reported in six categories as prescribed by Lofland: Participants, Settings, Acts, Activities, Meanings, and Relationships. The total data collection phase lasted six weeks.

Twenty-eight hours of classroom observations were conducted. Classroom A was observed for fourteen hours and twelve hours were spent in classroom B. Both classrooms were observed every day of the week. The total range of instructional and social activities was observed in both classes.

Participants

There were 20 participants working with the two self-contained autism classrooms at the Dodge school. Those participants included two full-time special education teachers, three full-time teacher’s aides, eight paraprofessionals, two autism specialists, and five other specialists who provided music, occupational, physical, art, and speech therapy. Classroom A’s special education teacher is Caucasian and came from a middle-class European American family and was raised in a monolingual English speaking home. This teacher was tenured and certified with over 20 years of experience. The special education teacher in classroom B was Caucasian, who came from a middle-class European American family, and was raised in monolingual English speaking home.
This teacher was not tenured and was not certified. In fact, this was the teacher’s first year teaching.

There was 112 total staff members employed at the Dodge school. Those staff positions include ESOL teachers, speech teachers, special education teachers, general education teachers, paraprofessionals, teacher’s aides, occupational therapist, specialist, administration, clerical, and custodial.

Setting

The Dodge school is located in an urban school district in Western New York. It is a K-6 building with 630 students. The racial demographics of the school are as follow: 44% African-American, 38% Hispanic/Latino, 16% white, 1% Asian, and 1% other. There are a total of 31 classrooms in the building. Seven of those classrooms are bilingual in every grade level. Six of those classrooms are bilingual classrooms that are integrated and have special education teachers.

General education students or transported on 15 regular school buses and special education on five small buses. There are two after school programs called RASA and Extended Day Club that focuses on nonfiction reading and writing in real world math. The core reading program is Houghton Mifflin. Grades K-6 follows the Dodge Instructional Frameworks which is a workshop-based model. The math program is investigations for K-12 and Connected Math for grades six. They are instructional music Magnet School.

The two autism classrooms were located upstairs in the northwest wing at the Dodge school. Both classrooms A and B were located on the back hallway. They were the last two classrooms on the hall. The lights in the hallway were dim. One of the lights
in the hallway flickered on and off. These classrooms are separated from the rest of the students in the school. The classrooms were very loud. There was significant movement between the students and the teachers. Students were jumping, running, and playing in the classrooms. The teachers were using hand over hand assistance trying to get the students to participate in the class activities. This researcher did not see many other students in this area of these two classrooms. There was music room located next to both of the self-contained classrooms. Instruments being played from the room could be heard in the autism classrooms each day of the observations. When asked why the classrooms were located in this area, one special education teacher responded “no particular reason it is just where we had space.”

Classroom A had six student desks spread throughout the classroom. The classroom was small and was cluttered compared to other classrooms in the building. Some students were seated at their desk and some sat at a table. There were no adult chairs in the classroom. The teacher sat in a child-sized chair. The bookshelves were on top of tables in front of the windows. The teacher explained that this was done because one of the students attempts to jump out the windows. There were a few books scattered across the floor and very few things on the walls in the classroom. There were two small computers and toys in the back of the classroom. The special education providers often reported that things were torn off the walls and books were destroyed on a constant basis and this is the reason why the classroom looked plain.

Classroom B was the larger of the two classrooms. However, it had fewer students than classroom A. Classroom B was similar to classroom A with tables and
student desks in the center of the room. The two computers and toys were in the front of the classroom. All of the students were confined to the right side of the classroom.

Both classrooms were classified as a 6:1:4 special education self-contained classroom. This means that up to six children to one special education teacher with four classroom aides or paraprofessionals and the students did not change classes. In classroom A, the six special education students were three African-Americans; two were Hispanics, and one Caucasian. The combination of support staff could vary at specific times. Four out of five observations in classroom A, a special education teacher, one teacher’s aide, and three paraprofessionals were present. One observation revealed a ratio of support staff that included one special education teacher, two teacher’s aides, and two paraprofessionals.

In classroom B, there were five students. Two were African-Americans, two were Hispanics, and one was Caucasian. The five observations had one special education teacher, two teacher aides, and two paraprofessionals present.

There were 18 females and 2 males. The racial identity of the special education providers were 16 Caucasians, 3 Hispanics, and 1 other. This information was taken from the Dodge school district. According to district officials, the Dodge school is the only school in the district from K-6 that has self-contained autism classes. The district will be adding a third self-contained autism classroom due to the increasing demand for autism services in this urban area.

Acts

The school mornings usually began around 9 AM when the buses arrived. As each student exited the bus, a teacher or aide grabbed each student’s hand to transition
them into the classroom. Most of the transitions were interrupted by the student’s interest in other areas on the way to the classroom. The special education teachers and their aides often voiced frustration about transitioning these students from place to place. One student was transitioned three different times. Each time the special education provider stated “he is going to have a behavior” Each time the student had to be brought back to the classroom kicking and screaming. The special education provider stated “I told you.”

In the classroom, the special education teachers and aides were using hand over hand assistance as their most employed instructional method. The special education providers placed their hand over the student’s hand to complete each task. The students wanted to focus on their own perseverations interest and not the task of the movement. The activities were scheduled depending on the days of the week and depending on what special education provider was present and or available. All of the students were assigned an area to sit. Some of the students were at tables and others were at desk.

