The Social Interactions Of Students With Disabilities In A 5th Grade Level Inclusive Classroom And The Effect On Academic Achievement

Estella Marshall-Reed
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THE SOCIAL INTERACTIONS OF STUDENTS WITH DISABILITIES IN A 5TH GRADE LEVEL INCLUSIVE CLASSROOM AND THE EFFECT ON ACADEMIC ACHIEVEMENT

by

ESTELLA MARSHALL-REED

DISSERTATION

Submitted to the Graduate School

of Wayne State University,

Detroit, Michigan

in partial fulfillment of the requirements

for the degree of

DOCTOR OF EDUCATION

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MAJOR: SPECIAL EDUCATION

Approved by:

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Advisor                                                     Date

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Approved by:

Advisor

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Date
DEDICATION

To my loving parents Melvin (deceased) and Sylvia Marshall for believing, supporting, and inspiring me to always do my best. My most sincere gratitude is to my loving husband. You've shown me kindness, support, and patience, especially when I needed it the most. You are my angel sent from above.
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“To dream anything that you want to dream. That’s the beauty of the human mind. To do anything that you want to do. That is the strength of the human will. To trust yourself to test your limits. That is the courage to succeed.”

Bernard Edmonds

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CHAPTER 1 Introduction

Overview of the Study

The idea of inclusion has grown immensely since the 17th century. This idea has its roots in the interpretive worldview (Watson, 2002). At the forefront of this viewpoint, humans were seen as active and changing beings. Earlier societies understood that in order to understand how children progress in a learning community, they had to look at the whole child, both in their social and academic environment (Watson, 2002).

The Wisconsin Education Association Council (2007) purports that inclusion can be defined as a process used to place students with special needs, to the greatest extent possible, in their least restrictive environment, which, in many instances, is the general education classroom. Many students with special needs meet their academic goals; however, their social interaction goals are not developed. Social interactions are a very important entity in the learning community, especially to permeate learning in an inclusive setting. Positive social interactions are imperative because they help to shape the lives of students with disabilities (Gresham, 1981).

Many educators promote positive interactions in the inclusive setting. However, the student with special needs often gravitates to other students with special needs to the teacher or to the paraprofessional (Broer, Doyle & Giangreco, 2005). The goal of inclusion is to integrate students with special needs into a general education classroom, to gain both socially and academically. Inclusion is both a philosophy and a practice. The philosophy of inclusion is the belief that all students with disabilities will grow both cognitively and socially, with the hope that all students will be an integrated part of the learning community (Dupree, 2006). The practice of inclusion has its roots in the
individuals with Disabilities Education Improvement Act (IDEIA), which mandates that all students with disabilities will be placed in their least restrictive environment.

**Purpose of the Study**

Many of the students involved in an inclusive setting range from kindergarten through high school. This study examined the social interactions of students with disabilities in a 5th grade level inclusive classroom and the effect on academic achievement.

**Location of the Study**

This research study took place in a large urban district, located in the Midwestern part of the United States, with more than 18,000 students. At the time of this study, there were 2,000 non-instructional and instructional employees. All of the schools in the school district were accredited by the North Central Accreditation Association. Many of the schools in the district were practicing inclusion.

The final dissertation consisted of five chapters. Chapter one was an overview of the study. Chapter two provided a review of the literature. Chapter three discussed the methodology used in this research study. Chapter four focused on the data collection method utilized, data analysis and findings. Chapter five discussed the results of this study as they related to the questions that guided the study and implications for future research.

**Historical Perspective of Inclusion**

The controversies surrounding inclusion have existed over the last several decades; however, the movement has been in a positive direction. The development of inclusion started in the late 1800’s with the establishment of institutionalizing children
with disabilities to, later, educating these same types of students in an inclusive setting (Sack, 1999).

Beginning near the turn of the 20th century and prior to, there were practically no schools in existence for students with disabilities. As a result of compulsory attendance laws, schools were held accountable for educating students with disabilities. The public school arena developed special classes for students who had different learning patterns than their peers. At this time schools were operating under the empirical paradigm which can be described as the factory model of education, with each student moving from class to class and grade to grade (Sack, 1999).

Over the next several decades, the education of students with disabilities did not contain any rules or structure which means that students with disabilities were subjected to the rules and policies of their local school districts. The districts were able to educate as they saw fit. By the 1950’s, students with disabilities remained in separate classes. Parents were becoming very vocal and had an interest in their child’s education. As a result of the Civil Rights Movement in the 1950’s and 1960’s, policymakers felt segregation was not in the best interest of students with disabilities (Sack, 1999).

Zelitti (2003) states the Civil Rights Movement was another entity that contributed to the steady movement of education towards inclusion. In 1954, the court case of Brown V. Board of Education of Topeka, Kansas, overturned the Plessey V. Ferguson decision which declared that “separate but equal” was unconstitutional. In the Brown V. Board of Education decision, the courts ruled it was discriminatory to provide an unequal education to Black and white students. This case introduced the
idea of integration which was upheld in the 14th Amendment, the Equal Protection under the Law act. This case was the turning point not only for African Americans, but also for other minority groups that had experienced discrimination, such as people with disabilities. This case helped to define the concepts of mainstreaming or educating students with disabilities in a general education setting and helped lead to the determination that separating students was not legal (Brown v. Board of Education 1954, as cited in Whitbread, 2007).

Prior to 1975, all students with disabilities were not receiving services in the general education setting; however, even more alarming is that those children with more severe disabilities were still in institutions. PL 94-142, the Education for All Handicapped Children Act (EHCA) which was passed in 1975, mandates that all students with disabilities should be educated in a setting that is considered the least restrictive environment for learning. This law gave entitlement to students with disabilities. Each child has a right to a free and appropriate education. This law is the foundation for the current special education rules and policies. This law also required that each student with a disability have an individualized education plan.

Since its passage in 1975, the Disabilities Act has brought tremendous benefits. Today, children with disabilities enjoy their right to a free appropriate education. “The Disabilities Act substantive rights and procedural protections have produced significant and measurable outcomes for students with disabilities: Their graduation rates have increased dramatically, and the number of these students who go on to college has almost tripled since 1978” (Losen & Orfield, 2002, p. 1). This act paved the way for
special needs children to have the opportunity to be educated in inclusive settings with their peers.

**Contemporary Perspective on Inclusion**

In 1990, Public Law 94-142 was changed to PL 101-476, the Individuals with Disabilities Act (IDEA), which included the first person language. All disabled persons were considered first and the disability second. Two categories were added: autism and traumatic brain injured. A transition plan was required for students 14 years and older. This act defined related services and outlined the procedures for inclusion.

In 1997, the Individuals with Disabilities Education Act was amended with added principles, such as:

1. Students with disabilities should have exposure to general education curriculum, whenever possible

2. All students are required to participate in state assessments.

3. School districts have more options when determining discipline issues (IDEA 2004, as cited on the Council for Exceptional Children Website, 2008)

In 2004 the Individuals with Disabilities Education Act (IDEA) was revised. This law creates an atmosphere that decreases the amount of students identified for special education services. Instead of solely using Intellectual Quotient (IQ) scores to identify students for special education services, facilitators of education are now faced with determining students’ strengths and weaknesses and creating instructional lessons that supports this change (IDEA 2004, as cited on the Council for Exceptional Children Website, 2008).

Today, educators are trying to determine how students will best benefit from services in the inclusive setting in order to enhance their academics and social
interactions. The National Education Association (1992) reports that three out of four students with disabilities spend the majority of their day in an inclusive setting; therefore, with this realization, many school districts are providing training and professional development to meet this need to enrich the student’s academic and social skills (United States Department of Education, 1992).

Although the Individuals with Disabilities Education Improvement Act (IDEIA) of 2004 and No Child Left Behind do not use specific wording of inclusion, they do align and support the principles of inclusion. Giangreco (2007) states that “These laws presume that the first placement option a school system must consider for each student with a disability is the regular classroom setting” (Giangreco, 2007, p. 34). These laws demand that students with disabilities have exposure to the general education curriculum. Every effort must be made to take support to the general education setting. Students with learning and social differences are now assessed alongside their non-disabled peers.

**Historical Perspective of Social Interactions and Inclusion**

Many of the ideologies of the learning theories of today are deeply rooted in the theories of the past, such as those set forth by Jean Piaget (1896-1980), John Dewey (1916), Lev Vygotsky (1962 & 1978), Albert Bandura (1977), and the Brain Based Learning Theory (1983-2001), which all have contributed to the understanding of the social processes in education.

Jean Piaget’s (1896-1980) ideas were fully developed in Europe but did not play a significant role in the United States until the 1970’s and 1980’s. Piaget’s theory of cognitive development was a major force in the study of cognition, which essentially
meant that Piaget opened the doors for the Cognitive Revolution (Watson, 2002). The cognitive theory has its roots in the organism worldview of Rousseau (1712-1778); however, though it developed from the mechanistic approach of John B. Locke (1632-1704), it was essentially a part of the empirical paradigm. Piaget created an idea of “genetic epistemology”, which is “the study of knowledge and how we develop what we know” (Watson, 2002, p. 88).

John Dewey (1916) focuses on connecting learners through the social processes of education. His theory of learning centers on reflection, experience, interaction and democracy in the classroom. Dewey believes that education should be an avenue that allows students an opportunity for growth by utilizing critical thinking and problem solving skills. Dewey iterates facilitators of education must incorporate the student’s past experiences into the present learning situation for learning to occur. He believes that the actual interest of the student must be assessed and incorporated into the learning situation. He believes that students withdraw from the educational process or become passive recipients of knowledge if learning does not encompass their experiences. Dewey believes that learning which concentrates on the collection of isolated facts, skills and processes, ignores the crucial impact of each individual’s social experiences. The student must engage in real-life experiences such as hands-on activities, projects and active learning (Dewey, 1916).

Lev Vygotsky (1962) was a notable Russian psychologist in the early 1930’s. His theory is linked to the social nature of learning. In his book *Mind in Society*, Vygotsky emphasizes the notion that all learners are not simply passive recipients but are born with tools to assist in their growth on a continuum of socialization. Vygotsky believes
that development cannot be separated from its social context. Vygotsky notes three active elements needed to ensure learning takes place: active learners, active teachers and active social environments. All three elements must come together in the classroom allowing students to relate to or, at least, become aware of their own and their peers’ thinking. Vygotsky generates three specific ideas:

- Culture by means of which the students develop cognitively through social interactions. He believes learning cannot be developed autonomously by the student, but through social interactions with other students.

- Language as an indication of the student’s learning abilities, which can be emphasized in three stages: social speech, by means of which children display the need to belong.

- Ego-centric speech by means of which children learn to speak in order to become part of their environment. Inner speech by which means children begin to internalize thinking. Vygotsky developed the principle of the Zone of Proximal Development (ZPD) which emphasizes that a child’s development level is accomplished when is engaged in social behavior. ZPD highlights two principles: Cognition is based upon a range at any corresponding age. Cognitive development is based upon social interactions (Vygotsky, 1962).

Albert Bandura (1977) in his social learning theory emphasizes that most human behavior is learned by modeling and observing. Bandura believes it is almost impossible for people to learn without cognitive, behavioral and environmental
influences from others. Bandura, in his book *Social Learning Theory* he highlights the importance of observation in a setting. This process outlines attention, retention, motor reproduction, motivation and observer characteristics. There are several important principles involved in the social learning theory such as the idea that the maximum amount of observational learning is gained by practicing and imitating behaviors. People will practice a modeled behavior if it has positive results for them. People will practice a modeled behavior if it has some importance for them.

**Background to the Problem**

Social interaction is a very important entity in the educational process of students with disabilities. Teaching students with special needs how to interact appropriately with their non-disabled peers has become one of the most important parts of the educational experience, especially with the establishment of inclusion. Years ago, students with disabilities were looked upon as being mentally ill or imbeciles, and considered incapable of having or building positive relationships with their peers. In most instances these students were institutionalized (Sack, 1999). PL 94-142, (1975) the Education for All Handicapped Children Act (EHCA) provided a framework for special education as we know it today. One of the major components of this law requires the placement of special education students into their least restrictive environment. In order for students with special needs to be successful in the regular education classrooms, appropriate interaction skills must be addressed.

**Problem Statement**

The need to facilitate positive interactions between students with disabilities and their non-disabled peers has become increasingly important because of school districts
moving toward inclusion. Positive social interactions in an inclusive environment have become one of the most important panaceas that allow students with disabilities to achieve academically. In many instances, these students with disabilities have never been involved with their general education population; therefore, there is an absence of positive relationships.

**Overview of the Methodology**

The research questions that guided this study are as follows:

1. What social interactions do students with disabilities have with their general education peers?
2. What social interactions do students with disabilities have with their teacher?
3. What social interactions do students with disabilities have with their special education peers in an inclusive classroom?
4. What impact do social interactions have on the student’s academic achievement in an inclusive classroom?

This study utilized a qualitative ethnographic design with a case study format. The researcher examined the social relationships that existed between special education students and their non-disabled peers and teachers in an inclusive setting and the impact these relationships have on their academic achievement. The methodology used in this study described the four basic components of a qualitative ethnographic research design described by Maxwell (2005).

1. "The research relationships that you establish with those you study
2. Site and participant selection: what settings or individuals you select to observe or interview and what other sources of information you decide to use
3. Data collection: how you gather the information you will use
4. Data analysis: what you do with this information in order to make sense of it” (p.82).

Maxwell (2005) stated that the relationships you create with your participants in your study are an essential part of your methods and how you initiate and negotiate these relationships are referred to as “gaining access” to the setting (p. 82).

Definition of Terms

The following operational terms utilized in this study are as follows:

**Inclusion**
Can be defined as educating students with disabilities in the general education classroom to the greatest extent possible with their non-disabled peers. The words *disabled, special education students* and *special needs students* will be used interchangeably in this study.

**Full Inclusion**
Placement of students with disabilities in a general education classroom for a full day.

**Part-time Inclusion**
Placement of students with disabilities in a general education setting for a portion of their day.

**Non-disabled Students**
General education students with no identified disabilities.

**Social Interactions**
Interactions of the students in an inclusive learning environment.

**Disabled Student**
Student who has been evaluated and determined to be eligible to receive special education services and have a disability.

**Student with special needs**
Used interchangeably with the words disabled student.

**Mainstreaming**
Educating students in a general education setting.
**Individuals with Disabilities Act (IDEA)**
Revision to PL 94-142: This law has had the single greatest effect on special education. It outlines current policies in special education.

**Least Restrictive Environment (LRE)**
Students with disabilities are educated in their least restrictive environment to the most significant extent.

**Compulsory Attendance**
Laws governing mandatory school attendance for all students including students with special needs.

**Empirical Paradigm**
A philosophy of education based upon the teachings of John Locke. It was during this phase that people were seen as machines comprised of units and compartments.

**Civil Rights Movement**
A period in the 1960’s that emphasized rights for people of color, which contained many laws and court cases that paved the way for special education

**Brown V. Board of Education**
Courts ruled it was discriminatory to provide an unequal education to Black and white students

**PL 94-142**
The Education for All Handicapped Children Act (EHCA) was passed in 1975; it mandates that all students with disabilities should be educated in a setting that is considered the least restrictive environment

**Individualized Education Program**
A written document outlining the objectives, services and resources that special education students should receive

**Plessey V. Ferguson**
A court ruling that upheld the notion that separate educational facilities were Constitutional

**Interpretive Worldview**
How people internalize their social environment and express it externally
Chapter 2 Theoretical Framework

Proponents and Opponents of Inclusion

In an inclusive classroom setting, educators support and meet the needs of all learners by providing an atmosphere that emphasizes diversity, support, building positive relationships and learning communities. Years ago, the debate concerning inclusion centered on the benefits of placing students with special needs in an inclusive environment (Thousand & Villa, 2003). In opposition to this type of program are pull-out programs such as resource rooms, where the students spend a portion of their day in a special education classroom or basic classrooms where students are in a special education classroom for the majority of their day, except for specials, such as gym, art and music. Today, the debate appears to be more succinct and centers on the importance of whether social interactions play a significant role on academic achievement in an inclusive classroom.

There are both proponents of and opponents to the idea that social interactions play a significant role in the academic and social performance of students with special needs in an inclusive environment. Opponents to inclusion believe that students with special needs are best educated in a self-contained environment with other special needs students. Proponents of the idea of inclusion believe this practice assists with the development of academic as well as social interaction skills. Opponents of inclusion point out those proponents in favor of inclusion demand special services but not in a special environment. Shapiro (2003) states that when the general education teacher suggests special needs students are unable to get their needs met in the classroom, proponents of inclusion complain that they are “inflexible, providing a one size fits all
teaching method” (p. 2). Many parents are elated over the prospect of having their child educated in a general education environment as this addresses the idea of normalization (Orelove & Power-deFur, 1997). Parents have hope of their children being educated alongside their non-disabled peers.