The special education teacher usually tries to work with all the students in the class. However, this was a difficult task as disruptive behaviors occurred continuously. The special education teachers appeared to be the leaders in both classrooms as everyone would look to them to intervene in crisis situations. The majority of the time spent by the special education providers was on behavioral challenges.

The day ends at 3 PM with the transitioning of the students back to the bus. Each student was walked to the bus by their hand and placed on the bus in their seatbelts. Afterwards, the special education teachers met briefly to discuss the day with the students. The majority of the special education providers would express relief that the school day was over and no one was injured.
Fourteen of the fifteen special education providers interviewed at the Dodge school with little to no experience with autism prior to working in the classroom. The minimal educational standards set forth for teacher’s aides and paraprofessionals is a high school diploma with no experience in special education. According to one special education teacher, “a person can basically walk off the street into a classroom and work with student with autism.”

Activities

During the observations, there were very few group activities in, or outside of, the classrooms. Group activities were centered on the specials that occurred on Wednesdays. These specials consisted of art, music, and gym. The specialty teacher would enter the self contained classroom and focus on art or music for a period of about 30 minutes. Physical education was conducted in a gymnasium. The activities turned into individual activities as the students did not interact with each other. The special education providers stated their frustration with the specials because of the difficulty they had in transitioning the students from one area to another.

Although there were two self-contained autism classrooms right next to each other, the students never crossed paths. They did not share resources or classroom materials. The two special education teachers rarely communicate with each other. There was tension between the two classrooms. According to one special education teacher, “I am not sure if they no anything, but they act like they don’t want help.” Classroom A was perceived as a model for the district in teaching students with autism and the other class was not on that level. This was confirmed in a conversation with one
district official stated “we have one great autism class at the Dodge school and we are working hard to get the other class where it needs to be.”

Relationships

The special education providers demonstrated a power over relationship with the students. They were quick to intervene to correct student behavior. There were minimal peer to peer interactions in the classrooms. The majority of the time the special education providers were trying to keep the students away from each other. The special education providers had little trust in the district to provide them with resources. Both classrooms talked about having an ‘us verses them’ mentality. The classrooms would rely on the individual providers in the room and no one else. According to one special education provider, “the district is clueless on what we do; we have to support ourselves and the students.” Another special education provider stated, “We know the district and the administrators are not going to be able to do anything with all of the budget cuts.” The relationship with the special education providers and the parents was distant. Of those interviewed 8 out of the 15 special education providers stated that most of the parents contributed to the behaviors they see in the classroom.”

Meanings

Expectations for academic success were low. Of those surveyed 15 out of 15 stated the focus is on behavior and not academics. Although all of the special-education providers stated that there is a need for culturally responsive teaching, 9 out of 15 surveyed expressed concerns that it will be ineffective with these multicultural students with autism. According to one special education provider, “these kids don’t understand culture.” Another provider stated, “Most of these kids could care less about culture. They
just like to focus in on the things they like and to make sure their routine stays the same.”

In addition too, one provider stated, “adding culture to the process might complicate things we need to teach these students to function and behave in society.”

The special education providers did not demonstrate an understanding about autism. In many of the conversations overheard by this researcher, there seems to be the understanding that autism automatically means that the students are mentally retarded. Absent was training about autism. The special education providers demonstrated diminished expectations and expected monomial to no instruction given their limited understanding and their perception that the students were mentally retarded. Special education providers expressed frustration due to the lack of resources and training. The majority of them would like to seek help to provide quality services to the multicultural students with autism. As one special education provider put it, “we are more like day care providers, we watched kids while their parents are at work and we just want to return them home safe.”

Data Analysis and Findings

The theory to be used to analyze the social setting described is found in the writing of Gay and Montgomery. It is generally described as culturally responsive teaching. Gay (2002) stated that many students of color encounter race-related stress in schools and classrooms. They are bombarded with implicitly and explicitly stated racial prejudices and stereotypes on a daily basis, emanating from both society and schools. Such settings do not create conditions that are most conducive to the best academic and social performance. In fact, the reverse is true. Racial stereotypes have a strong negative effect on the academic achievement of the students whose ethnic group is the target of the
stereotyping. This researcher conducted a personal interview with Dr. Geneva Gay to examine culturally responsive teaching and to select questions from the MECCA that would establish baseline indicators for the responses of the special education providers. These questions were identified in Montgomery (2007) guidelines for culturally responsive classrooms. Montgomery (2007) identified five guidelines for preparing a culturally responsive classroom. These guidelines were used to examine the data collected from the two self-contained autism classrooms.