“Before Congress passed the Education for All Handicapped Children Act of 1975, now known as the Individuals with Disabilities Education Improvement Act (IDEIA), many children with disabilities were not receiving a public education” (Losen & Orfield, 2002, p. 1). Of the special needs children who were being educated in public schools, many were placed in substandard environments, often run-down classrooms, located in the least desirable places within the school building, or sent to entirely separate facilities. Since its passage in 1975, the Disabilities Act has brought tremendous benefits. Today, children with disabilities enjoy their right to a free appropriate education. This act prepared the way for special needs children to have the opportunity to be educated in inclusive settings with their peers.

**Proponents of Inclusion**

Many proponents of inclusion believe it is advantageous for children with disabilities to be integrated and that inclusive programs help them become ready for life in society. Gartner & Lipsky (1998) suggest that children with special needs display increased positive social interactions in an inclusive environment, especially when teachers hold them to the same standards as their non-disabled peers. The concept surrounding the integration of students has been a huge educational issue for decades in the public school system, as in the case of Brown V. Board of Education, which highlights the philosophy of integration. Rothstein (1990) purports that, although this
case dealt with civil rights issues, it helped define the concept of mainstreaming or educating the handicapped child in the regular classroom as much as possible and helped lead to the determination that separation of children was unjust. In 1966 and 1970, Congress started programs as an incentive for providing special education. In the mid 70’s millions of students with disabilities were not being educated with the non-disabled population (Rothstein 1990, as cited in Zellitti, 2003).

The Wisconsin Education Association Council (2007) states that, in the case of the Sacramento City Unified School District V. Holland, 1994, the Holland family wanted their daughter placed full-time in a regular education classroom. Their local school district wanted to place the child half-time in a special education classroom and half-time in a regular education classroom. The courts ruled in favor of the Holland family stating that the regular education placement was the most appropriate setting because even if the student was not going to reap any academic benefits, non-academic benefits must also be considered. Adams, Affleck, Lowenbraun, Madge (1988) reports recent literature supports the idea that when students with special needs and their general education peers are given opportunities to interact in a general education environment, the interactions are greater than in a segregated classroom and this idea is affirmed at all grade levels. By providing more opportunities this could lead to social competence and communication skills. “Many studies show improvement in the area of social skills and communication, which is to be associated with participation in an inclusive educational program” (Adams et al. 1988, p. 28).

McLaughlin, Rea & Walter-Thomas (2002) states studies have shown there is a connection between placement in an inclusive environment and pull-out special
education programs and academic achievement and social outcomes of students with learning disabilities. These studies suggest a positive trend when students are integrated into general education classrooms. Inclusion is least expensive and, in most instances actually helps to save money. Students with special needs were originally not assumed to benefit from inclusion because of their extremely unique behaviors and outcomes directly linked to their non-disabled peers and social interactions.

Allington (1994) states labeling can have a negative effect on students with disabilities. Such labels as “the hard to teach and the hard to reach” have plagued special needs students and excluded them from the general education program (p. 7). Studies show that students with more severe disabilities who take part in general education classes show some academic increase and behavioral social progress. Parents have reported that their children with more severe disabilities, placed in general education classrooms, were able to learn material from the general education curriculum (Adams, et al. 1988).

Students with mild to severe disabilities are being educated in an inclusive setting with their non-disabled peers. Cook (2001) reports that an increasing number of students with disabilities have been placed in inclusive settings (Henry, & Hodges, McClesky, 1988, as cited in Cook, 2001).

Indeed the proportion of all students with disabilities in the United States who were included spent greater than 79% of a school day in a general education classroom rose from 31.46 in 1989/1990 to 43.5% in 1995/1996. Moreover, inclusion rates increased for students with both mild and severe disabilities. For example, the 1998 Annual Report to Congress reported that the proportion of students with learning disabilities (LD) and multiple disabilities who were placed in inclusive environments increased from 20.7% to 42.4% and from 5.9% to 9.5%, respectively (U.S. Department of Education, 1998, as cited in Cook 2001).
Opponents of Inclusion

Alan Dyson (1997) believes the inclusion movement has taken the educational process backwards. He makes the argument as to whether inclusion is meant to reform education or is it a deterrent to mask the large number of students who are disenfranchised, disadvantaged and alienated within normal schools. Dyson believes allowing students with special needs the opportunity to be educated along-side their non-disabled peers is not productive and hinders the education of the latter (Alan Dyson, 1997 as cited in Educationalist Gloucestershire, 2006).

Peck & Staub (1995) state some parents are concerned inclusion will decelerate the academic program of students without disabilities in an inclusive setting. Many teachers are concerned over the government's policy of social inclusion. They believe that youngsters identified as behaviorally and emotionally disabled will not be provided with the necessary supports to be successful. Some educators are in favor of bringing students with special needs into the general education setting; however they want assurance that the appropriate assistance will be provided to these students. (Association of Teachers and Lecturers Press Release, as cited in Educationalist Gloucestershire, 1997). There are opponents to inclusion who support “special education students in resource rooms, special education classrooms, or other more restrictive environments” (Inclusion: The Pros and Cons, 1995).

Opponents to inclusion believe labeling students as special needs is not “bad” but in most instances, is necessary to achieve the optimum services required to make such students successful. The opponents' basic premise is that special needs students are distinctly different from their non-disabled peers (Inclusion: Pros and Cons, 1995).
Huebert (1994) reports that opponents to the integration movement believe that students with disabilities should be educated in special education settings. The opponents to inclusion offer the following ideas:

1. Special education teachers have higher expectations for their students
2. Special education curricula are appropriate for their intended students.
3. Individualization is more likely to occur in smaller classes with specialized teachers than in the regular classroom.
4. Regular teachers do not want special needs students in their classrooms.
5. Students with disabilities have never been well-served in regular education and there is nothing to indicate that teachers are any more able to deal with them now than they were previously (Huebert 1994, as cited in Inclusion: The Pros and Cons, 2009, p. 2).

Tornillo (1994), president of the Florida Education Association, points out that not everyone is elated over the push for inclusion. His concern is that inclusion is too often being implemented in districts and general education teachers are not being properly trained to teach students in their classrooms. As a result, the students with special needs are not getting the one-to one care as laid out in their specific Individualized Education Plans. Tornillo (1994) states that, in light of the state mandates for higher standards and to improve achievement, inclusion does not make sense. He believes that by increasing the range of academic abilities within the classroom, educators have to provide a great amount of attention to the students with special needs; as a result it is seemingly impossible to accomplish the demand for responsibility and the fulfillment of greater scholarship (Tornillo, 1994, Inclusion: The Pros and Cons, 1995).
“The American Federation of Teachers (AFT) in West Virginia led a poll, and the results indicated that 78% of educators think that inclusion will not have positive results for students with special needs and general education students simply don’t benefit either” (Leo 1994, as cited in Inclusion: The Pros and Cons, 1995, p. 22).

Educators in a rural area participated in a study to measure the achievement of social and academic goals in an inclusive environment. The study used the “socio-metric assessment procedure” (Smoot, 2004). The participants of the study included 61 students with special needs and 286 general education students. The findings revealed that a little more than 40% of students with special needs were considered by a general education classmate as a buddy while twice as many students who were not identified as receiving special education support was selected as a buddy (Smoot, 2004).

Administrators in rural areas are often plagued by lower funding for their school districts. Many fear the effectiveness of an inclusive environment. The big issue for these school districts is whether inclusion is meeting its objectives. Rural teachers do not feel prepared to teach to a much larger group of learning needs with allotted class time (Boyer 1997, as cited in Smoot, 2004). Teachers in rural areas are confronted with another issue concerning inclusion: These inclusive programs can be too costly. The concern is that two teachers in one classroom providing services are too expensive, which results in two teachers on the school district payroll (Bryant, et al. 1999, as cited in Smoot, 2004).

Opponents of inclusion point out those proponents in favor of inclusion demand special services but not in a special environment. Agne (1998) points out there is no
justice in education and that schools have begun to place all students together in the
same classroom without regard for individualized needs. She further contends that
including students with special needs in a general education setting promotes the idea

Behavioral, Cognitive, Social-Psycholinguistic, and Brain Based Learning
Theories’ Impact on Inclusion

Kayale (2000) purports that “Inclusion appears to be not something that simply
happens, but rather something that requires careful thought and preparation” (p. 23).
The controversies surrounding inclusion have existed over the last several decades.
However, the movement has been in a positive direction. The development of this
trend started in the 1800’s with the establishment of institutionalizing children with
special needs to, later, educating these same types of students in an inclusive
environment. The gradual growth of inclusion can be credited to the behavioral,
cognitive and social-psycholinguistic theories which have helped to shape its’ current
existence (Kayale 2000, as cited in Zellitti 2003).

Behaviorist Theory

Watson (2002) states that when industrialization began, so did the field of
behaviorism psychology. This theory is grounded in the early worldview of mechanism,
which was developed by John Locke (1632-1704) and moved forward to the work of
B.F. Skinner (1904-1990). The behaviorist theory has its roots in the mechanistic
approach which occurred simultaneously in the empirical paradigm. The main focus of
this approach centers on human beings and their interactions with the environment.
John Locke’s theory compares human beings to machines. Locke believes that human
beings are “passive, reactionary humans, just like machines” (p. 34). Human beings react only to stimuli from the external environment. The mechanistic worldview held the belief that humans could be broken down into their individual parts like machines. John Locke believed humans were “Tabula Rasa” that humans are born with a blank slate and the environment impacts them (Watson, 2002, p. 34).

Ivan Pavlov (1849-1936) contributed extensively to the behaviorist theory. Pavlov’s work centers on the gastric functions of dogs. Experimenting with animals became the forefront of this theory. Pavlov is credited with the Laws of Classical or Operant Conditioning. Pavlov, in his experiment, paired dogs with an unconditional stimulus (food) with a neutral stimulus (a ringing bell) after a number of trials; the unconditioned response becomes conditioned to the bell (See figure 2:1). Pavlov’s contribution to the field of Behaviorism is the stimulus-response model. This stimulus-response model is used in later behaviorist thought (Watson, 2002).
Edward Thorndike’s (1874-1949) behaviorist methodology is closely related to Pavlov’s theory; however, he completed experiments with investigations of animal intelligences. Thorndike’s “Puzzle Box” (See figure 2:2) experiment helped him to develop the three laws of behavior which are: 1. “Law of Effects, which states that habits can be strengthened or weakened by the nature and frequency of the stimulus-response pairings, through trial and error”. 2. “Law of Readiness, which contains a series of responses chained together to satisfy some goal, which will result in annoyance if blocked”. 3. “Law of Exercise, connections become strengthened with practice and weakened when practice is discontinued”, (Skinner, 1953).
John Broadus Watson (1874-1958) believes that the study of behavior should center on the connection among the catalyst in the setting and a human’s conduct and demeanor, and not mindless occurrences pertaining to inner perceptions (Watson, 2002). In J.B. Watson’s “Little Albert Experiment” he believes that children have three basic emotional reactions: “fear, rage, and love” (See figure 2.3). Watson’s objective was to prove that these emotions can be conditioned in children. Watson offers several “tasks associated with behaviorism, observation, making predictions, and determining a causal relationship” (Raynor & Watson, 1920).

**Figure 2.3. Three Basic Emotional Reactions**

<table>
<thead>
<tr>
<th>Fear</th>
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<tr>
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</table>

<table>
<thead>
<tr>
<th>Rage</th>
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<tr>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Love</th>
</tr>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>

Hall and Schell (1983) state Skinner’s theory of behaviorism centers on the environmental consequences that determine and maintain individual’s behavior.
Skinner believes that people are born with a certain genetic inheritance, such as reflexes, responses and motivational states that are set in motion. Skinner is concerned with showing how behavior can be modified or changed by the environment. Skinner believes that a person’s behavior can be “shaped” in order to get a certain behavioral response. Skinner’s most notable contribution to the field of behaviorism has been schedules of reinforcement, continuous, interval and variable. Skinner’s techniques have had an impact on the schools and institutions, such as the token economy system, where the student is reinforced for appropriate behaviors by receiving a token. The behaviorist theory was the predominant theory in the study of child development until the 1940’s (Watson, 2002). It had an impact on education, some of the remnants of which are an emphasis on behavior, drill and practice and rewards.

**Behaviorism in the Inclusive Classroom**

In an inclusive setting, the behaviorist theory can be emphasized through the use of applied behavior analysis (ABA), curriculum based assessment (CBA), and behavior plans. The behaviorist theory has its roots in the mechanistic approach which occurred simultaneously in the empirical paradigm (Watson, 2002). In an inclusive classroom, there are students included with a wide range of disabilities, in some instances applied behavior analysis can be used to address behavioral issues. B.F. Skinner, who is credited with ABA, demonstrates how rewards help to bring about behavior changes. Shaping is one of the components of ABA (Ornstein and Levine, 1989). The educator uses operant conditioning principles to replace inappropriate behaviors with appropriate behaviors. Reinforcement of behavior and punishment are the core elements of operant conditioning, whereas, Pavlov’s classical conditioning centers on the
conditioning of behaviors, so it will manifest under new conditions. Modeling is a
component of ABA, which emphasizes the teacher’s modeling appropriate behaviors
(Ornstein and Levine, 1989).

Curriculum based assessment (CBA) is a form of measurement which utilizes
direct observation and recording of a student’s academic performance in order to create
instruction to fit the student’s individual needs. This provides teachers with the
opportunity to provide direct assessment of their student’s academic abilities. Probes
are a component of this strategy which helps the educator to assess the student’s
current level of achievement and to collect data. A huge part of CBA is collecting
information about the student’s academic and behavior in class (Daly, Elliott, Gresham,

The Individuals with Disabilities Education Improvement Act (IDEIA) supports
students in the inclusive environment through the utilization of Behavior Intervention
Plans (BIP), Functional Behavior Assessments (FBA) and behavioral goals in the
Individualized Education Program (IEP). Behavioral supports are used as a tool to
assist in the learning process. According to laws governing special education, if a
student is experiencing behavioral issues and the interdisciplinary team believes this
student can benefit from some behavior support, a functional behavior analysis is
created. A behavior plan is created using the information assessed in the functional
behavior analysis. A behavior plan is a set of strategies that helps to decrease
inappropriate behaviors and includes positive reinforcement and rewards for
appropriate behaviors and consequences for unacceptable behavior (Skinner, 1953).
Bursuck and Friends (1999) emphasize that all students with a disability are mandated to have an Individualized Education Plan (IEP). In this written document are goals and objectives for each area of disability. One of these areas of the IEP includes a social affective goal which addresses behavior issues. These goals are assessed on an annual basis to determine if objectives are met.

Cognitive Theory

Piaget created an idea of “genetic epistemology” which is “the study of knowledge and how we develop what we know” (Watson, 2002). Piaget’s theory is based upon the assumption that a developing child builds cognitive structures such as “mental maps, schemes, or networked concepts for understanding and responding to physical experiences within his or her environment” (Watson, 2002). Piaget’s theory includes four developmental stages: 1. “Sensory motor stage (birth-2yrs), which states that babies are born with the development of symbol use”. 2. “Preoperational stage (ages 2-7), this is based on the symbolic skills that the child has developed and then he or she learns to master symbolic thinking”. 3. “Concrete operational stage (ages 7-11), the child creates logical structures and is able to problem-solve”. 4. “Formal operations (11-15), the child has the ability to reason in abstract ways” (See figure 2:4). Each stage is dependent on the prior stage. Piaget believes the skills must be completed at each stage in order to move on to the next stage (Watson, 2002).
Piaget’s processes of assimilation and accommodation constitute the equilibration processes. These processes help humans adapt to the world. Humans are constantly creating new levels of understanding. These levels cause a major reorganization of society (Watson 2002). Lev Vygotsky’s theory creates a good comparison and enhances Jean Piaget’s theory. One of the major differences between the theories is based upon the language processes. Lev Vygotsky believes there are three levels of speech: social speech, egocentric speech and inner speech which becomes the tool that guides the child’s thinking. However, Jean Piaget believes egocentric speech leaves the child (Watson, 2002). The cognitive theory has had a great impact on the educational process and other theories of development. Its impact on education centers on “laying a foundation for educators to plan a developmentally appropriate curriculum that develops their student’s logic and conceptual growth”. “Piaget suggests that through the processes of assimilation and accommodation people construct new knowledge” which is the basic premise of the constructivist theory (Watson 2002, p.88).
Cognitivism in the Inclusive Classroom

In an inclusive setting, the cognitive theory is emphasized through the use of active learning, oral dialogue and thinking processes. Piaget’s thinking is at the center of the cognitive theory and he believes the learner is an active participant in his or her own learning process. He encourages active learning in the classroom. This is evident in his processes of assimilation, accommodation and equilibration. The learner takes in new information (the process of assimilation), combines the new with the existing information, (the process of accommodation), and the learner creates a balance (referred to as equilibration). Learners in an inclusive setting need to “explore, to manipulate, to experiment, to question, search out answers for themselves, and activity is imperative to successful learning” (Ginn, 2008, p. 2). The educator must facilitate active learning in the classroom. Active learning can be addressed through learning centers in the classroom which emphasize all learning styles.