Conduct a self-assessment to determine the knowledge base. Out of 20 possible special education providers, 15 participated in the MECCA the self-assessment. Out of 50 questions in the MECCA this researcher with the assistance of Dr. Gay choose these ten questions as a report baseline. These are the responses to those questions. 9 out of 15 special education providers stated that they had no knowledge of methods to accommodate cultural and individual learning styles in the classroom. The self-assessment results are as follows:

- 9 out of 15 special education providers had no knowledge of various multicultural education models;
- 9 out of 15 special education providers had no knowledge of how to accommodate cultural learning styles in the classroom;
- 9 out of 15 providers had no knowledge of multicultural education goals, assumptions, or theoretical frameworks;
- 13 out of 15 special education providers surveyed stated that they have no skills in teaching cultural concepts and themes from different cultural viewpoints;
• 13 out 15 special education providers surveyed stated that their teacher preparation programs did not prepare them to work with multicultural students;

• 15 special education providers agreed that the home environment does have an impact on the child’s ability to achieve;

• 7 out 15 surveyed stated they disagreed that their cultural can influence their attitudes, beliefs, and behaviors;

• 8 out 15 stated that they agreed that being colorblind is a good strategy for working with multicultural students;

• 3 out 15 special education providers surveyed stated they have an understanding on how racism has affected multicultural people in the U.S.

*Use varied culturally responsive methods and materials in the classroom.* The Dodge school district has disproportionate representation of racial and ethnic groups receiving special education and related services. The curriculum did not acknowledge the cultural heritages of the students in the classroom. The Individualized Education Plan (IEP) is the standard form that documents the educational goals for each of the students in the classroom. Although 15 out of 15 special education providers surveyed stated the home environment impacts the academic success of the students, no one could state definitely that the parents were included in developing the plan. One special education provider stated, “We don’t really use the IEP’s with these kids.” This same special education provider went to the cabinet where the IEP’s were kept, pick up a folder and blew the dust off the cover and laughed. The special education teachers identified the lack of resources to provide a more culturally responsive classroom. These teachers are given $150 budget for the year to buy non curriculum materials.
Classroom A did not have any pictures or symbols that reflected the identities of the multicultural students. There were no meaningful symbols that were a bridge between home and the school experience. One special education provider stated that “It’s useless to put pictures up these kids will tear it off the walls.” There were some children’s books and videos placed on shelves. The television character Dora, the Explorer, was watched by a Hispanic student. Dora is a Hispanic character that teaches letters and numbers in Spanish. Music is also a big part of the show’s delivery. The researcher inquired about the language being spoken to the child at home. The special education provider responded “I think Spanish.” The special education provider went on to say, “All the kids like Dora.”

Classroom B looked like a traditional first grade classroom. There were numbers and alphabet posters on the walls. There were several drawings from the students from activities they participated throughout the year on the walls. There was no multicultural information, resources, and materials in any of routines observed.

*Establish classrooms environments that respect individuals and their cultures.* The classroom environments did not demonstrate visually that the special education provides valued diversity. There was no group strategies employed to enhance students’ achievement or to promote non like group interactions. There was no instructional materials valuing and promoting understanding culturally responsive teaching. The lessons did not feature any adaptations to accommodate the student’s strengths. The special education providers were unable to demonstrate the importance of community building and social decision making. The students were not given the opportunity to demonstrate their understanding of their culture identity. Thus, the special education
providers did not create an atmosphere of positive standards. Expectations for academic success were low.

*Establish interactive classroom environments.* The classrooms did not demonstrate a sense of interdependence and feelings of community in which students understood that their lives and destinies are intertwined. On the Dodge district website, the diversity initiative, states “We take advantage of different perspectives, act as role models so our students will emulate and help foster the learning process.” However, for example, the verbal creativity and story telling that is unique among some African Americans in informal social interactions was not acknowledged as a gift and contribution and used to teach writing skills.

*Employ ongoing and culturally awareness assessments.* The results of interviews conducted with the special education providers revealed that the Dodge school district provided diversity training to one out of the 15 surveyed. All 15 special education providers stated that they have no training within the last year. There were no formal culturally responsive teacher’s preparation programs in the district. Also, there was a complete lack of in service staff development initiatives to give the special education providers the knowledge about skills for teaching ethnically and culturally different students.

*Summary of Results*

The students in the two self-contained autism classes were not given the opportunity to acknowledge the legitimacy of the cultural heritages of different ethnic groups. The special-education providers were not able to build bridges between home and school experiences as well as between academic abstractions and social cultural
realities. The special-education providers have very little knowledge of instructional strategies that are connected to different learning styles. Students were not taught to know and praise their own and each other's cultural heritages. The Dodge school has been unable to incorporate multicultural information, resources, and materials in the classroom with multicultural students with autism.

These special-education providers demonstrated a "power over" relationship with the students instead of a "mutual teacher-student authority" relationship. Again, the providers were more focused on behavior than developing academic competence and self-efficacy. The providers demonstrated a belief that these students did not understand culture or that culturally responsive teaching would have little success in their academic process. The goals of culture responsive teaching are to relate personal growth to public life, as well as to develop strong skills, academic knowledge, habits of inquiry and a critical curiosity about society, power, inequality, and change. In the teacher-student relationship at the Dodge school, there was a failure to appreciate the existing strengths and accomplishments of the multicultural students with autism and a lack of knowledge to develop them further in instruction. This deficit model lowers academic expectations and limits supports for the students and their efforts towards academic achievement.
Chapter 5: Discussion

Introduction

This chapter presents a discussion of the results, interpretations, and implications of the findings and analysis set forth in chapter 4. Recommendations for future research and suggestion for improving practice are also provided. This study addressed two questions: 1) do classrooms with multicultural students with autism exhibit culturally responsive teaching, and, 2) do special education providers, who work with multicultural students with autism, exhibit skills and knowledge that demonstrate culturally responsive teaching? Ten questions from the MECCA were used as a self assessment for special-education providers. There were three areas targeted in the assessment: knowledge, skills, and beliefs in cultural responsive teaching. Observations and interviews were conducted based on Montgomery's (2007) cultural responsive classroom model. This model was used to explore culturally responsive teaching in two self-contained autism classes at the Dodge School. Information collected demonstrates that teachers do not use culturally responsive teaching strategies, nor do they have knowledge of such strategies or see their value.

Integration with Past Literature

Teacher knowledge about, and attitudes toward, cultural diversity are powerful determinants of learning opportunities and outcomes for multicultural students. Effective education for multicultural students must be culturally responsive as well as developmentally appropriate. This means teachers must use and recognize student
cultural orientations, background experiences, and ethnic identities as conduits to facilitate their teaching and student outcomes. This applies to students both in regular education and special education (Gay, 2000).

The more variance between student cultural, racial, ethnic, and intellectual characteristics and the normative standards of schools, the greater the chances their achievement will be compromised by low or negative teacher expectations. Multicultural children with autism are highly variant on the criteria of normalcy, and are subjected to more negative teacher attitudes, expectations, and behaviors. Differences that are most important for educational purposes (such as background experiences, perspectives, values, and cultural socialization) are not as readily apparent as physical traits. Therefore, effective teaching requires a deep knowledge and understanding of multicultural students that many teachers do not have, or do not value.

Several kinds of instructional reform are imperative to change existing teacher values and foster the required knowledge and understanding necessary for effective teaching. These reforms include: critical cultural consciousness, culturally responsive classroom climates, learning communities, and multicultural curriculum content and culturally congruent instructional strategies. Such reforms foster and support the implementation of culturally responsive special (and regular) education. Acknowledging and understanding the influence of race, culture, and ethnicity in teaching and learning, and using the cultural experiences, perspectives, traits, and contributions of different ethnic groups as instrumental tools for teaching academic and social knowledge, values, and skills to diverse students are absolutely essential. Culturally responsive teaching is a comprehensive endeavor that is engendered in all dimensions of the educational
enterprise, including diagnosing student's needs, curriculum content, counseling and guidance, instructional strategies, and performance assessment (Gay, 2000).

An appropriate Individual Educational Plan (IEP) for improving reading comprehension should include samples of reading materials written by and about his or her own and other ethnic groups that can be used to identify, teach, practice, and demonstrate mastery. The Multicultural Literacy Program (Diamond & Moore, 1995) and the Webster Grove Writing Project (Krater, Zeni, & Cason, 1994) provide some instructive guidance on how to accomplish these changes, and the positive effects that may result from them. These projects used literature of African-, Asian-, Latino, and Native Americans to teach reading and writing skills to low-achieving students of color. The results were multidimensional and positive on all counts. By using such programs, students improved their scores on state and district level standardized reading and writing tests. They showed more enjoyment of and positive attitudes toward reading; read more frequently and with greater speed; had improved reading comprehension; had greater knowledge of different forms, structures, and uses of written language. They wrote with more length, cohesion, and clarity; and were more self-confident and positive about their own and others' ethnicity and culture.

Multicultural curriculum is a critical component of culturally responsive teaching. It is important for all students, but is even more imperative for students of color in special education, since their education is more imperiled, in many ways, than their peers in regular education. However, a multicultural curriculum alone is not enough. Instructional quality, or pedagogy, is of greater significance, since instruction is necessary to activate the curriculum. The essence of culturally responsive pedagogy for ethnically diverse
students is using multiple and varied culturally informed techniques in teaching African-, Asian-, Native, and Latino Americans.

Most of the instruction that is currently occurring in schools is shaped by and centered in Eurocentric cultural values and points of reference. This is a key reason why European Americans perform better than students of color in every category of achievement in every educational setting. Some Asian-Americans are exceptions to these trends, due to some elements of their socialization that are more compatible with mainstream school culture than those of other groups of color (Tong, 1978). Culturally responsive pedagogy simply tries to bring more equity to instruction by using techniques that are compatible with many different ethnic groups, especially those who are marginalized and disenfranchised in schools.

**Implications of the Study**

Classroom teachers and other special-education providers working with multicultural students with autism at Dodge School District were the subjects of this study. Findings have significant implications for these practitioners. The findings reveal that at Dodge School, multicultural students with autism are not provided services or instruction consistent with any of the proven practices described in the literature. This is not by choice, but rather it is the result of a pervasive lack of knowledge and skills. Multicultural students with autism and their parents bring with them a set of rules that govern them and their particular culture. Similarly, teachers bring in a set of rules that govern them and their own culture.

The observations and interviews conducted in this study document the extraordinary need for professionals to consider cultural differences at every level of
instruction. This study implies that the potential exists that most students with autism are defined solely on the basis of their disability with little concern for their instructional, home or community environments. Data in the county where Dodge school exists, the state of New York, and the nation show that multicultural students with autism are congregated, segregated and isolated the majority of their school days. The two classrooms studied are exactly congruent with the types of settings normally reported. Given the pattern of these students removals found in the county, state and national data along with race and disability dimensions, it is reasonable to assert that the ineffective and culturally sterile classrooms in this study are not unique phenomena. Professional preparation programs for special education teachers, as well as in-service staff development, must be much more aggressive and diligent about including knowledge about and skills for teaching ethnically and culturally different students.