Oral dialogue is a way to improve learning in an inclusive setting. This is a strategy emphasizing cognitive abilities that can be utilized with students with different learning patterns. Oral dialogue can be emphasized in Piaget’s first level of speech, social speech, in which the child learns that language allows him or her to interact with his or her environment (Watson, 2002). Discussion can be between the teacher and student or student and student. Dialogue between the teacher and student should include summarizing, questioning, clarifying and predicting. Oral dialogue can be combined with cooperative learning strategies with the group members taking on various roles such as summarizer, questioner, clarifier and predictor. Oral dialogue provides opportunities for students of various levels of ability to be able to engage in
dialogue with each other and the teacher. In order for dialogue to be effective, all students must see the classroom as a learning community where an exchange of ideas is encouraged. Dialogue helps students to learn from each other and it doesn’t matter what the student’s level of ability is, each has something to offer to the learning situation.

An emphasis on thinking processes is a necessary component of an inclusive classroom. Piaget offers in his stages of cognitive development the notion that children think and reason differently at different periods in their lives. A child must conquer the task at each step before moving on to the next. In Piaget’s formal operational stage of development, the learner has the ability to internalize ideas and thoughts and synthesize the results. In an inclusive classroom, the teacher can give students an opportunity to participate in activities that enhance thinking skills such as the Think-Pair-Share Strategy and the Minute Share, which emphasize cognitive abilities. The students are given an opportunity to think about a given topic, then students are paired together and then they share. The Minute Share is another strategy in which the teacher gives the student a topic and one minute to share either written or orally.

Lev Vygotsky’s (1962) theory is based on the social nature of learning. His belief centers on all learners interacting and engaging in dialogue with other learners; this will extend each other’s thinking. Vygotsky states it is the responsibility of the educator to move students beyond what they already know and assist them in understanding what it is they have come to understand.

Vygotsky (1962) believes the most important moment in a child’s life is when speech and activity join together. Vygotsky believes social learning precedes cognitive,
academic and language development. People are born with tools, such as speech and writing, to help them connect to their social surroundings. Vygotsky sees thinking as developing from the social level to the individual level.

Vygotsky (1962) states there are three stages of speech: social speech, ego-centric and inner speech (See figure. 2:5). It is at this point he believes social speech moves to ego-centric speech because the child lives in the moment and doesn’t understand that language labels their world. This is the stage where Jean Piaget’s and Vygotsky’s theories of language differ. Piaget believes ego-centric speech leaves the child. Vygotsky took Piaget’s thinking a little further; he insists speech is more cultural. Vygotsky believes ego-centric speech doesn’t leave the child, but it is turned inward; children begin to think for themselves. It is language that makes thoughts real. Inner speech becomes the guiding principle for a child’s thoughts. This goes along with the interpretive and holistic paradigm, which states that students are active learners in their educational process. Educators need to tap into a child’s inner speech because it is at this point that thinking skills develop. Vygotsky states the primary function of speech is communication and to promote social interactions (Vygotsky, 1962).

**Figure 2.5. Vygotsky’s Theory of Speech**

<table>
<thead>
<tr>
<th>Social Speech</th>
<th>Ego-centric Speech</th>
<th>Inner speech</th>
</tr>
</thead>
<tbody>
<tr>
<td>The child develops a set of symbols.</td>
<td>The child uses speech to understand himself.</td>
<td>The child uses speech as a mediating tool.</td>
</tr>
</tbody>
</table>

Watson (2002)

Vygotsky’s philosophy of education supports the principles of inclusion. One significant belief of inclusion is that all students will play an integral role in the learning community through academics and social interactions. Social interactions are a very
important entity in the educational process of students with disabilities; therefore, school is both an academic and a social environment. Vygotsky (1978) believes children are a part of society and are collaborators in their own learning. Learners are not simply passive recipients and are born with tools that assist in their growth on a continuum of socialization.

Clark (2005) purports that social interactions are a very significant component of inclusion; they give students with disabilities opportunities to create friendships, with non-disabled students not an option in a segregated environment (Clark 2005, as cited in Mye Portfolio of Education, 2007). Vygotsky (1962) believes social interaction takes place in the form of language dialogue. In an inclusive environment, this can be exercised between learner and learner and teacher and learner; this helps to increase the learning process for all students. The teacher should provide opportunities for interaction such as cooperative learning, peer tutoring, buddy reading and classroom discussions. In an inclusive classroom, it doesn’t matter at what academic level a student is performing; every learner has something to offer or bring to the learning situation.

Vygotsky (1978) developed the idea of the Zone Proximal Development (See figure 2.6) which refers to the range of academic abilities between what the child can do alone and his or her potential, through problem-solving with a peer or an adult mentor (Haith, Miller & Vasta, 1995). This should be utilized in the classroom with students who have disabilities as well as with non-disabled students. In an inclusive environment, it doesn’t matter what a student’s actual level of academic functioning is,
receiving help from a peer or an adult helps the student to reach their full potential level, which may vary from student to student.

**Figure 2.6. -------Zone of Proximal Development----**

<table>
<thead>
<tr>
<th>Stage 1</th>
<th>Stage 2</th>
<th>Stage 3</th>
<th>Stage 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>The child is provided assistance by a more skilled person.</td>
<td>The child is able to work alone.</td>
<td>Internalization occurs within the child.</td>
<td>The child’s potential is developed.</td>
</tr>
</tbody>
</table>

Watson (2002)

The Zone of Proximal Development allows the teacher to expose the students to higher level instructional materials which can be exercised in the subject area of reading. The educator can assess the student’s current reading level which is their actual level. At this level the student is able to read independently. The student’s guided reading level is assessed, which requires assistance; this is the student’s level of potential. Therefore, the educator is always engaging the student in this reciprocal learning process in order to increase their reading ability.

Vygotsky was not an advocate of isolating students with disabilities in a self-contained classroom (Gindis, 1998). Vygotsky believes social mainstreaming is very beneficial to students with disabilities. Vygotsky states that an authentic classroom would form a differentiated learning community which could fully develop a student with disabilities’ higher thinking skills and attitudes (p. 2).

John Dewey views education as a process of social activity and recognizes that the “school must itself be a community life which allows for social perceptions and
interests to develop” (Dewey, 1916, p. 415). His philosophy of education further
enhances the idea of educating all learners together in an inclusive environment.
Dewey believes the sole purpose of education is to contribute to the personal and
social growth of individuals; this is the premise of inclusion. Many of the principles of
inclusive classrooms are supported by those in John Dewey’s theory of education, such
as cooperative groupings, learning centers, thematic units and classroom discussions.

John Dewey’s (1916) idea of voice is important in an inclusive classroom. This
idea can be exercised in collaborative groupings where the students have an
opportunity to share their ideas with peers, including those with disabilities. One form of
a collaborative group is heterogeneous grouping which allows students of all academic
abilities to participate and share ideas. Dewey believes that allowing students to voice
their opinions in class, both written and verbally, confirms the idea that students’ words
and feelings are important entities in their learning process. Dewey (1916) believes that
when students participate in a group, each one brings his or her unique experiences to
the learning situation. Voice can be exhibited either individually or collectively, both
verbally and written (Wikipedia, 2007). When students have a voice they share in
decision-making and the construction of knowledge; therefore, the teacher becomes the
facilitator of education (Kordalewski, 1999). Writing should be meaningful and arouse
an intrinsic need; this means the facilitator of education needs to provide writing
experiences that create excitement and motivation within the student (Vygotsky, 1978).

John Dewey’s idea that students should be allowed to make choices is an
important entity in an inclusive environment. The idea of freedom of choice can be
displayed in learning centers. Learning centers give students an opportunity to
maximize their learning, either individually or collectively. Learning centers which are aligned with the open system of education allow students to be active learners, instead of passive learners. “Open systems are based on a meaning model of learning that draws on previous learning experiences and the prior knowledge that an individual brings to any event” (Oglan, 1997, p. 15). Working in learning centers gives students the choice to decide which center will best meet their needs. Dewey is an avid supporter of democratic values in education. He believes all learners must be free to test all ideas, beliefs and values. Students should be provided encouragement for their individuality, which authorizes students to make their own choices, within the educational arena.

Dewey believes all learners including those with disabilities; bring prior knowledge to any learning experience. This idea can best be explained in the utilization of thematic units in an inclusive classroom. Thematic units allow the teacher to create themes and to incorporate these themes across different genres. All students bring prior knowledge into the learning process which helps them to gain a deeper understanding. The educator connects learners to one another, to the environment and to the subject area, through thematic teaching so that learning is deeply integrated. Students can then discover what Dewey referred to as the “unity of knowledge” (Miller, 1999, p. 47).

John Dewey’s idea of reflective learning is essential in an inclusive setting. The idea of students reflecting on their learning is exercised through classroom discussion which can take the form of student pairing, small groups or whole group discussion. Dewey believes it is not only important to understand how children think, but to
understand that children need to reflect on what they think. It is one thing to do but, we also need to reflect on what we are doing (Dewey, 1938). Reflective educators need to actively engage learners with other learners and have them reflect on their thinking and on what others are thinking in order to broaden their ideas. This can be explained by Vygotsky’s (1978) process of generative thinking, which refers to the process in which a student generates a thought that leads to another thought, which often occurs in class discussions.

When educators connect prior knowledge and the student’s previous experiences to a learning situation, authentic learning occurs. All students have something to bring to the learning situation. The presence of a student with disabilities in an inclusive environment can provide growth opportunities for the entire class. A significant belief of inclusion is that all students are active learners engaging in the learning process together. It doesn’t matter if the student is labeled a special education student or a general education student; they all have something to bring to the classroom through interactions.

Although the earlier theories of learning support the forward movement of inclusion of students with disabilities, theories of education continue to develop. The behaviorist theory is deeply rooted in the empirical paradigm which supports rote learning, memorizing ideas and regurgitation of facts. However, the ideas of theorists were moving gradually with the emergence of Piaget, who introduced the cognitive theory. This theory, too, is closely linked to the empirical paradigm. At this time, society began to formulate ideas that not everything was to be memorized and that people do
build maps and schemas to create new levels of understanding. The theories of learning continued to develop, such as the psycho-social linguistic theory.

**Psycho-Social Linguistic Theory**

The psycho-social linguistics theory can best be associated with the interpretive paradigm, which emphasizes how people internalize their social environment and express it externally. This theory is closely linked to whole language, which is deeply rooted in the belief of “holism”. “Holism” means that in order to understand how learning occurs, one has to look at the whole, versus the individual parts, as per the “reductionist” view (Whole Language Wikipedia, 2008, p. 2). “This theory is developed from many kinds of research exhibiting the psycholinguistic and social nature of the reading process” (Goodman, 1986, p.1).

The psycho-social linguistics theory is based on two schools of thought, linguistics and psychology. The linguistic component of whole language was a result of Noam Chomsky’s ideas of linguistics. Chomsky’s belief that people are born with language ability is reflected in his idea of “universal grammar”. This was looked upon as a direct challenge to the behaviorist theory (Noam Chomsky, Wikipedia, 2007). The other component of whole language centers around psychology, in which the study of word recognition and reading examines the processes involved in the extraction of orthographic, morphological, phonological and semantic information from patterns in printed text (Psycholinguistics, Wikipedia, 2008). Noam Chomsky’s views helped to shape the cognitive revolution. In the 1970’s, the emphasis in psychology changed from the behaviorist to cognitive.
Ken Goodman (1967) created a psycholinguistic and sociolinguistic theory of reading with inspiration from Noam Chomsky’s ideas. This perspective or theory demonstrates the psycholinguistic and social nature of the reading process, emphasizing how children develop reading and writing skills (Pegler, 2007). Goodman is credited with the creation of whole language. In the 1960’s Goodman wrote *Reading: a Psycholinguistic Guessing Game* (1967). This had a great impact on the educational arena. It moved reading from a “sequential word recognition system to reading as a way of constructing meaning of print”; this is the basis for whole language (Pelgar, 2007). Goodman defines reading as: “a receptive psycholinguistic process, where the actors use strategies to create meaning from text” (Goodman 1988, as cited in Pelgar, 2007). Whole language is in direct opposition to phonics which highlights sounds associated with letters and syllables (Pelgar, 2007). Some supporters of whole language use embedded phonics, which uses the whole-part-whole concept, and aligns with the idea of “holism”. This concept can best be displayed in a strategy called “Reading Recovery”. It uses the whole-part-whole approach with readers who are struggling.

Whole language was a major educational paradigm in the 1980’s and the 1990’s (Whole Language, Wikipedia, 2008). There are several ideas associated with utilizing whole language in the classroom:

1. “Acceptance of learners
2. Flexibility within structure
3. Supportive classroom community
4. Expectations for success, as they engage in ‘real’ reading, writing, and learning

5. Skills taught in context

6. Teacher support for learning: scaffolding and collaboration

7. Contextualized assessment that emphasizes individual growth” (Weaver, 1995, p. 5)

Goodman (1988) created a three-part cueing system which occurs simultaneously: 1. Graphophenemic cueing system, which is the relationship between sounds and symbols. 2. Semantic cueing system, in which words and text constitute meaning. 3. Syntax cueing system, in which is simply the rules involved in grammar usage. This whole language approach helps “teachers to act as an interpretive, making sense of how students engage in language learning and offering experiences that support their experiments” (Goodman, K, S. 1988, p. 2).

**Psycho-Social Linguistic Theory in the Inclusive Classroom**

Holism is the basic premise of an inclusive classroom; therefore, it is essential that the psycho-social linguistic theory is emphasized in this setting. In an inclusive classroom there are students functioning at various academic ability levels; therefore, whole language helps to facilitate the learning process. Educators are able to focus on meaning in reading and writing (Goodman, 1989). There are several entities emphasized in whole language, such as the pupil’s account of the manuscript, inventive writing, and teacher directed literacy clusters (Whole Language, Wikipedia, 2007). In an inclusive classroom all learners are accepted regardless of environmental influences, therefore, instructional lessons and materials are designed to meet the
needs of each student. The student’s interpretation of the text is important, especially for students with disabilities, because they are often met with failure.

Journals are a way for students to become lovers of writing and express themselves. When students are given opportunities to write about topics of interest to them, writing becomes exciting, not laborious. In many instances, journal writing helps struggling writers feel comfortable about writing as there is no pressure related to academic measurement attached to this type of writing.

Small guided reading groups are an opportunity for teachers in an inclusive classroom to assess the reading levels of their students, including those with disabilities. The teacher is able to guide the student’s reading by asking questions about the text, which creates meaning. The educator is able to scaffold students to go beyond their zone of proximal development.

Many inclusive classrooms utilize several other strategies related to whole language, such as Drop Everything and Read (Whole Language, Wikipedia, 2008). This gives students an opportunity to read silently or with a buddy. The Reading Workshop is another strategy emphasized in a learner centered classroom, where the educator allows students to choose books of interest to them in a learning center.

**Brain Based Learning Theory**

The brain based learning theory is an approach to education based on ways current research suggests the brain naturally learns best. The basis of this theory is the idea that we are all natural learners (Caine & Caine, 1994). The objective of the brain based learning theory is to move from memorizing data to developing meaning. This theory is in direct opposition to traditional learning methods which emphasize drill and
practice, memorization and regurgitation of facts. The brain based learning theory is aligned with the principles of an inclusive classroom (Caine & Caine, 1994).

Caine & Caine (1994) identify two memory systems: the Taxon System and the Locale Memory System. The Taxon System is an information-processing system focuses only on the messages that appear important to the human. If these messages are meaningful, they move into our short term memory. If these signals are rehearsed for an extended amount of time, they move into the long-term memory. This type of learning creates operant and classical conditioning and has had a great impact on education. The Taxon Memory System can be connected to education in the empirical paradigm (Oglan, 1997).

Caine & Caine (1994) suggests the Locale Memory System helps the brain to transfer more complicated knowledge, which is most useful when educators facilitate this process. This system relies on the limbic system of the brain to create maps which are an interconnected representation of places in the external world (Caine & Caine, 1994) and provide assistance with movement and interactions within the environment. According to Oglan (1997) The Locale Memory System is immersed in the interpretive paradigm, which seeks to find new avenues and connect them to the past ones (Oglan, 1997).

**Brain Based Learning Theory in the Inclusive Classroom**

The brain based learning theory is essential to the educational process. The learner needs to be actively involved in using multiple sources of learning. Caine & Caine (1991) developed several principles, among them, the idea of the brain as a parallel processor designed to perceive and generate patterns as which the brain best
understands and remembers when facts and skills are embedded (Caine & Caine, 1991 as cited in Brain Based Learning 2007).