Equally as important the teaching profession, school administration, and families must demand that these students be served in culturally responsive, integrated and academically challenging environments. On behalf of these students, schools must be held accountable for failing to carry out such programs in the presence of well researched practices that are readily available and then hold teachers accountable for implementing these changes in classroom practice.

There is also an important social justice implication in these findings. The multicultural students with autism at the Dodge school are not being educated. They are being served by unqualified professionals, who have minimal understanding of autism, and less understanding of their multicultural needs. The Dodge school district is failing to meet its obligation to its students, parents, and teachers.
Limitations

This study was conducted as a case study of two classes in one building in a medium sized urban school district. Therefore, generalizing findings to other classrooms should not be done. However the district specifically identified these classrooms as the basis for "model services". As a result, it is reasonable to assert that other similar settings are unlikely to be qualitatively better now, or in the future. Data collection was conducted over a six-week period and no intervening variables were considered.

Recommendations

For schools. Recommendations for schools include:

1. The Dodge school district should reevaluate their criteria for placing teachers and other providers in special education classrooms with multicultural students with autism.

2. The district should hire external expertise to help develop a culturally responsive teaching model that could be incorporated into special education.

3. The culture of the deficit model must be eliminated in the entire district. Teachers must be retrained to focus on strengths instead of weaknesses when it comes to students with autism.

4. A comprehensive training curriculum must be developed on autism. The district must review its allocation of resources when it comes to self contained classes with students who are diagnosed with autism.

5. The Dodge school district should develop ongoing assessments on diversity to give educators opportunities to self reflect and deal with complex issues about diversity. It is very clear the majority of special education providers at the Dodge
school are desperate for successful teaching strategies to meet the needs of those multicultural students with autism. The level of conversation about culturally responsive teaching being incorporated into the special education process has been raised at the Dodge school.

*For the profession.* Recommendations for the profession include:

6. Teacher Preparation Programs need to be developed with focus on meeting the needs of all special education students and to give teachers the support they need in the classroom.

7. Colleges and universities must increase the content of coursework and student teaching to include the application of culturally responsive strategies throughout the preparation programs.

The need for professional, well trained, reflective personnel to work with and affirm students with special academic, cultural, or linguistic needs is alarming. Browell and Skrtic (2002) have linked the critical shortage of special educators to the increasingly competing and practical demands and political complexities of inclusive special education practices under the standards based reform framework of the Individuals with Disabilities Education Act of 1997 and the No Child Left Behind Act of 2001. This linkage is evidenced by the number of special education teachers (40%) that leave the field during the first five years of teaching (Kozleski, 2000).

*For researchers.* Recommendations for researchers include:

8. More studies need to be conducted to describe the content of instruction actually being provided in classrooms with multicultural students with autism.
9. Data must be collected to determine the extent of knowledge and skills that teachers and administrators possess and use in schools.

10. More research must be conducted to identify strategies that are demonstrably effective.

11. Additionally, although existing research emphasizes the importance of being sensitive to the family’s cultural context in order to provide effective services, more research is needed to understand how factors such as race and ethnicity impact learning on multicultural students with autism.

Culturally Responsive teaching calls for special education providers to create respectful, inclusive, and supportive environments that foster authentic learning communities. Such communities support a climate for teaching and learning that is purposeful and caring, and which instills a set of values grounded in the principles of tolerance, acceptance, and understanding. Special education teachers, who teach multicultural students with autism, should reflect on the ways they demonstrate their own philosophical and ethical codes of practice through classroom design and instructional practices.

**Conclusion**

Autism is a disorder present from birth or very early in childhood that affects social interaction, communication of ideas and feelings, imagination, and relationships with others (National Research Council, 2001). Most existing research focuses only on the disability and fails to look at the importance of culture. Such limitations may reflect a lack of awareness of cultural issues and the ways that these affect students with autism and their families. Such missing information may compromise the capacity of
professionals who work with multicultural students with autism (Obiakor, Wilder, and Dyches, 2004). Professionals who work with multicultural students with autism and their families should be concerned about the relative paucity of research specific to culture and the challenges they face. Research on autism within a cross cultural context and in developing countries has received very limited attention both from the fields of mental health and anthropology (Daley, 2002). The existing body of knowledge on autism was generated primarily in the United States and Europe; therefore it is uncertain whether its behavioral manifestations are consistent across different ethno-cultural groups.

Most of the research has categorized students with autism according to disability and failed to look at the importance of culture (Obiakor, Wilder, and Dyches, 2004). A child who has autism and who is culturally, racially, linguistically, and socio-economically different will likely require a special kind of assistance to effectively address these complex phenomena (Obiakor & Utley, 2001). School personnel need to recognize the label of autism is applied at varying rates to students from various multicultural groups. Professionals may interpret some behaviors symptomatically rather than culturally (Obiakor, 1999). Having considered behaviors in the cultural contexts, professionals need to make sure that the student is properly classified with autism. Professionals should be aware these behaviors could cause a multicultural student to be misidentified as having autism or a student with autism to be misidentified as having another disability.