The notion of the brain as a parallel processor refers to the brain’s ability to perform several tasks at once. This principle can be applied in an inclusive classroom by utilizing the multiple intelligences theory. Howard Gardner’s (1993) theory of multiple intelligences offers the idea that each student has a variety of talents. The educator can address all of the intelligences by using such strategies as incorporating, physical, individual, group interactions, artistic variations and musical interpretations to help facilitate student learning (Gardener 1993, as cited in Bursuck & Friend, 1996). Using different strategies of instruction allows the student to engage in learning in various ways.

The brain is designed to perceive and generate patterns or connecting ideas. This principle can be applied in the classroom by utilizing the whole language approach to literacy. This approach emphasizes holism which means, in order for a learner to understand, he or she must look at the whole, instead of chunks. The educator can utilize this approach across the curriculum in all subject areas. In literacy the educator can use student pairing, small group, and silent sustained reading to incorporate the principles of the whole language approach (Caine & Caine, 1994).

The brain understands and remembers best when facts and skills are embedded in natural spatial memory. This principle can be applied in the inclusive classroom by creating “real life experiences, such as projects, field trips, and demonstrations” (Caine & Caine, 1994, p. 120). For example, an educator can read a novel with their students and, as a culminating activity, take the students on a field trip to see a play
about the novel. This principle highlights the importance of allowing students to gain hands-on experiences.

As the educational arena begins to embrace the values of holistic teaching strategies, it is imperative that the emotional state of learning becomes emphasized. Sylwester (1995) offers the significance of emotions in the inclusive classroom. He believes “our emotions are the gate keepers to learning” (p. 10). Feelings and interest are utilized by the mind to assist with our existence (Sylwester, 1995). He believes if the emotional needs of the student are unmet, this inhibits his or her learning process.

Sylwester (2001) believes our brain acknowledges significant dangers and opportunities in the learning environment. This is why educators need to create learning communities that are nurturing, supportive and safe. The peptide and the regulators are the two interchanging systems that affect the emotional state of a human. The peptide is responsible for getting signals to our emotional system. The limbic and brain stem make up one type of regulator. This system works together to control the body processes and functions. The second type of regulator is the cortex which has the responsibility to accept greater standards of performance, in conjunction with the outer earth (Sylwester, 2001).

Sylwester (1995) believes the brain’s ability to concentrate and maintain its attention on objects is crucial to the student’s learning. He offers school practices that support emotions in the inclusive classroom such as tension-releasing activities, metacognitive strategies and social interactions. He suggest that when students are engaged in an emotionally charged situation in the classroom, the educator needs to involve the students in a physical task, such as running, walking or playing, before
attempting to proceed to the next task. These tension-releasing activities should precede engaging in dialogue about emotions.

Metacognitive strategies can be utilized in an inclusive classroom to address emotional needs. Metacognition can be defined as “thinking about our thinking and knowing, what we know” (Blakey, 1990). Students should be given opportunities to engage in activities that promote discussion about feelings. These strategies should be geared toward helping students to think about situations. Students can work in pairs and small groups to problem solve (Blakey, 1990). Social interactions are a way to address emotional needs in an inclusive classroom. The students need opportunities for interactions. Collaborative groupings such as building social skills, listening and sharing thoughts are ways to increase positive social interactions within the learning community.

Leslie Hart (1998) states that the human brain enters a state of downshifting when there is a sense of danger. This same belief can be applied to the inclusive classroom. When students in the classroom feel threatened or afraid, it impacts their ability to learn. This process is a natural defense technique (Hart, 1998). This is why it is important for educators to address the emotional needs of students as well as academic achievement. When students are experiencing downshifting, it becomes difficult for them to focus. After an emotionally charged situation, it is important for students to be able to engage in activities that decrease their stress (Sylwester, 1995).

Hart (1983) states the proster theory is based upon the brain’s ability to associate with experiences. The idea of this theory is that the brain tries to accommodate the present incoming information with the existing information and make sense of it; this is
referred to as brain compatibility. Essentially, it is important for educators to create new learning experiences for students to acquire new levels of understanding.

Hart (1996) suggests that intelligence is a result of experience. Hart believes, that prior to children attending school, parents need to provide rich meaningful learning experiences. These experiences set the foundation for future learning to occur. Essentially, this means that the experiences a student brings to the classroom, have an impact on is or her learning. It is during this time that the brain creates a hierarchy of experiences, such as Being There, Real World Immersion and Hands-on (Hart, 1996). For an example, when a student takes an Intelligence Quotient (IQ) Test, what is essentially being measured over time is their level of experiences. Hart (1983) suggests that rich learning experiences are a necessary component of the inclusive classroom. Educators need to provide meaningful activities that allow students the opportunity for growth, both academically and socially. It is the educator’s responsibility to facilitate the process of transferring experiences within the classroom to the outside world.

Although many researchers have contributed to the brain based learning theory, there are significant differences among the theories, such as Caine & Caine (1994) whose research study takes a holistic approach of incorporating the theories of brain based learning in the classroom. These researchers highlight the importance of using a multitude of strategies to get the whole brain actively engaged in the learning process. Robert Sylwester (1995) believes that emotions drive academic achievement. If emotions are inhibited, it is difficult for learning to occur. Therefore, educators have to address the emotional needs of the student as well as academics. Hart (1983) believes
intelligence is a function of experience. When a student enters school, he or she brings experiences which impact learning. It is imperative that parents engage their children in rich learning experiences prior to their attendance in school. For example, if an educator asks questions about a topic, each student will have a different experience. Some students may not have ever been exposed to this topic; however, exchanging ideas with their peers provide them with some knowledge about the topic.

Critics of the brain based learning theory have raised some criticisms of this theory, such as:

1. “Many of the current theories of brain based learning are not created by the scientists who study the brain.
2. The summary principles are very vague and have not been confirmed by the scientists who study the brain.
3. The researchers oversimplify their findings” (Taher, 1996).

Although there have been some criticisms to the brain based learning theory, it continues to have a positive impact on learning communities. Many educators view brain based learning as a way to naturally engage their students in the learning process, especially in an inclusive classroom. The brain based learning theory is a necessity in the inclusive classroom setting. This theory allows students to actively engage in the learning process while connecting to their emotions, building self-esteem and engaging in authentic experiences.

Summary of Chapter 2

Chapter two presented a literature review of the theoretical framework for this research study. The evolution of the field of special education was outlined. The views of the proponents and opponents to inclusion were discussed. The impact of the
behavioral, cognitive, social-psycholinguistic, and the brain based learning theories were discussed and their impact in an inclusive classroom.
Chapter 3: Design and Methodology

Research Questions

Chapter three outlined the research design used for this study. The following questions guided the study:

Research Question 1: What social interactions do students with disabilities have with their general education peers?

Research Question 2: What social interactions do students with disabilities have with their teachers?

Research Question 3: What social interactions do students with disabilities have with their special education peers in an inclusive classroom?

Research Question 4: What impact do social interactions have on the student’s academic achievement in an inclusive classroom?

Research Design

The methodology used in this study was a qualitative ethnographic design with a case study format. The researcher conducted a systematic approach of direct repeated observations, reflections and reporting of the findings. In a qualitative ethnographic research study, the researcher identifies the target subject(s) and is then able to tell the story from the target person (‘s) perspective. In many instances, the information is collected over a substantial period of time. The basic premise of this type of research is that any changes in human behavior are observed over time. There are several types of data collection methods used in a qualitative ethnographic research study such as recording observations, collecting field notes, open-ended interviews and conducting focus groups.
Lecompte & Schensul (1999) state the process of establishing personal relationships in the field is built upon trust. This is referred to as “building rapport” (p.74). Lecompte & Schensul (1999) outline several ways to enter a research setting:

1. “Obtain formal permission
2. Establish contact with people knowledgeable about the setting
3. Identify and conduct interviews with local gatekeepers
4. Carry out observations from a distance
5. Obtain introductions through local gatekeepers and key informants and others in the research site
6. Gain direct involvement in the research setting with the assistance of key informants” (p.77).

Role of the Researcher in Ethnography

The researcher of this study was a teacher consultant for the research site and took on the role of a teacher/researcher. For the purpose of this study, the roles of teacher and researcher were used interchangeably. As the teacher/researcher a working rapport had been established with the student participants. At the time of the study, the student participants were on the researcher’s caseload. The teacher/researcher observed the students in their general education classroom. Spradley (1980) states that “the participant observer comes to a social situation with two purposes: 1. to engage in activities appropriate to the situation and 2. to observe the activities, people, and physical aspects of the situation “(p.54). The researcher played a balanced role in observing the social and academic interactions in the classroom. Key (1997) describes a balanced participant as being internal and external. The researcher decides when it is best to act as a participant and does not fully immerse in the activities.

A case study format was utilized in this research study. Yin (2003) reports that a case study contains the following components:
Case study research strategies answer the questions when, how and why, since the researcher does not control the outcomes of the events (p.1). The data collected from each of the student participants were a descriptive account of his or her social/academic interactions.

**Description of the Setting**

This study took place at a school that serviced students in the K-8th grade levels. The district is located in the Midwestern part of the state of Michigan. At the time of this study, the district included nineteen elementary schools, four middle schools, one intermediate school, two K-8th grade schools, four high schools and four specialized schools and programs, including a center program. At the time of the study, many of the schools (K-12) were involved in some form of inclusive education which best fits the needs of their special education population. The research site had a very diverse student body, with an enrollment of twelve hundred students (2009-2010). The observations took place in the general education inclusive classroom.

The district provides students identified with special needs additional assistance as mandated under IDEA 04 Federal law, from birth to twenty-five years of age. The goal of the school district is to assist the integration of students with special needs into the general education classroom by utilizing universal education. The Special Education Parent Advisory Committee (SEPAC) is committed to this goal. SEPAC (2009) along with Everyone Together and its member network takes the position that all
students, regardless of their disability, have the right to be educated with their non-disabled peers. Their basic premise is as follows:

1. All children should be educated together in their natural setting.

2. Our current educational system must lend its support to universal education.

3. Segregation is a moral issue.

4. Segregation of students with disabilities is a Civil Rights issue.

5. All children have the right to be educated with their peers and this is not a privilege.

6. All children can learn regardless of their disability.

7. All children have unique learning needs which require individualized support.

8. Universal education serves to be beneficial for all stakeholders in society.

(SEPAC WEBSITE, 2009)

The school district is committed to integrating all students with special needs into the general education classroom to the greatest extent possible. According to the school district statistical data, (2009-2010) the total number of students eligible for and receiving special education services was 2,253. This total number includes preschool, speech services and students receiving outreach therapy. Of this number, 930 students were receiving services in a special education basic classroom which includes services in the general education classroom. 1,323 students were general education students receiving ancillary special education services such as speech, social work, physical therapy and/or occupational therapy.
The total number of students eligible for and receiving special education services at the research site (K-5) was 25. All 25 students were included in the general education classroom and received ancillary special education services. The total number of students eligible for and receiving special education services in 6th to 8th grades was 51. Of this number, 25 students were receiving services in a special education basic classroom with some inclusive classes. Twenty-six students were general education students receiving ancillary special education services.

Definition of the Population and Sample

Placing students with special needs in an inclusive classroom does not automatically assist with building social interactions. It is the responsibility of the educator to facilitate and provide opportunities for students to engage in positive interactions. The population utilized in this study had the following characteristics: All of the students attended the research site. The students were identified as special education as determined by the school district. All of the students were included in an inclusive classroom. There was a selected sample of a cluster of three students with disabilities and 25-28 general education students participated in this study in the 5th grade level. As stated in the research questions, this study examined the social interactions of students with disabilities within a 5th grade level inclusive classroom and the effect on academic achievement.

Participant Selection

Three students with disabilities in a 5th grade level inclusive classroom were asked to participate in the study along with 25-28 of their general education peers. The researcher utilized a selected sample in order to have a cluster of three students in any
one setting. A cluster of only three students were available for observational purposes that met the requirements of the research study. The three participants were identified as needing special education support in the general education setting.

**Ethics & Protection of Participants**

A peer of the researcher served as the key personnel and met in person and obtained written consent from each of the students with special needs parents (See Appendix A). The researcher sent home an informed consent form to the parents of the general education students in the classroom. The parents were given two weeks to return the information sheet, stating they would not allow their child to participate in the study (See Appendix B). The researcher did not record any data on the students who were not been given permission to be in the study. In order to avoid coercion, the key personnel obtained oral assent from each of the student participants, due to their being only 11 and 12 years of age (See Appendix C). The researcher explained and obtained consent from one of three teachers who met the criteria of the research study, which is being a teacher in a 5th grade level inclusive classroom with a cluster of three students with disabilities (See Appendix D). Permission was also be obtained through the school principal (See Appendix E), school district (See Appendix F) and the Human Investigation Committee (HIC) at Wayne State University.

**Handling of the Data**

The data was collected in paper and electronic formats. The data was coded and locked in the researcher’s office. The master list was locked in a file cabinet in the researcher’s home. Only the researcher had access to the list. All of the data collected from the observations and interviews were given a code name and stored at the
researcher’s home and kept in a locked file cabinet. The researcher utilized audio tapes during the formal pre and post interviews with the teacher and the students with disabilities. The audio tapes were destroyed after they were transcribed. The students with disabilities were referred to as student participants #1, 2 and 3. The behavioral responses of the students in the classroom were recorded in the researcher’s notebook. No student names were utilized. Only pseudonyms were utilized in the study. The general education students’ behavioral responses were used for this research study. No names of these students were recorded.

**Data Collection**

Several methods of data collection were implemented in this research study: direct observations, collection of field notes and informal and formal interviews. Lecompte & Schensul (1999) suggest using multiple sources of data collection to support triangulation. Maxwell (2005) defines triangulation as “collecting information from a wide range of individuals, settings, and methods” (p.112). The researcher uses this method to “Build redundancy into their data collection methods” (Lecompte & Schensul, p.31). Spradley (1980) suggests utilizing a cyclical process when conducting ethnographic research (See figure 3.1). The researcher of this study collected data, created field notes and analyzed and recorded the data.
Spradley’s Ethnographic Research Cycle

![Ethnographic Research Cycle Diagram]

**Figure 3:1 Spradley’s Ethnographic Research Cycle**

**Data Collection Schedule**

The research study was conducted over a period of four months (See table 3:1). A short informal auditory interview followed each observation. Each of the participants was asked questions based upon their individual observations, as a way to clarify any important information. The first month consisted of an initial formal interview with the student participants using a set of pre-written open-ended questions which became a part of the research findings (See Appendix G). The purpose of open-ended interviews is to allow some flexibility for the researcher; as the interview process is completed some questions may need to be changed to more accurately reflect the responses. The researcher observed the students in the inclusive classroom and collected data. During the first month, the researcher employed a systematic cycle of direct observations,
collection of field notes and informal interviews. The initial fieldwork served as a basis for the field entry. The researcher conducted an initial formal interview with the teacher using a set of pre-written open-ended questions which were conversational driven in order to build an academic and social profile of the students with disabilities (See Appendix H). In the second month, direct observations of the students in the inclusive classroom were followed by brief informal interviews. The researcher completed direct observations, collection of field notes, journaling, and informal auditory interviews. The data collected was utilized in final research findings. In the third month, the researcher engaged in direct observation of the students in the inclusive classroom. The researcher employed a systematic approach of direct observations, collection of field notes, journaling, informal auditory interviews and formal audio interviews. In the fourth month, direct observation, fieldwork, journaling and a formal interview of the students and the teacher was completed. The students were asked a final set of pre-written open-ended questions which were determined by the outcome of the data collected throughout the study (See Appendix I). The teacher was asked a set of pre-written open-ended questions as a follow-up to the initial interview. These questions were determined by the outcome of the data collected throughout the study (See Appendix J). This helped build an academic and social profile for each of the students with disabilities. The final fieldwork served as a basis for the field exit.
### Table 3:1 Data Collection Schedule

<table>
<thead>
<tr>
<th>1&lt;sup&gt;st&lt;/sup&gt; month</th>
<th>2&lt;sup&gt;nd&lt;/sup&gt; month</th>
<th>3&lt;sup&gt;rd&lt;/sup&gt; month</th>
<th>4&lt;sup&gt;th&lt;/sup&gt; month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial formal interview with the student participants and teacher: a set of pre-determined questions will be utilized</td>
<td>Informal interviews with student participants</td>
<td>Informal interviews with student participants</td>
<td>Final interview/ Auditory interview: Teachers: conversational driven interview Student Participants: Questions determined from the data collected</td>
</tr>
<tr>
<td>5 observations of the student participants in the classroom</td>
<td>5 observations of the student participants in the classroom</td>
<td>5 observations of the student participants in the classroom</td>
<td>audio interview</td>
</tr>
<tr>
<td>Field entry</td>
<td>Field notes collected</td>
<td>Field notes collected</td>
<td>Field exit</td>
</tr>
<tr>
<td>Field notes collected</td>
<td>Field notes collected</td>
<td>Field notes collected</td>
<td></td>
</tr>
<tr>
<td>Journaling</td>
<td>Journaling</td>
<td>Journaling</td>
<td></td>
</tr>
</tbody>
</table>

**Observations and informal follow-up interviews**

Five observations of each student participant were conducted in the inclusive classroom. These observations ranged from 30 to 50 minutes each, as dictated by the activity each of the students were engaged in. Observations focused on the social interactions between students with special needs with their peers and teachers. The data from the observations was recorded in the researcher’s notebook as they occurred. The researcher did not collect academic data from the student participants but rather an anecdotal profile of the social and academic behaviors was created from
the interview with the teacher. Brief informal interviews followed the observations which served two purposes: to allow the researcher to gain a better understanding of the data and to increase credibility by utilizing member checks to ensure the information is accurate. Keys (1997) states that utilizing member checks can be both a formal and informal method of establishing trustworthiness. Lincoln and Guba (1985) describe member checks as a process utilized in qualitative research that allows the researcher to accurately reflect ideas, thoughts and actions of the participants.