Multiculturalism must be a focus of efforts to educate students with autism. If multiculturalism is not a focus, the possibility of misclassification and the potential for multicultural students with autism to interact appropriately with individuals in the
dominant culture increases dramatically. Therefore other professionals should attend to multicultural issues when identifying and teaching students with autism (Dyches, Wilder, & Obikor, 2001).

In summary, the goal of the present study was to examine: Do current teaching practices used with multicultural students with autism demonstrate culturally responsive teaching? The results of the data revealed that culturally responsive teaching is not being incorporated at Dodge school. The special education providers are immersed in a deficit model that has prevented these students from achieving their potential. The myth that multicultural students with autism do not have or understand culture must be confronted. This is why future cross cultural studies on multicultural students with autism must be completed.
References


Appendix A

INSTRUCTIONS

The application should be typed or clearly printed in block letters. Applications must have a brief summary of the study including: the research question(s), a description of the participants, a brief description of research methodology with copies of any and all instruments to be used (e.g., surveys, interview questions, questionnaires, checklists, observation sheets, psychometric assessments, etc.) attached, and a timeline. Completed applications (original copy) will be reviewed within seven days of submission. The second level review (per page 2) is conducted, and a decision rendered within 14 to 21 days of the request if documentation is provided. Incomplete requests will be returned without review, to the researcher for completion. Researchers will be notified by letter of approval or denial. It is determined that the research project does not meet Institutional Review Board standards or protocols.

Under some circumstances, protocols may be reviewed contingent upon the provision of additional information. "Approval pending" status will be noted. Under these circumstances, the additional information must be provided before approval will be given, and data are collected.

All completed research applications for review must be forwarded to:

Office of Research, Evaluation and Testing
Att: Research Approval
Rochester City School District
131 West Broad Street
Rochester, NY 14614

For any applications that are denied, an appeal letter (with the original application) must be forwarded to:

Att: Jon L. Collette
Chief of Research, Evaluation and Testing
Rochester City School District
131 West Broad Street
Rochester, NY 14614

1. General Information:
   (If you are not a student continue to Section II)
   
   Researchers Name:
   Researchers Address:
   Researchers Email:
   Current Date:
   Proposed Start Date of Research:
   Proposed Completion Date of Research:

   Title of Research Project:
   Would the information used in this Research Project be beneficial to the District?
   Yes
   No

   Signature of Faculty Supervisor
   Date

   Signature of Researchers
   Date

2. School Information (for students only)
   (If you are not a student please continue to Section III)

   School/College:
   Department/Program:
   Antihumanitas
   Business
   Education
   Math
   Science
   Other

   Faculty Supervisor's Name:
   Faculty Supervisor's Email:

   Title of Research Project:
   In the case of student research, the application should be reviewed and signed by the faculty supervisor. It is the responsibility of the faculty supervisor to ensure that students have properly completed this form.

   Signature of Faculty Supervisor
   Date

III. Required Attachments

1. Research Involves
   - Students
   - Parents
   - Staff
   - Teachers/Administrators

2. Please attach research questions.

3. Attach brief description of research methodology.

FOR INTERNAL OFFICE USE (ONLY)

Checklist:
- Application
- Research Questions
- Participant Description
- Description of research methodology
- Copies of surveys, interview questions, questionnaires, etc. (if applicable)
- Approved
- Denied

Reason(s) for Denial:

8 November 2007

RESEARCH APPLICATION & PROCEDURES

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Appendix B

February 25, 2008

Keith McGriff
368 Hampton Blvd
Rochester, New York 14612

RE: Approval for your proposal

Dear Mr. McGriff:

This letter serves as formal Rochester City School District approval for your proposed study, in satisfaction of your Doctorate, "Does current teaching practices on multicultural students with autism demonstrate culturally responsive teaching?" Please feel free to share this letter with your Research Subjects Review Board or any other appropriate party.

With nearly 200 outside research, survey and intervention requests per year, a number of specific criteria must be met in order to gain District approval for a proposal. Among them, it must tangibly benefit students, their parents, staff, or schools or departments. It must be supportable by the schools or departments impacted. Alignment with District goals is highly preferred. Your proposal meets all of these criteria. After careful vetting, your proposal has won the approval of key staff members in this area, Dr. Edward Yanssen and Andrew MacGowan, an achievement that signifies the worth of your proposed work. Please note this approval also covers your proposed survey, which we approve without modification.

Please continue to work with Mr. MacGowan and Dr. Gloria Sullivan of the Department of Research, Evaluation and Testing, my designee as liaison for your project. They can work with you to finalize any areas of this proposal should this be needed. We will be most interested in meeting with you once your findings are completed.

We wish you every success in your most worthy project.

Sincerely,

[Signature]

[Name]

C: Andrew MacGowan
   Jeannette Silvers
   Gloria Sullivan
   Edward Yansen
Appendix C

Letter to Participants

Keith McGriff
1531 Buffalo Rd.
Rochester NY 14624

Dear Participant:

My name is Keith McGriff and I am a doctoral student in the Educational Leadership program at St. John Fisher College. As part of the dissertation process, I am studying current teaching practices on multicultural students with autism. My study has been reviewed and approved by the Institutional Review Board at St. John Fisher College. Your participation in this survey would be greatly appreciated. All information collected is confidential.

Sincerely,
### Appendix D

**MECCA**

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**Cultural Competency Assessment**

Directions. Select the number that best reflects your knowledge about the area mentioned below. Use the following key:

- 0: No knowledge at all
- 1: Almost no knowledge
- 2: Somewhat knowledgeable
- 3: Pretty knowledgeable
- 4: Good amount of knowledge
- 5: Highly knowledgeable

1. **Methods to accommodate cultural and individual learning styles in the classroom.**
   - 0
   - 1
   - 2
   - 3
   - 4
   - 5

2. **Various multicultural education models.**
   - 0
   - 1
   - 2
   - 3
   - 4
   - 5

3. **Global perspectives and traditions of cultures different than your own.**
   - 0
   - 1
   - 2
   - 3
   - 4
   - 5

4. **The rationale and philosophy of multicultural education.**
   - 0
   - 1
   - 2
   - 3
   - 4
   - 5

5. **How diverse populations shaped, defended, and helped create the U.S.A.**
   - 0
   - 1
   - 2
   - 3
   - 4
   - 5

6. **Causes for international conflicts and the evolution of socio political philosophies.**
   - 0
   - 1
   - 2
   - 3
   - 4
   - 5

7. **Literary works from a variety of cultural, racial, and ethnic groups.**
   - 0
   - 1
   - 2
   - 3
   - 4
   - 5

8. **Federal and state legislation that affect the education of diverse populations.**
   - 0
   - 1
   - 2
   - 3
   - 4
   - 5
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<tr>
<td>10. How to identify cultural bias in teaching materials.</td>
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<td>11. How to discourage and confront children who use racial and ethnic slurs.</td>
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Cultural Competency Assessment

Directions for 12-25: Select the number that best reflects your skills in applying the techniques mentioned below. Use the following key:

0- No skills at all
1- Almost no skills
2- Somewhat skilled
3- Fairly skilled
4- Good amount of skills
5- Highly skilled

12. Cross-disciplinary teaching methods and strategies.
13. Different cognitive and learning styles to adapt to individual preferences.
15. Technology that is sensitive to cultural and individual differences.
17. Facts about cultural artifacts, events, groups, and other cultural elements.
18. Techniques for children to critique social and cultural issues.
19. Cultural concepts and themes from different cultural viewpoints.
20. Techniques to help children create plans of action to address social and cultural issues.
21. Distinguishing learning disabilities from linguistic or cultural differences.
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<th>Cultural Competency Assessment</th>
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<tr>
<td>22.</td>
<td>Teaching diverse children from different cultures.</td>
</tr>
<tr>
<td>23.</td>
<td>Establishing a rapport with children who are culturally different from me.</td>
</tr>
<tr>
<td>24.</td>
<td>Interacting with children who are culturally different from me outside of school and/or work.</td>
</tr>
<tr>
<td>25.</td>
<td>Responding adequately to cultural miscommunications.</td>
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</table>
Cultural Competency Assessment

Directions for 26-50: Select the number that best reflects your beliefs about each statement mentioned below. Use the following key:

0: Strongly disagree
1: Disagree
2: Somewhat disagree
3: Somewhat agree
4: Agree
5: Strongly agree

26. I'm not really cultural or ethnic, just normal.
   □ 0 □ 1 □ 2 □ 3 □ 4 □ 5

27. Interpersonal contact is not necessary to learn about different cultures.
   □ 0 □ 1 □ 2 □ 3 □ 4 □ 5

28. Race and ethnicity function as a barrier to learning in the classroom.
   □ 0 □ 1 □ 2 □ 3 □ 4 □ 5

29. Home environment has a impact on children's ability to achieve.
   □ 0 □ 1 □ 2 □ 3 □ 4 □ 5

30. Racism is basic and integral part of the U.S.A.
   □ 0 □ 1 □ 2 □ 3 □ 4 □ 5

31. My educational experience has given me sufficient training to interact with children from different cultures.
   □ 0 □ 1 □ 2 □ 3 □ 4 □ 5