**Formal Interviews (Open-Ended Interviews)**

The researcher conducted open-ended interviews with the student participants. These interviews took place at the beginning and end of the research study. The purpose of the interview questions was to ascertain how the students with special needs felt about their social interactions in their school environment. Open-ended questions were utilized for both of these interviews. The questions for the final interview were based upon the data collected and were uniquely developed for each student participant. The researcher conducted an audio interview with the general education teacher. This initial interview was conversational driven to determine the teacher's perceptions of the social interactions of students with special needs and their peers, and the impact of some on academic achievement. The final teacher interview was a follow-up to the initial interview and helped to build an academic and social profile of each student with special needs.

**Journals**

The researcher of this study kept a journal to record daily activities. The researcher recorded any unusual circumstances that might have occurred during the
observations and interviews. Spradley (1980) suggests the researcher keep an on-going journal to record experiences, ideas, feelings, mistakes, confusion and any problems that may arise during the fieldwork (p.71). A research journal was utilized to record the participant observer’s thoughts throughout the research study and served as a component for triangulation of data collection sources. The researcher referred back to the journal to determine what went well or did not go well throughout the study.

Field Notes

The researcher used a traditional observation notebook to write down observations as they occurred. Each entry had the date, time and duration of the observation at the top of the notebook page. There was no formal template used for the observation notebook. The researcher completed fieldwork and recorded the observations as field notes. Spradley (1980) offers two types of field notes: the condensed account and the expanded account. During this research study, the condensed account of field notes was taken by the participant observer during the actual observation. Later, these notes were transcribed into an expanded account to ensure the descriptions were accurate, understandable and included rich descriptive words. After the notes were transcribed the researcher created multiple copies and kept them in a file for coding of patterns.

Artifacts

Spradley (1980) defines artifacts as anything you can make or take from the environment. The researcher collected artifacts from the classroom setting such as instructional assignments; however, no student work was collected. The researcher only collected assignments that impacted the academic achievements of the students in
the 5th grade level inclusive classroom. Only empty/blank assignments were utilized as artifacts.

**Data Analysis**

The data derived from this study was collected based upon a systematic approach of direct observation, collection of data and analysis of the data. The data was analyzed and utilized and the final research findings consisted of the following:

1. Completed initial formal interview (open ended questions)
2. Analyzed open-ended questions
3. Completed direct observations and recorded information as field notes
4. Conducted informal interviews at the end of the observations
5. Transcribed and analyzed field notes (both condensed and expanded field notes)
6. Repeated the systematic approach of observation, recorded and analyzed for a 4-month time span
7. Conducted the final formal interview (both the teacher and student interview)
8. Field exit
9. Analyzed artifacts
10. Recorded the research findings

Spradley (1980) offers several ways the participant observer can make sense of patterns in the data, including cultural domain analysis, taxonomic analysis and componential analysis of data. Spradley (1980) defines analysis of “any kind of way of thinking. More specifically, it refers to the systematic examination of something to determine its parts, the relationships, and their relationships to the whole” (p.85).
**Constant Comparison Analysis**

Constant Comparison Analysis is a process that is utilized when the researcher wants to look at the data from a broad perspective. Leech & Onwuegbuzie (2006) suggests this type of analysis allows codes to emerge from the data. The researcher of this study read through all of the collected data from the observations and chunked the data into similar parts. Each part of the data was coded with a detailed code. The data was coded and grouped together according to similarity and themes were developed.

**Cultural Domain Analysis**

In this study, the researcher used field notes to create a cultural domain analysis. Spradley (1980) suggests that “any description of cultural domain always involves the use of cover terms, included terms and semantic relationships” (p.89). In this study the cultural domain analysis allowed the investigator to establish relationships between items in the field notes. During the observations, the participant observer recorded notes about the environment. The researcher created a domain analysis worksheet to search for cover terms, semantic relationships, words and phrase that allowed the researcher to create relationships between items in the field notes.

**Taxonomic Analysis**

Used as the second step of analysis, taxonomic analysis was designed to show a relationship between items in a domain. Spradley (1980) suggests that a taxonomic analysis provides a deeper understanding of the cultural domain (p.112). In this study, the researcher created semantic relationships by comparing and contrasting items in the domain and searched for greater more inclusive terms. The information was displayed using taxonomy to help establish organization.
Componential Analysis

The componential analysis is an additional step that can be utilized to allow the researcher in this study to identify and sort items of contrast. In this study the researcher prepared a paradigm and searched for patterns within and across all of the domains. This allowed the researcher to clearly determine which items were in direct contrast. Spradley (1980) states that componential analysis is the last step in the process of simplifying the data (p.130). Leech and Onwuegbuzie (2006) suggest that implementing several types of data analysis allows the researcher to better understand the data.

Reliability and Validity

In this qualitative ethnographic research study, the researcher tried to build trustworthiness as outlined by Lincoln and Guba (1985). Lincoln and Guba (1985) establish a naturalistic paradigm suggesting four major techniques are used to establish trustworthiness when completing a qualitative ethnographic research study: credibility, transferability, dependability and conformability. The question that should guide the researcher’s thinking is, “How can an inquirer persuade his or her audience (including self) that the findings of an inquiry are worth paying attention to, worth taking account of?” (p. 290).

Credibility

In order to build credibility, several techniques must be included in the research study. Lincoln and Guba (1985) assert the technique of establishing credibility directly relates to the researcher establishing internal validity, which exists when the outcome of
the dependent variable can be attributed to the controlled independent variable (p. 291).

**Prolonged Engagement**

Lincoln and Guba (1985) suggest the first technique used to build credibility is prolonged engagement. This allowed the researcher to spend sufficient time in the field to learn or understand the culture, location of the study and the topic of interest. “This technique requires that the investigator learn context, minimize distortions, and build trust” (p.302). Prolonged engagement was established by creating deeper relationships between the participants and the researcher. The researcher is a teacher consultant in the classroom on a daily basis and had already established a relationship with the student participants. Prolonged engagement assisted in building validity within the study.

**Persistent Observation**

Lincoln and Guba (1985) suggest that persistent observation is the technique used to build credibility. This technique provides for depth. The main objective of persistent observation is to identify relevant factors in the study. The researcher of this study identified the most relevant key events of the research and provided a summary. The researcher established the process of tentative identification, an aspect of persistent observation. Throughout this study the participant observer established continuous assessment of the study.

Lincoln and Guba (1985) states that the technique used to build credibility is triangulation which can be defined as simply using several different data collection methods and data analysis methods to complete a research study (Lincoln and Guba,
as cited in Leech & Onwuegbuzie, 2006, p.304). The researcher used several different data collection methods during this research study such as the collection of field notes, formal and informal interviews, collection of empty instructional assignments, reflective journaling, and audio taping. There was an opportunity for the researcher to individually verify each section of the study using different data sources, different collection methods and multiple committee members for cross-checking of the data.

**Peer Debriefing**

Peer debriefing is essential in establishing credibility in a qualitative ethnographic research study. It is the “process of exposing oneself to a disinterested peer in a manner paralleling an analytic session and for exploring aspects of the inquiry that might otherwise remain only explicit within the inquirer’s mind” (Lincoln & Guba, 308). Peer debriefing helps to keep the researcher “honest” (p.308). Peer debriefing allows the researcher to examine his or her research with a critical eye, through a series of debriefing sessions. The researcher had the opportunity for a debriefing session to discuss the findings with other professionals in the field of special education, such as professors, committee members and colleagues. Throughout the research study, the researcher met with committee members and colleagues who acted as external auditors and examined the progression of the data. The colleague is a school psychologist. Who has an Educational Specialist Certificate in psychology and is familiar with the research process. All of the meetings with the debriefers were audio taped. Each of the professionals provided insight from the data and looked for patterns
of similarities and differences among the analysis and taxonomies. Each of the findings was compared to one another to produce a final product.

**Member Checks**

Lincoln and Guba (1985) suggest that member checks are the most critical technique used to establish trustworthiness. “It is both informal and formal and is a continuous process” (p. 314). Member checks allowed the researcher to share his or her findings with the participants of the study to ensure the data collected, such as interview transcriptions or observational field notes, was accurate. Member checks allowed the participants to analyze the findings and report their views. The researcher conducted informal interviews with the participants following the observations, to ensure the information collected was accurate. This technique allowed the researcher to confirm the accuracy and completion of the data collected.

**Transferability**

Transferability was the second technique used by the researcher to build trustworthiness. This technique is directly linked to applicability. Will the investigator be able to apply the research in similar situations? Lincoln and Guba (1985) suggest that, unlike external validity, transferability serves as an indicator of the cause and effect relationship across different types of persons, settings and themes (p. 291). The researcher of this study established transferability by providing rich descriptive data and a database that allowed interested parties to make transferability judgments and draw conclusions.
Dependability

Dependability is a technique that was used by the researcher to build trustworthiness in this study. This technique is directly linked to reliability. How reliable is the research? Lincoln and Guba (1985) suggest several methods that may be instituted to establish dependability. The overlap approach may be used to establish dependability in conjunction with credibility. In this study external auditors were the committee members from the university who were used to determine and verify if the researcher’s findings were grounded in theory.

Confirmability

Confirmability is the technique that was used by the researcher in this study to build trustworthiness. This technique is directly linked to objectivity. Are there any biases detected in the research data? Lincoln and Guba (1985) state confirmability can be established by utilizing the audit trial process, triangulation and reflective journals (p.316). The researcher of this study ensured the data, interviews and field notes were factual and not merely the researcher’s “personal constructions” (p.324). Even though the researcher of this study collected and disseminated the information according to the legal and ethical steps involved in data collection, the data remained susceptible to the researcher’s own interpretations. Therefore, the researcher established objectivity by utilizing an audit trail which is very important when establishing trustworthiness. The external auditors completed the audit trail process. Leech & Onwuegbuzie (2006) describe the audit trail as a procedure that establishes clear paths between all stages of the study. The researcher utilized dated written field notes and both formal and informal interviews to determine the accuracy of the progression of the data.
Chapter 3: Summary

Chapter three discussed the ethnographic case study research design of this study. The research questions, setting, definition of the population and sample, selection of participants, ethics and protection of participants, handling of the data, data analysis, data collection process and the trustworthiness of the research study was discussed. The major findings of this study were reported in chapter 4 for the purpose of responding to the research questions.
Chapter 4: Discussions of Findings

The findings addressed the overall social and academic interactions within a 5th grade level inclusive classroom and each student participant was discussed individually. The findings in this chapter were constructed from observations, teacher and student interviews, empty/blank instructional assignments and journal reflections. The results of this data analysis were organized under the following headings:

1. Identification of Key Events
2. Choosing Key Events
3. Summary of Key Events
4. A description of the general education teacher and the teacher’s theoretical beliefs
5. A description of student participant #1/anecdotal academic profile as provided by the teacher
6. A description of student participant #2/anecdotal academic profile as provided by the teacher
7. A description of student participant #3/anecdotal academic profile as provided by the teacher
8. A description of the cultures in the classroom
9. A description of the classroom setting/environment
10. A description of the learning center activities
11. A discussion of the social patterns within the inclusive classroom
12. A discussion of informal/formal academic interactions
13. A discussion of the individual academic/social findings for student participant #1
Identification of Key Events

Prior to sorting the data, the researcher made multiple copies of all of the text to ensure accuracy before the analyzing process. The researcher organized and put all of the dated field notes and interviews in a binder according to the dates of origination and categorized all of the information in a file according to the type of data, such as expanded accounts of field notes, formal and informal interviews, artifacts were empty/blank instructional assignments collected during the researcher’s observations in the classroom. The research questions were compared against the collection of data. The researcher made sure the data was useable in order to avoid having to re-enter the field.

The researcher utilized information from observations, formal interviews and informal interviews to identify key ideas. All of the field notes were read through to determine what social and academic patterns existed in the collection of data. Initially, identifiers were established for each of the participants of the study: such as NDC refers to the students with disabilities in the non-dominant culture, DC refers to the general education students in the dominant culture, and T refers to the general teacher. The researcher read through all of the text to determine which group of participants initiated the interactions and under what circumstances did the interactions occur with the other group. For instance, a student in the DC group approached a student in the
NDC group and started a conversation. These interactions were color-coded with markers to denote the two group’s interactions. Each of the interactions between the groups was coded in a different color marker to ensure accuracy and to determine the frequency of the types of interactions that existed in the areas of social and academics. The process of coding the patterns of interactions was utilized with all of the raw data collected from the observations.

**Choosing Key Events**

The data from the observations and interviews was coded and placed into categories, such as NDC, DC, and T. The data was analyzed by the researcher utilizing both the research questions and the participant groups’ identifiers. Although the study is qualitative, the data was used to create numerical charts to allow the researcher to make logical judgments about the data. Charts were created on the patterns of social interactions utilizing both the social and academic interactions in the classroom between all of the participants. Numerical data from the academic interactions was separated and categorized into a chart on formal and informal interactions. Data from the observations was utilized to chart each individual student participant’s informal and formal academic interactions and was also used to identify the group they interacted with. The researcher was able to create charts for the individual participant’s academic and social interactions by reading through the text and coding the data.

After sorting and coding the data, a domain analysis worksheet was created to establish relationships between items in the text. The researcher compared and contrasted major and minor themes in the domains to identify relationships among the
terms. The student and teacher interviews were used to build anecdotal profiles for each of the student participants. In the initial formal interview, the teacher was asked a set of pre-determined open-ended questions focusing on the student participants’ academic achievement and social interactions in the classroom. At the conclusion of the observations, a final formal interview was conducted with the teacher in which she was asked about the current performance of the student participants. The teacher was asked additional questions that were developed as a result of the observations in the classroom. In the initial formal interview with the student participants, they were asked a set of pre-determined questions about their own academic achievement and social interactions in the classroom. In the final formal interview, the questions asked were developed based on the observations of each of the participants, which heavily related to their academic achievement and social interactions in the classroom.

During the data collection process, the researcher met with university professors to establish peer debriefing. The meetings were held throughout the study to determine the accuracy of the data. These external auditors were concerned with the methods, meanings and interpretations of the researcher’s data at each of the various stages in the research study. Following each observation, the researcher met informally with the participants of the study and asked questions to ensure the information in the field notes was accurate to serve as a method of completing member checks.

**Summary of Key Events**

Initially, while going through the analysis process, the researcher continually made connections between the raw data and the research questions. The data collected from the interviews and the observations was categorized according to its
correlation to the research questions. The researcher read and categorized the student participants' formal interview questions to seek emergent patterns by comparing and contrasting items in the text. Spradley (1979) suggests this is known as creating semantic relationships.

**Description of the Teacher/Theoretical Beliefs**

At the time of the study, Mrs. Ryan (pseudonym) was in her 1st year of teaching at the 5th grade level at her current school. She taught middle school for 18 years, including math, science and language arts. Mrs. Ryan has taught all subject areas at the elementary level. Mrs. Ryan received her Bachelor of Arts from Eastern Michigan University. Mrs. Ryan received her Master of Arts from Wayne State University in the area of science. Mrs. Ryan currently holds a certification in elementary science grades K-8. Mrs. Ryan had been involved in inclusion for six years at her current school, which includes co-teaching with a special education teacher. Mrs. Ryan described herself as an advocate for inclusive education. She demonstrated this belief by allowing her students to work cooperatively in centers (one of the tenets of inclusion). Her cooperative learning groups were heterogeneously designed and the centers were created to encompass the individual needs of each of her students. Mrs. Ryan encouraged the students to engage in student-to-student and teacher-to-student dialogue during the center time each day. Each day there was an opportunity for each student to work either cooperatively at their assigned seat or to participate in learning centers.

Mrs. Ryan theoretically believed students should be given opportunities to engage in dialogue, a belief based on John Dewey’s theory that, if students are given
opportunities to engage in dialogue, they become active participants in their own education (John Dewey, 1916). Mrs. Ryan provided cooperative learning opportunities for her students. The students were able to choose their assignments within the individual centers: This aligns with Dewey’s (1916) idea of allowing students the freedom to make choices and being able to use their voices in the classroom setting. Mrs. Ryan grouped the students according to their guided reading level, which aligned with Lev Vygotsky’s (1975) idea of the Zone of Proximal Development. This allowed the students to work alone at their independent levels while the teacher guided them to their instructional level.

**Description of Student Participant #1**

Yousef (pseudonym), student participant #1, was a 5th grade student in an inclusive classroom. Yousef was eligible for special education support under the disability of Speech and Language Impaired (SLI). Yousef’s language affected his reading comprehension. Yousef received formal speech services and teacher consultant support. Yousef attended the research site for six years and had always been included in an inclusive educational program. Yousef has one older sister and a younger brother. Yousef had good relationships with his peers and teachers, and had supportive parents.

**Anecdotal Academic Profile for Student Participant #1**

Yousef’s academic profile was constructed from the initial and final interviews with Yousef and Mrs. Ryan. Yousef’s academic strength was in mathematics. He enjoyed completing math problems that included computation, such as carrying, borrowing and multiplying numerals together. Yousef’s academic weakness was in the
area of language arts, including both reading and writing tasks; this can be attributed to his difficulties language. Yousef was reading below the 5th grade level and was at a 3rd grade reading level. Yousef had difficulty absorbing information and putting it down on paper. He frequently rushed through his assignments and had to be reminded to slow down and take time completing the assignments. Yousef enjoyed working at the learning centers and engaging in dialogue with his friends. Yousef liked playing board games with his peers, such as the game Malachi.

**Description of Student Participant #2**

Ali (pseudonym), student participant #2, was a student with special needs in a 5th grade inclusive general education classroom. Ali was eligible for special education support under the exceptionality of Specific Learning Disabilities (SLD). Ali qualified in the areas of reading comprehension, math calculation and written expression. Ali received teacher consultant services to address all academic areas identified. Ali received formal speech and language services to address communication and articulation deficits. Ali received occupational therapy to address fine motor skills. Ali received social work services to address social interactions. Ali received formal teacher consultant, speech services, occupational therapy services and social work services. Ali attended the research site for six years and had always been included in an inclusive educational program. Ali has three older sisters and one older brother. Ali had a great relationship with his teacher. However, he had some difficulty interacting with peers and had supportive parents.
**Anecdotal Academic Profile for Student Participant #2**

Ali’s academic profile was built from the initial and final interviews with Ali and Mrs. Ryan. Ali’s academic strength was asking questions to aid in his understanding and engaging in productive dialogue about the assigned academic task with his teacher and peers. Ali knew basic math skills very well. Ali’s academic weakness was in the areas of language arts, reading comprehension and written expression. Ali had difficulty with the grade level expectations in math. Ali was reading below the 5th grade level and was at a 3rd grade level. Ali required reinforcement to complete assignments and accommodations, such as extra time completing assignments, tests read orally, alternate setting and modifications to shorten the amount of items given to complete the assigned task. Ali often rushed through assignments and had to be redirected to slow down for better accuracy. Ali had difficulty with penmanship and struggled with completing assignments involving handwriting tasks. Ali enjoyed reading groups and working and engaging in dialogue with the teacher. Ali enjoyed doing math, especially tasks involving multiplication. Ali liked to play board games with the teacher and his peers.

**Description of Student Participant #3**

Khalid (pseudonym), student participant #3, was a 5th grade student in an inclusive general education classroom. Khalid was eligible for special education support under the exceptionality of Other Health Impairment (OHI), specifically Attention Deficit Disorder (ADD). Khalid received formal teacher consultant services to provide accommodations in the general education setting, such as extended time on assignments, an alternate setting and small group setting. Khalid had attended his
current school for one year and had always been involved in an inclusive setting. Khalid has one younger brother and one older sister. Khalid had a great relationship with the teacher and peers and had supportive parents.

**Anecdotal Academic Profile for Student Participant #3**

Khalid’s academic profile was constructed from initial and final interviews with Khalid and Mrs. Ryan. Khalid’s academic strength was in reading. Khalid was reading very close to grade level, but was somewhat below because of the Attention Deficit Disorder. Khalid would forget to complete class assignments and homework which had an impact on his reading ability. Participant #3 was usually reading chapter books and was very fluent and had a good comprehension of the story. Khalid had a good basic knowledge of math skills. However, there were some areas of weakness present, such as working with fractions. Khalid had difficulty due to rushing through class assignments which often contributed to making the assignment illegible. The teacher had to redirect Khalid to slow down and write carefully. Khalid enjoyed reading novels in class and at home. Khalid enjoys interacting with his teachers and peers. Khalid enjoyed completing word searches and would often ask the teacher to have a contest to see who can finish first.

**Description of the Cultures in the Classroom**

In the inclusive 5th grade classroom, there were a total of 28 students enrolled at the time of the study. However, for observational purposes, only 24 students were utilized for this study. During the consent process, four of the students’ parents did not want their children to be included in the study and, therefore, no data was collected on those students. All of the students in the class were Arab American. Approximately
three of the general education students were new to the United States and were secondary language learners (SLL). However, for the purpose of this study, SLL students were considered general education students. The three student participants of this study who received special education support were identified in this study as the students in the non-dominant culture. There were 21 general education students who were identified in this study as students in the dominant culture. There were only one teacher utilized who met the criteria for this research study.

**Description of the Classroom Setting/Environment**

Upon entering Mrs. Ryan’s 5th grade classroom, the researcher noted twenty-eight students present, nine of whom were girls. The desks were arranged mostly in groups of fives, to allow the students to engage in dialogue and share ideas with each other. During this observation, Mrs. Ryan began the lesson with very explicit directions. She required the students pay attention as she described the details of the lesson. Ms. Ryan began explaining the assigned centers for the day. Each of the groups contained both male and female students, which were grouped according to the students’ individual reading levels (See Table 4:1). Mrs. Ryan was utilizing an overhead projector and the center schedule was displayed in the front of the class, which allowed the groups to determine which centers they were to work in for the day. Mrs. Ryan went over the directions of center time as the students looked on. Mrs. Ryan announced it was time for the students to go to their centers. The centers usually took place on Mondays through Thursdays for 30 minutes to an hour, depending on the assigned activities.
Mrs. Ryan was conducting a reading group, which is one of the daily centers. She walked quietly to each student within the group as they were reading their story. The other students were completing their assignments in their respective center groups. The centers consisted of math, writing, word search puzzles, language arts, board games and, sometimes, the computer center was available (See Table 4:1). Mrs. Ryan walked around the classroom, making certain each student understood the assignment and was on task. Upon returning to the reading group, Mrs. Ryan announced it was time to switch centers. All of the students switched to their second assigned center. Student participants #1 & 2 were in the same reading group. Student participant #3’s group was talking and laughing, but participant #3 was sitting by himself and working quietly. Student participants #1 & 2’s group and the teacher engaged in the following conversation during center time:

Teacher: Are you completing your work?
Participant #2: Yes we are.
Participant #1: Are we going to read this book?
Teacher: How do you know the student is smart?
Participant #1: I go home every day and do my homework.
Teacher: How many of you do homework each night?
Participant #1: I do my homework with my mother.
Teacher: How does Julie feel in the story?
A general education student: Embarrassed.
Teacher: What do you think is happening to Julie?
Participant #1: Julie lost her homework.
Teacher: who has brothers and sisters?
(Student Participants #1 & 2, reading group, 1/11/10)

Mrs. Ryan announced that center time was over for the day and the students returned to their assigned seats. The students appeared to be anxious to find out what they were going to do next. The teacher announced it was time to go to gym and the class
hollered, “Yes!” The students eagerly lined up at the door of the classroom and went to gym.

**Description of the Learning Center Activities**

There were six learning centers available to the students on Mondays through Thursdays, with the exception of the computer center, the availability of which varied according to the assigned tasks in the classroom. The center groups were categorized by the numbers 1 through 5. The number located at the top of each table represented the groups. All of the groups moved through the learning centers according to their assigned reading group number. The teacher would share with the students what group number they were in, so when it was time to change centers, the students looked for their numbers. For instance, group two started in the guided reading group with the teacher and moved to the puzzle center. Group two’s final center for the day was the independent reading center (See Table 4:1).

**Puzzle Center:** The puzzle center consisted of a word search that usually correlated to a subject area, such as science or social unit (See Appendix K).

**Writing Center:** The writing center consisted of a passage detailing an event and corresponding questions accompanied the passage (See Appendix L).

**Math Center:** The math center consisted of hands-on math activities, such as versatiles, math review sheets that served to reinforce the current math topic in the class (See Appendix M).

**Language Arts:** In the language arts center was independent reading assignments. There were English and grammar skills at this center (See Appendix N).

**Game Center:** The game center consisted of board games, such as
Malachi, checkers, Uno cards and a deck of playing cards.

Computer Center: There were four computers available. This center was not utilized each day of the week and was usually assigned based on what was being studied in the classroom.

**A Typical Center Schedule**

<table>
<thead>
<tr>
<th>Teacher</th>
<th>G (2)</th>
<th>G (1)</th>
<th>G (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent Reading</td>
<td>G (4)</td>
<td>G (3)</td>
<td>G (2)</td>
</tr>
</tbody>
</table>

F=female student
M=male student

**Table 4:1 Typical Center Schedule**

<table>
<thead>
<tr>
<th></th>
<th>1,3,5</th>
<th>2,4,5</th>
<th>1,4,5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>f, m, m, f</td>
<td>m, m, f</td>
<td>m, m, m (P#3)</td>
</tr>
<tr>
<td>Writing Center</td>
<td>m, m, m</td>
<td>m, m, m, m</td>
<td></td>
</tr>
<tr>
<td>Math Center</td>
<td>m, m, f</td>
<td>m, m, f (P#1)</td>
<td>m, f, f, m, m</td>
</tr>
<tr>
<td>Language Arts Center</td>
<td>f, m, m, f</td>
<td>m, m, m</td>
<td>m, m, m, m</td>
</tr>
<tr>
<td>Game Center</td>
<td>m, f, m, m</td>
<td>m, f, m (P#2)</td>
<td>m, f, m</td>
</tr>
</tbody>
</table>
Patterns of Social Interactions

The findings indicated in January to March, the greatest amount of social interactions occurred between the non-dominant cultures and the dominant culture which may reveal students in the non-dominant culture initiated the majority of these social interactions between the two cultures (See Table 4:2). These interactions could be the result of the students in the non-dominant culture trying to be accepted or liked by the students in the dominant culture. For instance, in January, student participant #2 walked over to one of the students in the dominant culture and tried to explain how to use the math versatiles to complete the assigned math worksheet. The conversation between participant #2 and the student in the dominant culture follows:

Participant #2: Do you know how to do the math assignment?
Dominant Culture Student: Yes, I do.
Participant #2: You have to empty all of the pieces on the table.
Dominant Culture Student: Why?
Participant #2: To start over
Dominant Culture Student: OK
Participant #2: You have to work each math problem and then the pieces go with the math pieces.
Dominant Culture Student: Oh, what are pieces?
Participant #2: The versatiles are pieces.
Dominant Culture Student: Thank you.
(Dominant Culture & Participant #2, personal communication, 1/13/10)

Another female student from the dominant culture joined the group and began to count the number of versatiles. Student participant #2 appeared excited about helping a peer from the dominant culture to understand the directions to the assignment. Participant #2 was smiling, especially after the student in the dominant culture thanked him.
In February, during center time, participant #2 was at the puzzle center working on a word search puzzle (See Appendix K). Participant #2 left the assigned group and started walking around the classroom and stopped in front of the desk of a student in the dominant culture and gave him the answers to the word search. This student did not ask for help, but student participant #2 volunteered to assist him. During the informal interview, student participant #2 was asked to explain why he went over to the male student in the dominant culture’s desk. The conversation follows:

Participant Observer: I noticed that you kept going over to a student’s desk and gave him answers to the word search, why?
Participant #2: I don’t know. I don’t know why.
Participant Observer: Were you supposed to do that?
Participant #2: Um, um, I don’t know
Participant Observer: Did the student share answers with you?
Participant #2: No, because he didn’t have any answers to share. He found the same answers that I found.
Participant Observer: I heard the student say the word “cloud”, which was not one of the words on the list. Can you explain this?”
Participant #2: I knew that was not one of the answers, so I did that on accident.
Participant Observer: Do you consider this student your friend?
Participant #2: Yes
Participant Observer: Very good
(Participant #2, informal interview, February 23, 2010)

Participant #2 seemed eager to assist and gain acceptance into the dominant culture. Participant #2 was disappointed that the word cloud was not on the word search and that he gave out an incorrect answer to a student in the dominant culture. Participant #2’s facial expression exemplified his displeasure. However, he did consider this student his friend as indicated in the informal interview.

The findings inferred in January to March the number of social interactions that occurred between the dominant culture and the non-dominant culture increased each
month, which might explain why the students in the dominant culture initiated interactions with the students in the non-dominant culture (See Table 4:2). Perhaps the students in the dominant culture wanted to interact and establish positive relationships with the students in the non-dominant culture. For instance, in March student participant #1 was paired up with a male student in the dominant culture. These students were discussing their reading book. This conversation appeared to be positive and both of the students remained on task throughout the center time. These two students were trying to figure out the grade level of the book. The student in the dominant culture stated, “What level do you think this book is?” Student participant #1 stated, “I am not sure”. In the month of March student participant #2 was playing a card game with a male student in the dominant culture. The participant was standing up and sharing his deck of cards with his peer. The student in the dominant culture asked, “Do you know how to play cards?” Student Participant #2 stated, “I do know how to play this card game”. Both of these students continued to play the card game and interact positively during center time. In January, a male student from the dominant culture approached student participant #3 and asked, “Will you go to the back of the classroom and read with me?” After student participant #3 worked with this student, another male student in the dominant culture came over to him and asked if he would work with him. These two students worked together throughout the entire center time.

The findings described in February and March the interactions between the students in the dominant culture and the non-dominant culture increased and were closely aligned (See Table 4:2). The data points out a possible reciprocal relationship between the two cultures. These interactions could infer students in both cultures
wanted to interact with each other and establish friendships. The data from the interviews indicated these interactions might extend beyond the classroom and that both cultures of students benefitted from these relationships. For instance, in January during the initial formal interview, the student participants were asked about the activities they are involved in after school with their friends. The conversation follows:

Participant Observer: Tell me about the activities that you and your friends get together and do after school.
Student Participant #1: ‘We go over my house and every Friday. Fridays we go to my house and we play video games. Sometimes after school on Monday, Tuesday, Wednesday, Thursday we do homework’.
Student Participant #2: “We play games. We play outside in the front yard of this school”.
Student Participant #3: “Sometimes we get to go and play. Sometimes we go and play in the back of the room. We do snowball fights. We make snow forts and other times I go to my friend’s house and two other friends in the class come. We play hopscotch and sometimes we play dog and maybe frozen tag.
(Participants #1, 2, & 3, formal interview, January 13, 2010)

The findings revealed in January to March the least number of social interactions occurred between the non-dominant culture and the non-dominant culture, which might explain why the non-dominant culture initiated more interactions with the dominant culture and less within their own culture (See Table 4:2). One possible explanation for this is the assigned leveled reading groups. In January student participants #1& 2 of the non-dominant culture were assigned to the same reading group. However, in February Mrs. Ryan changed the groups and this could have made it difficult for the students in the non-dominant culture to interact, while it was more practical for them to interact with the students in the dominant culture. This could account for the low patterns of interactions within the non-dominant culture.