32. Learning to teach means learning to deal with issues of race and color.
   □ 0 □ 1 □ 2 □ 3 □ 4 □ 5

33. Ethnic and racial differences have very little to with teacher/student interactions.
   □ 0 □ 1 □ 2 □ 3 □ 4 □ 5

34. My teacher education program taught me about how to deal with issues of race and color.
   □ 0 □ 1 □ 2 □ 3 □ 4 □ 5

35. The community has an impact on the ability for inner-city children to achieve.
   □ 0 □ 1 □ 2 □ 3 □ 4 □ 5
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<th>Cultural Competency Assessment</th>
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<tr>
<td>36. My cultural upbringing provided me with sufficient experiences to interact with children from different cultures.</td>
</tr>
<tr>
<td>37. Limited English proficiency will always make it difficult for certain children to achieve.</td>
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<tr>
<td>38. It's not important to be identified as a member of an ethnic or racial group.</td>
</tr>
<tr>
<td>39. I am comfortable with discouraging and confronting individuals who use racial and ethnic jokes or slurs.</td>
</tr>
<tr>
<td>40. I'm comfortable identifying myself by race or ethnicity.</td>
</tr>
<tr>
<td>41. Being colorblind is a good strategy for working with children of color.</td>
</tr>
<tr>
<td>42. I am able to analyze and describe my own cultural background.</td>
</tr>
<tr>
<td>43. I am comfortable telling someone that they have made a prejudicial or racist comment.</td>
</tr>
<tr>
<td>44. There are some cultural groups that lack basic skills and abilities to achieve in America.</td>
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<tr>
<td>45. I realize that there are shortcomings about the cultural understanding I experienced as a child.</td>
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<td>46. I participate in social action causes like human and civil rights activities.</td>
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<td>47. I am aware of how culture influences my own attitudes, beliefs, and behaviors.</td>
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48. I understand how people of color have been affected by racism in the U.S.A.

49. Sometimes I feel guilty about my cultural upbringing.

50. Ethnic groups should strive to be more American.
Appendix E

Interview Questions

1. Do you agree or disagree that culture influences the way children learn? Why or Why not?
2. Do you agree or disagree that your degree program or programs place an emphasis on developing a cultural relevant knowledge base? Why or Why not?
3. Are there training programs in the district that discuss culture diversity in the classroom?
4. Are there other supports the district offers to support teachers who work with multicultural students with autism?
5. Have you worked with a multicultural student with autism? If so what was that experience like.
6. Do you agree or disagree that the curriculum or IEP’s used in special education should be culturally relevant?
7. Do you agree or disagree that teaching strategies should include culture when teaching multicultural students with autism? Why or Why not?
8. Do current teaching strategies consider culture as a variable when teaching multicultural students with autism? If so explain.
9. Do you agree or disagree that the current curriculum or IEP process addresses the needs of multicultural students with autism?
10. Can you tell me about a time when you spoke with parents about a cultural issue in reference to their child?
11. Do you agree or disagree that cultural relevant materials in the classroom can create context in which multicultural students with autism can be successful? Why or Why not?
Appendix F

St. John Fisher College
INFORMED CONSENT FORM

Title of study: Does Current Teaching Practices to Multicultural Students with Autism Demonstrate Culturally Responsive Teaching?

Name(s) of researcher(s): Keith R. McGriff

Faculty Supervisor: Dr. Jason Berman Phone for further information: 585-957-5862

Purpose of study: The purpose of the study is to observe special education classrooms with multicultural students with autism. The focus will be to examine current teaching practices to determine if the cultural needs of these students are being met.

Approval of study: This study has been reviewed and approved by the St. John Fisher College Institutional Review Board (IRB).

Place of study: RCSD Length of participation: 2 months

Risks and benefits: The expected risks and benefits of participation in this study are explained below: There is no risk to the participants.

Information from this study could assist the RCSD in providing appropriate educational practices to multicultural students with autism.

Method for protecting confidentiality/privacy:
The MECCA survey is confidential and no identifying information will be used, therefore you can feel comfortable giving honest responses. All other information will be placed in a secure location and locked with this investigator having the only access.

**Your rights:** As a research participant, you have the right to:

1. Have the purpose of the study, and the expected risks and benefits fully explained to you before you choose to participate.
2. Withdraw from participation at any time without penalty.
3. Refuse to answer a particular question without penalty.
4. Be informed of appropriate alternative procedures or courses of treatment, if any, that might be advantageous to you.
5. Be informed of the results of the study.

I have read the above, received a copy of this form, and I agree to participate in the above-named study.

Print name (Participant)  Signature  Date

Print name (Investigator)  Signature  Date

If you have any further questions regarding this study, please contact the researcher listed above. If you experience emotional or physical discomfort due to participation in this study, please contact the Office of Academic Affairs at 385-8034 or the Wellness Center at 385-8280 for appropriate referrals.
Appendix G

Approval

From: Mosca, Jamie [jmosca@sjfc.edu]
Sent: Wednesday, January 30, 2008 11:15 AM
To: kmegriff@depaul.org
Cc: Berman, Jason
Subject: IRB Approval

Dear Mr. McGriff:

Thank you for submitting your research proposal to the Institutional Review Board.

I am pleased to inform you that the Board has approved the proposal entitled, “Does Current Teaching Practices on Multicultural Students with Autism Demonstrate Culturally Responsive Teaching?”

Following federal guidelines, research related records should be maintained in a secure area for three years following the completion of the project at which time they may be destroyed.

Should you have any questions about this process or your responsibilities, please contact me at 385-5262 or by e-mail to emerges@sjfc.edu.

Sincerely,

Eileen M. Merges, Ph.D.
Chair, Institutional Review Board

EM:jlm

Copy: OAA IRB
IRB: Approve exempt.doc
Appendix H

Special Education Demographics for School #28

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IEP students with Related service only

| Kindergarten | 6 Student (5 Gen) (1 Bil) |
| 1st Grade    | 6 Students (5 Gen) (1 Bil) |
| 5th Grade    | 1 Student (Bil. Vis. Impairment) |

| Home school Student | 0 Student |
| Total               | 13 Students |

1 Re-entry: 3rd RR-Bil.

Total number of IEP Students at this time: 101 03/10/08

504 Plans

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120