Mrs. Ryan would sometimes join two reading groups together, based upon the level of the current book. However, even when two participants of the non-dominant
culture were in the same group very little interaction took place between them. In January, Mrs. Ryan combined participant’s #1 & 2 groups together. During the computer center time, participant #1 called for participant #2 to come and work on the same computer together, but participant #2 ignored the request and they did not interact with each other. Participant #1 wanted to share the computer with participant #2. However, the latter was not interested in working together. Participant #1 expressed feelings of being hurt. During the informal interview with participants #1 & 2, each were asked to explain why they did not work on the computers together and the conversation follows:

Participant Observer: I noticed that you called for Participant #2 to join you at the computer, why?
Participant #1: So we could share the computer.
Participant Observer: When Participant #2 didn’t come, how did you feel?
Participant #1: I felt sad, but a little bit OK. I told him that I put his name in anyway.
Participant Observer: Anything else you would like to share?
Participant #1: No, this is all that I have to share.
Participant Observer: I noticed that participant #1 called you over to work together on the computer, but you didn’t go Why?
Participant #2: Because I was playing with someone else.
Participant Observer: How do you think participant #1 felt?
Participant #2: Sad, but OK.
(Participants #1 & 2, informal interview, March 4, 2010)

The findings described low numbers of social interactions within the non-dominant culture. Maybe this was the result of the non-dominant culture not wanting to be stigmatized for associating with students within their own culture and, conversely, the image associated with not having a disability. For instance, during the initial formal interviews between the participant observer and the student participants, each were asked to tell about their friends in the class. The conversation follows:

Participant Observer: Tell me about your friends in the class.
Participant #1: Um, they are doing well at school. They just need a little help. Some of them get m’s (met expectations) and some get p’s
(progressing). If you can be smart then you can make some friends. Participant #2: They’re nice, smart and don’t buy people and back me up if I’m going to get in a fight. They tell me to don’t fight just walk away. Participant #3: I have a whole bunch of friends there is like 29 and they are all great. So far I’m going to go to somebody’s house in a week. They are nice and smart and I really like that. (Participants #1, 2, & 3, formal interview, January 13, 2010)

As indicated by the three responses to the interview question, each of the student participants associated friendship with being smart. Therefore, if a student within the non-dominant culture interacted with students within their own culture, they could be stigmatized for having a disability. Conversely, this might suggest that if student participants within the non-dominant culture interacted with a student in the dominant culture there was a positive image associated with this relationship. In some instances, the students in the non-dominant culture might aspire to be like the students in the dominant culture.

Findings in January and March denoted Mrs. Ryan had nearly the same number of interactions with the students in the non-dominant and dominant cultures (See Table 4:2). This data revealed Mrs. Ryan initiated nearly the same number of interactions with the dominant culture and the non-dominant culture. For instance, at the beginning of each center time Mrs. Ryan would go over the directions for the day. She began by displaying the assigned centers on the overhead projector, while simultaneously giving the students verbal directions. Prior to the students going to their assigned centers, Mrs. Ryan would ask if there were any questions. It was during this time that students from both the non-dominant and dominant cultures would engage in dialogue with Mrs. Ryan. This could account for the nearly equal number of times Mrs. Ryan initiated interactions with students from both culture groups during the formal
leveled reading groups. In February participants #1 & 2 were in a reading group with Mrs. Ryan along with four other students from the dominant culture. Mrs. Ryan directed the students to open their books entitled, *The Northern Spotted Owl*. Mrs. Ryan directed the group to read silently, but she called on participant #2 to read his book aloud. As participant #2 began to read, Mrs. Ryan would ask probing questions about the story. Mrs. Ryan called on participant #1 to find the word in the story that describes animals that sleep during the day and are up at night. Participant #1 stated, “It means hunting”. Mrs. Ryan directed participant #1 to go back in the story and locate the answer. Mrs. Ryan compared her chinchilla to the animal in the story. Mrs. Ryan walked around the table calling on one student at a time to answer questions about the story. A male student from the dominant culture screamed out, “It means to sleep during the day and hunt at night.” A second student from the dominant culture stated, “It means to hibernate”. Mrs. Ryan told the students, “Your homework tonight is to find out what it means for an animal to sleep during the day and get up at night.” This illustrates that Mrs. Ryan initiated dialogue with both the non-dominant and the dominant cultures nearly the same number of times.

Findings indicated the total number of interactions between Mrs. Ryan and the dominant culture were slightly higher: Perhaps this can be attributed to the ratio of the number of students in the dominant culture to the number of students in the non-dominant culture (See Table 4:2). For instance, as the students were working in their assigned centers, Mrs. Ryan would walk around the classroom and randomly call on students to answer questions. It was at this time that she initiated dialogue with students from both the non-dominant and dominant culture groups. In February, Mrs.
Ryan was walking around the classroom and stopped at participant #1’s desk requesting to see his list of spelling words. Mrs. Ryan assisted participant #1 with adding prefixes and suffixes to the words to make new words. Mrs. Ryan went over to participant #2 and inquired about the spelling words asking if he understood the assignment. Mrs. Ryan stated, “What are you doing in gym and what are you doing in art? I want to see you use different suffixes with your words.” Mrs. Ryan went over to the desk of a student in the dominant culture and asked, “Let me see sixty words?” The student began to laugh, along with the entire class at Mrs. Ryan’s joke on the student.

During February, the teacher and the non-dominant culture and the teacher and the dominant culture had the same number of interactions (See Table 4:2). One possible explanation is that the teacher initiated more dialogue with the three student participants in the non-dominant culture to redirect them to remain on task or to provide these students with more general directions. Whereas, the students in the dominant culture were able to work independently of the teacher. For instance, in January, the teacher had to redirect student participants #1 & 2 to remain on task. Mrs. Ryan directed student participant #1 to sit up in his desk and not lay down during his silent reading center time and student participant #2 to stop walking around the class and remain on task. This might account for the equal number of interactions between the teacher and the two cultures considering the number of students in the dominant culture is greater than the number of students in the non-dominant culture.
Table 4:2  Patterns of Social Interactions

<table>
<thead>
<tr>
<th>Patterns</th>
<th>Jan</th>
<th>Feb</th>
<th>March</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC-NDC</td>
<td>21</td>
<td>22</td>
<td>26</td>
<td>69</td>
</tr>
<tr>
<td>NDC-DC</td>
<td>41</td>
<td>25</td>
<td>29</td>
<td>95</td>
</tr>
<tr>
<td>DC-T</td>
<td>12</td>
<td>9</td>
<td>12</td>
<td>33</td>
</tr>
<tr>
<td>T-DC</td>
<td>38</td>
<td>32</td>
<td>22</td>
<td>92</td>
</tr>
<tr>
<td>NDC-T</td>
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<td>16</td>
<td>7</td>
<td>39</td>
</tr>
<tr>
<td>T-NDC</td>
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<td>21</td>
<td>90</td>
</tr>
<tr>
<td>DC-DC</td>
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<td>10</td>
<td>10</td>
<td>34</td>
</tr>
<tr>
<td>NDC-NDC</td>
<td>3</td>
<td>6</td>
<td>6</td>
<td>15</td>
</tr>
</tbody>
</table>

NDC=Non-Dominant Culture/students with disabilities
DC=Dominant Culture/general education students
T= General Education Teacher

Formal and Informal Academic Interactions

Formal Academic Interactions was content driven and applied when the student was actually engaged in an assigned academic task, such as working on activities related to the learning centers or working in the leveled reading groups with the teacher.

Examples of formal academic interactions included:

1. After center time, Mrs. Ryan had the students remain in their assigned groups and she played jeopardy with the students to review for their basic math test.
Mrs. Ryan called on participant #2 to pick a category and he picked the category of addition. Participant #1 stated addition for 1 and all of his team members screamed because he called out the correct answer.

2. During the assigned leveled reading groups, Mrs. Ryan called on participant #1 to read aloud to her as the other students read along silently.

3. Participant #3 was working in the language arts center with a student from the dominant culture completing the question posted on the whiteboard:

   The first book was printed in 1452.
   How would your education be different if there were no books?

Informal Academic Interaction were conversational driven and included any dialogue related academic interactions that was not assigned as a task, such as a student asking another student a question about an assignment or a student asking the teacher about an assignment.

Examples of informal academic interactions included:

1. Student participant #2 was playing a game of Malachi with a student from the dominant culture. This student explained the directions of the game to participant #2.

2. Student participant #1 engages in dialogue with a student from the dominant culture about the directions to the complete the math assignment.

3. Participant #3 asks Mrs. Ryan a question about the second planet closest to the moon?
Patterns of Formal and Informal Academic Interactions

Findings revealed the greatest number of academic interactions occurred equally between the non-dominant culture and the dominant culture in January and February (See Table 4:3). This might explain why the student participants in the non-dominant culture initiated the greatest number of academic interactions with the students in the dominant culture, with the exception of the academic interactions between the teacher and the non-dominant culture. Perhaps the student participants in the non-dominant culture were not always confident about their academic abilities and depended on the students in the dominant culture to answer informal academic questions to get a better understanding of the assignment (See Table 4:3).

For instance, prior to center time, Mrs. Ryan would give directions to the entire class about the assigned centers. After the directions were given, the student participants in the non-dominant culture would ask the students in the dominant culture informal academic questions to make sure they understood the directions to the task, which is in the informal academic category (See Table 4:3). This could result in the student participants in the non-dominant culture learning to rely upon the students in the dominant culture to re-explain the directions to them.

Another possible example occurred in January when Mrs. Ryan was working with a guided reading group, consisting of five students including participants #1 & 2 of the non-dominant culture. Mrs. Ryan directed the students to get out their reading books. Participant #1 was not listening to Mrs. Ryan. Very soon after the directions were given, participant #1 leaned over to one side, pulled on the arm of a student in the dominant culture and, in a whispy tone, asked the student to explain the assigned
task. Participant #1 leaned over to the other side and, in a low tone, asked a different student in the dominant culture a question about the assignment. Mrs. Ryan directed the reading group to put away their books, because she believed that the assigned book was too easy for their group. Mrs. Ryan handed each student a new reading book and directed them to read the first two pages silently and write down some important details about the story. Mrs. Ryan went over to participant #1 and asked to see his writing. Mrs. Ryan read participant #1’s paper and began to ask him several questions to check on his comprehension. Mrs. Ryan directed participant #1 to review his answers again, which could be described as a formal academic activity.

The findings denoted the greatest number of academic interactions occurred equally in January and February between the teacher and the students in the non-dominant culture (See Table 4:3). Maybe Mrs. Ryan recognized students in the non-dominant culture needed more assistance than the students in the dominant culture and she was, therefore, responding to their needs.

For instance, immediately following center time, Mrs. Ryan began a lesson on the solar system (See Appendix O). Mrs. Ryan walked around the classroom to make sure all of the students had their notes from the previous lesson on the solar system on their desks. Mrs. Ryan went over to participant #2’s desk and gave him a second directive to take out his notes. Mrs. Ryan stated that, “If I go too fast, let me know. I will give you an extra set of typed notes.” This might suggest a reciprocal relationship exists between Mrs. Ryan and the student participants in the non-dominant culture. Mrs. Ryan’s belief centered on the idea that the students in the non-dominant culture needed extra assistance. For instance, Mrs. Ryan would often check to make sure the
participants in the non-dominant culture were prepared to work. This might suggest that the student participants in the non-dominant culture relied upon Mrs. Ryan to give them those extra reminders (See Table 4:3).

One of the questions on the final formal teacher interview exemplified the idea of Mrs. Ryan being more responsive to the needs of the students in the non-dominant culture. Mrs. Ryan explained why she felt these students needed extra support. She was asked to describe each participant as a learner. The conversation follows:

Participant Observer: How would you describe the participants in the non-dominant culture as learners?
Mrs. Ryan: I guess the biggest difference is to describe that they just need extra time to complete their assignments. They can learn just as well as any of the other students can. They just need a little extra time and not as much work.
(Mrs. Ryan, formal interview, May 13, 2010)

It may be students in the non-dominant culture depended on the attention and extra reinforcement given to them by Mrs. Ryan and students in the dominant culture. During the student participants’ final formal interview, the interviewer asked each student participant their feelings about working with Mrs. Ryan. This might indicate student participants in the non-dominant culture were aware they needed extra assistance from Mrs. Ryan and the students in the dominant culture. The conversation follows:

Participant Observer: How do you feel about working with your teacher?
Participant #1: I feel good.
Participant #2: She gives me hints on what we’re doing and stuff. OK, that’s it.
Participant #3: The teacher is really nice. If I have a problem she just comes up to me and when I raise my hand like five minutes later she just comes up to me. I don’t have to put my hands up and wait until she comes and more.
(Participants #1, 2 &3 formal interview, April 22, 2010)
The findings proposed the least number of academic interactions occurred between the students within the non-dominant culture in January through March. This might be indicative of the total number of academic interactions between the student participants within the non-dominant culture (See Table 4:3). The student participants in the non-dominant culture initiated the least number of academic interactions with the students within their own culture. Perhaps the students in the non-dominant culture didn’t view the students within their own culture as having strong academic abilities and, therefore, didn’t rely on these students for academic support. The participants in the non-dominant culture recognize that, in some instances, the students within their own culture had difficulty paying attention and remaining on task.

For instance, in February Mrs. Ryan announced that all of the students in the class could use their notes on the upcoming science test. During the time she was speaking, student participant #1 was up in his seat with his legs in the chair and had difficulty staying on task. Mrs. Ryan began to ask the students review questions for the test and they were all expected to call out their answers. Participant #1 would wait and call out the answers after the majority of the students had already answered each question correctly. Participant #2 didn’t attempt to answer any of the questions. Participant #3 was very quiet and was looking at the students in the dominant culture sharpen their pencils. None of the participants were on task.

The data revealed student participants in the non-dominant culture did interact when there were no academic tasks involved. One possible example took place in January when participants #1 & 2 stood in the middle of the classroom floor and were playing a game of airplane with their arms moving to imitate an airplane. The student
participants would take turns moving like an airplane with their arms going up in a flying motion. Similarly, on the same day, participants #1 & 2 were wrestling in the middle of the floor. This indicated the student participants in the non-dominant culture were more willing to interact with each other when they were not being asked to complete any academic task. These academic interactions occurred in January through March and yielded the lowest overall total of each culture group.

**Table 4:3 Patterns of Formal and Informal Academic Interactions**

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NDC= Non-Dominant Culture/students with disabilities
DC=Dominant Culture/general education students
T=Teacher

**Individual Student Participants Formal/Informal Academic Interactions**

The data explained in January and February student participant #2 of the non-dominant culture had the greatest number of formal and informal academic interactions with the teacher. Maybe he was more dependent on Mrs. Ryan for academic support
than student participants #1 & 3 within the same culture. Participant #2 had more interactions with the teacher and less with the students in the dominant culture and within his own culture. Participants #1 & 3 had an equal number of interactions with the teacher, which may suggest they were more independent with academic tasks (See Table 4:4). For instance, in January Mrs. Ryan was walking around the classroom and interacting with each of the center groups. Mrs. Ryan stopped at the game center and challenged student participant #2 to a game of Malachi. Mrs. Ryan started the game off by showing participant #2 how to set up the board and asked, “Who is going first?” Participant #2 stated, “I am going first”. As the game began participant #2 was told by the teacher that he was moving his game pieces in the wrong direction. Mrs. Ryan reminded the other center groups to lower their voices. During the game participant #2 and Mrs. Ryan were engaged in dialogue. Mrs. Ryan asked, “Do you have this game at home.” Student participant #2 responded “I have 15 games at home.” Mrs. Ryan quickly addressed the behavior of two male students in the dominant culture who were engaged in a verbal argument. Participant #1 was on the floor playing checkers with a male student in the dominant culture. Participant #3 was sharing his computer with a student in the dominant culture. Student participants #1 & 3 were able to work independently without the support of the teacher.

Mrs. Ryan started joking with participant #2 and asked, “Are you cheating?” Participant #2 had a very serious look on his face. Mrs. Ryan asked, “What is wrong?” Participant #2 responded, “Nothing.” Participant #2 lost the game to the teacher. Mrs. Ryan stated, “I rock”. Participant #2 returned to his seat and shouted, “I want to play a second game with you.” Participant #2 was on his way back to the game center, but
stopped at the desk of a male student in the dominant culture that was making crying noises. It turned out this student was playing a trick on student participant #2.

As participant #2 and the teacher began to play a second game of Malachi, he stated, “You are getting older, but I am getting younger. My neighbor who is old can do anything.” Mrs. Ryan laughed and announced to the class that the students were not to switch centers until her game of Malachi was over. Student participant #2 jokingly stated, “If I were the teacher you would have to pay me a dollar for losing.” At this time, there was a group of students in the dominant culture that turned around and began to listen to the conversation between the teacher and student participant #2. After the game was over, Mrs. Ryan announced to the class that it was time for everyone to switch centers. During the informal interview, the student participants were asked questions about their interactions during today’s center time. The conversation follows:

Participant Observer: How did you feel playing a game of checkers with your friend today?

Student Participant #1: I felt great because I always beat my sister in checkers and my parents and brother.

Participant Observer: Did you win the game?

Student Participant #1: Yes.

Participant Observer: How many times did you play?

Student Participant #1: We got to play three times.

Participant Observer: How did you feel playing Malachi with your teacher?

Student Participant #2: Happy, because I beat she and she gave me a free pencil.

Participant Observer: Anything else you would like to talk about that you did during the game of Malachi with Mrs. Ryan?

Student Participant #2: I played two games with my teacher today. The first game I played I lost against my teacher. The second game I won and it was a big tournament, because everyone was watching and wanting me to win and I won.

(Student Participants #1 & 2, informal interview, 1/20/10)
The findings offered in March that student participant #1 had the greatest number of interactions with the teacher. These interactions were in the category of informal academic interactions (See Table 4:4). Mrs. Ryan would often re-direct or re-explain an assignment to student participant #1. One example took place in the month of March: During center time, participant #1 was in the silent reading center and he kept talking with a student in the dominant culture. Mrs. Ryan reminded participant #1 that he was in the quiet area and was to read his book. The teacher asked participant #1 to give her a brief summary of the book he was reading. Participant #1 was hesitant at first, but he was able to provide details from the story. Later, during the informal interview, student participant #1 was asked a question about the interactions that occurred between him and the teacher. The conversation follows:

Participant Observer: During center time, Mrs. Ryan had to remind you to lower your voice and that you were supposed to be silently reading. Why is that?
Participant #1: Probably because people keep on talking in my group.
(Participant #1, informal interview, March 11, 2010)

The findings proposed in March many of the interactions between Mrs. Ryan and participant #1 were informal academic interactions. For instance, the following writing prompt displayed on the whiteboard:

On this day in 1847, inventor Alexander Graham Bell was born. Bell is probably best known for his development of the telephone. What do you think our telephone will be like in 20 years?

The students were all at their desk waiting for the teacher to give them the directions for the assigned centers for the day. Mrs. Ryan posted the centers on the overhead
projector. After she explained the centers, all of the students dispersed. Student participant #1’s first assignment was the language arts center. He was supposed to rewrite the paragraph about Alexander Graham Bell and answer the question using incursive writing. Participant #1 was writing very large and unrecognizable letters. He was explaining to his group that his assignment was complete. As Mrs. Ryan was walking around the classroom from center to center, she stopped at the language arts center. Mrs. Ryan read student participant #1’s paper and directed him to go back and rewrite the paragraph. The teacher explained to him that she was unable to read his writing.

During the formal interviews, Mrs. Ryan identified penmanship, handwriting and putting thoughts down on paper as areas of academic concern for student participant #1. She stated that participant #1 likes to rush through his work and she often had to have him write it over again. One possible explanation arose when Mrs. Ryan was asked to describe student participant #1’s academic performance. The conversation follows:

Participant Observer: You stated that student participant #1 rushes through his work. Is this still correct? Why?
Teacher: It is not as bad as it was near the beginning of the school year. I think participant #1 has learned to slow down and I will not accept work that looks like it’s been rushed through, so I make him do it again.
Participant Observer: You stated that participant #1 has difficulty taking information in and putting it down on paper. Is this still correct?
Teacher: Yes.
(Mrs. Ryan, final formal interview, 5/13/10)
Table 4:4 Individual Student Participants Formal/Informal Academic Interactions

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NDC=Non-Dominant Culture/students with disabilities  
DC=Dominant Culture  
T=Teacher  
CT=Column Total

Yousef/Student Participant #1’s Individual Academic /Social Interactions

The findings pointed out Yousef had a greater number of academic interactions in the classroom in February than in either January or March. In January he had the least number of academic interactions in the classroom. In January, Yousef had a greater number of social interactions in the classroom than in February or March and had the least amount of social interactions in March. These totals might indicate Yousef had far greater academic interactions in the classroom than social interactions (See table 4:5). Perhaps an explanation is that Yousef was sometimes off task and had to be redirected. However, he understood the importance of academic performance in the
classroom and was an active participant in his education (Teacher, final interview, 05/12/2010).

During the final formal interview, Yousef was asked to describe himself as a learner. The conversation follows:

Participant Observer: Describe yourself as a student.
Yousef: Well, I behave in school very well and I don’t talk a lot. Well, I eat breakfast everyday and whenever we have like some sort of assignment everyone has to be quiet. I am quiet.

Participant Observer: Describe your favorite subject in school.
Yousef: Math, its fun it has multiplication, division, and pluses and minuses which is fun.

Participant Observer: How do you feel about working with the other students in your class?
Yousef: I feel happy. Well, I do feel good about that too.
(Yousef, final interview, 4/22/10)

This might suggest Yousef was confident in his academic abilities in math and, conversely, enjoyed working with his classmates. The data revealed the overall total of academic interactions was greater than social interactions. Perhaps Yousef did value friendship and saw it as an important entity in the classroom. For instance, during the initial interview, Yousef was asked about the importance of friendship. Yousef described that a friend was someone who does well at school and might need a little help sometimes. Yousef talked about friends making you smarter and that, in order to be a good friend, people have to be nice, honest and tell the truth. Yousef discussed how he liked playing games with his friends, such as computer games, checkers and marbles. The conversation follows:

Participant Observer: How do you know if someone is a good friend? Tell me about your friends you have here.
Yousef: Um, I have a lot of friends.
Participant Observer: Tell me about them
Yousef: Um, they are doing well at school. They just need a little help. Some of them get m’s (met expectations) and some of them get p’s
(progressing with expectations)
Participant Observer: What makes a good friend?
Yousef: What makes a good friend is Abdallah (pseudonym).
Participant Observer: What makes a good friend? (Repeat)
Yousef: Oh, if you know how to make friends you can, um. If you know how
to make friends, you can be smart then you can make some friends like.
They can say “can I be your friend” and I will say “yes”. If they use you, you
can’t be friends.
Participant Observer: Are you a good friend?
Yousef: Yes.
(repeat question)
Yousef: Um, if someone is like being nice to people. People they are
being honest and telling the truth that’s how friends are.
Participant Observer: What kinds of school activities do you and your friend
do inside of the school?
Yousef: We play on the computers and we also play checkers and we play
board games. And we also play with those kinds of marble things. We play
with those.
(Yousef, initial interview, January, 11, 2010)

Table 4:5 Yousef’s Individual Academic/Social Interactions

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**Academic Interactions**: Included both formal and informal
academic interactions, anything related to academic tasks

**Social interactions**: Included non-academic interactions,
such as playing, talking about subjects unrelated to academic
tasks
Ali’s Individual Academic/Social Interactions

The Findings indicated in January, Ali had the least amount of academic interactions and the greatest amount of social interactions in the classroom than in February or March. One possible explanation for this was Ali being on winter break and being excited about returning to school. Findings suggested that Ali had the greatest amount of academic interactions in the months of February and March. This might suggest Ali had a greater number of academic interactions than social interactions in the classroom. This could be attributed to Ali liking and wanting to get along with his peers, but understanding the importance of academic achievement in school. For instance during the final formal interview Ali was asked to describe himself as a learner and he acknowledges himself as being smart and enjoying socializing with his peers. Ali enjoyed playing games, especially board games. Perhaps playing games allowed Ali to engage in oral dialogue with his peers. During the interview, Ali avoided questions that centered on his interactions with other students and the teacher in the classroom. This might suggest Ali was uncomfortable talking about his interactions. Ali described a good friend as being smart and not telling lies on others. The conversation follows:

Participant Observer: Tell me what type of student you are. Describe yourself as a learner?
Ali: I’m smart. That’s it.
Participant Observer: Describe your favorite subject in school. Tell me why?
Ali: Games, because we can play any game we want.
Participant Observer: What is your favorite game?
Ali: Malachi is my favorite game. I like going on the computers, because I can go on any website I want.
Participant Observer: How do you feel about working with other students in your class?
Ali: Can we skip it?
Participant Observer: How do you feel about working with the teacher?
Ali: Can we skip this one, too?
Participant Observer: In the initial interview you told me that a good friend is smart and no lying because they have something that you like. Do you still believe this? Do you still believe that a good friend does not lie and is smart?
Ali: Yes, I do.
(Ali, formal interview, April 22, 2010)

The findings indicated Ali’s total number of academic interactions was greater than his social interactions (See Table 4:6). Although Ali enjoyed playing and interacting with his peers, he appeared to have some difficulty with his peer relationships within the classroom. This was further evidenced by Ali’s response to a question in the final interview: “How do you feel about working with other students in the class?” Ali responds, “Can we skip it?” In January, Ali was sent to the back reading table because he had a problem with a male classmate. It appeared that the other male general education student put his binder where Ali’s boot belonged. He went to the back of the room and sat at the reading table by himself. Ali went up to the teacher’s desk and started looking through papers. He began to look through the transparencies on the overhead projector. Ali went over to the teacher’s cabinet and started erasing her poster. Ali started walking around the class and appeared to be unhappy. Ali followed the teacher around the classroom. Ali continued to walk around the class looking as if he were lost and didn’t know what to do. The teacher re-directed him to sit down. Finally, Ali sat down and two minutes later hopped right back up again. He continued to walk around the classroom with a very agitated facial expression. The teacher told Ali to sit down again. He went and stood near his desk and, two minutes later, was at the teacher’s desk again. Ali was unhappy with a male student in the dominant culture for putting his binder where Ali’s foot belonged.
During the informal interview, Ali stated that he did not consider this student his friend, because he was annoying and tells the teacher lies on him. Ali was asked to explain what happened between him and the other student in the classroom. The conversation follows:

Participant Observer: I noticed some things in the classroom and I want you to clarify them for me. What was the purpose of you wearing the hat in the class?  
Ali: My head was cold.  
Participant Observer: What difficulty were you having with your peer that was sitting next to you?  
Ali: He put his binder next to me. It was under my desk where I put my foot.  
Participant Observer: Do you consider this neighbor as your friend?  
Ali: No.  
Participant Observer: Is he your friend? Why?  
Ali: Because he is annoying and he lies a lot to the teacher and he just lies.  

(Ali, informal interview, January, 13, 2010)

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**Table 4:6 Ali’s Individual Academic/Social Interactions**

Khalid’s Individual Academic/Social Interactions

The findings presented in January indicated Khalid’s social interactions were greater than his academic interactions and, conversely, in February and March these numbers drastically declined. As indicated in February and March, Khalid had the
greatest number of academic interactions. The overall total might explain why Khalid had a greater number of academic interactions than social interactions in the classroom. The high number of social interactions in January could be attributed to Khalid just recently returning from winter break and being a fairly new student at his current school (See Table 4:7). The data revealed Khalid understood many of the students in his class had been at the research site since the initial opening of the school. The decline in the number of social interactions may be an indication that, although Khalid liked to interact and socialize with his peers, academic achievement is important to him. For instance, in the final interview, Khalid was asked to describe himself as a student. Khalid stated that he is active and funny in class. Khalid described his favorite subject as science and said he especially enjoyed studying the planets. Khalid explained that he might be a teacher or a scientist one day. He enjoyed working with his peers, especially making jokes while they were completing their assigned work. Khalid described a good friend as being best friends forever (BFF) and not telling lies. It could be that Khalid enjoyed socializing with his peers, however, saw the importance of completing his class assignments. The conversation follows:

Participant Observer: Tell me what type of student you are? Describe yourself as a student? 
Khalid: Um, sometimes I am a little active and I like to be funny sometimes and that’s it.
Participant Observer: Describe your favorite subject in school and tell me why?
Khalid: Science, because I love learning what new planets there are. Pluto is a planet, which is true, and I want to be a scientist maybe or a teacher and scientist like math and I wasn’t really good at it now I like math. Thank God I have a math teacher.
Participant Observer: How do you feel about working with other students in your class?
Khalid: Um, great, cause there is a lot of stuff to do. You can have fun and make jokes and continue doing your work. While we are doing that we can
make jokes and do a lot by ourselves. We just have fun.
Participant Observer: In the initial interview you told me a good friend was someone who doesn’t lie or tell the truth, do you still think this way?
Khalid: Like girls say BFF forever and his name is Moussa (pseudonym) and he really does not lie. I can tell. I go to his house and he tells me at school what he has and I go to his house and I see absolutely everything he says.
Participant Observer: So, describe a good friend for me again. Tell me what a good friend is? Give me a definition. Before you said a good friend does not lie. Is this still true?
Khalid: Well, he is really nice. Oh, a good friend is ….Well, there is this kid in my class; oh my God he said he went to Cedar Point on spring vacation and it wasn’t open.
(Khalid, final interview, April 22, 2010)

The findings suggested in January, Khalid’s total number of social interactions was greater than the total number of academic interactions. Perhaps Khalid wanted to fit in with his peers. For instance, in the initial formal interview, Khalid was asked about the importance of friendship. Khalid described himself as being friends with all of the students in the class. Khalid described a good friend as being polite. The conversation follows:

Participant Observer: Tell me about your friends you have here?
Khalid: I have a whole bunch there is like 29 and they are all great. So far I’ve going to go to somebody’s house in about a week. That I just met and they are all nice and I just really like that.
Participant Observer: What makes a good friend?
Khalid: If they like be polite. Sometimes if they kind of you will know who they are now and well that’s how you know if they are a good friend.
Participant Observer: Are you a good friend?
Khalid: Yes.
Participant Observer: How do you know if someone is a good friend?
Khalid: If they like be polite. Sometimes if they kind of be mean you will know who they are now and well that’s how you know if they are a good friend.
(Khalid, initial interview, January 13, 2010)
### 4.7 Khalid’s Individual Academic/Social Interactions

<table>
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<tr>
<th>Participant #3</th>
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<td>84</td>
</tr>
</tbody>
</table>

### Negative Case Analysis

Negative Case Analysis is a critical element in building trustworthiness. Lincoln and Guba (1985) purports it is synonymous with building trust in a ethnographic qualitative research study. The purpose of this method is to discard any exceptional cases by revising the findings until there are no more existing exceptions. After the researcher of this study analyzed the data, several negative cases were identified. The first negative case was identified through the observations and interviews of the students in the non-dominant culture and their engagement in very limited amounts of social interactions with each other even when given the opportunity. Even though this was true for student participants #1 & 2, there were still indications of low incidences of interactions. However, student participant #3 never interacted either socially or academically throughout the span of the study. Perhaps this was due to his assignment to a different reading group, making it difficult for him to interact with the other student participants. One other possible explanation is he did not see the importance of interacting and building friendships with the students within his own culture. For
instance in January student participants #1 & 2 were in the middle of the floor of the classroom imitating an airplane with their arms spread out moving in a circular motion. Although there were a few interactions between participants #1 & 2 student participant #3 never interacted with participants #1 & 2 during the span of the study.

Another possible negative case was identified during the final formal interview between the researcher and student participant #2. Student participants #1 & 3 were forthcoming with their answers to the questions; however, participant #2's answers were ambiguous. In many instances, he opted to skip several important questions, such as “How do you feel about working with other students in your class?” and “How do you feel about working with the teacher?” If student participant #2 would have answered these questions, the data could have yielded different conclusions.

Similarly, the findings revealed the three student participants interacted socially with their general education peers and understood the importance of academic achievement in school. However, a possible negative case was identified and involved student participant #2 experiencing some difficulties getting along socially with his general education classmates; whereas, student participants #1 & 3 displayed more positive social interactions. The researcher utilized negative case analysis to ensure that all exceptions to the hypotheses were tested. Kidder (1981) states that insistence on a zero exceptional level may be too rigid a criterion (Kidder 1981, as cited in Lincoln and Guba, 1985), therefore, the researcher of this study searched for all exceptions until the level of acceptability was achieved.
Summary of Chapter 4

Chapter four presented the identification of the key events, choosing of the key events, summary of the key events and the individual findings were presented to describe the social interactions that exist within a 5th grade level inclusive classroom and the effect on academic achievement. The raw data was constructed into numerical charts from the observations and interviews. In chapter five, the researcher discussed the four research questions which have driven this study.
Chapter 5: Discussion of Findings

Where Have We Been?

The theoretical beliefs in education today are derived from two paradigms, the empirical paradigm and the interpretive paradigm (Oglan, 1999). The views of John B. Locke (1632-1714) were aligned with the empirical paradigm. Locke believed that human behavior was based upon the mechanistic approach and saw human beings incapable of internalizing experiences. Later, the behaviorist theory grew out of this paradigm. Behaviorists believed that learning took place in individual parts and this was evidenced in the Factory Model of Education, which emphasized drill and practice, regurgitation of facts, rewards and consequences, and the stimulus - response model. The views of behaviorists such as Pavlov, Watson, Thorndike, and Skinner became popular during the era of the empirical paradigm.

The views of Jean Jacques Rousseau (1712-1778) were in direct contrast to those of Locke and the behaviorist theory and closely aligned with the interpretive paradigm. Rousseau saw students as active and changing humans, which correlates with the organismic philosophy of the sum being of greater value than the individual parts. The theorists of this time believed that students needed to be given opportunities to engage in dialogue and be active participants in their own education. The interpretive paradigm had an influence on the theories of Jean Piaget, Lev Vygotsky and John Dewey.

Lev Vygotsky (1962) focused on the social nature of learning. He believed that a student’s cognitive development could not be separated from its social context. Vygotsky (1962) believed students should use tools to navigate their social settings. He
believed each child should be nurtured individually. Vygotsky purported that social growth preceded development while Piaget believed development preceded social learning. Vygotsky believed cultural growth happens twice: once on the social spectrum, between people and twice at the individual level, internally. Vygotsky's theory centers on three ideas: language, dialogue and the Zone of Proximal Development (Vygotsky, 1962 as cited in Clabaugh 2007).

John Dewey (1916) focused on connecting learners through the social processes of education. He believed that children must be given opportunities to develop critical thinking and problem-solving skills. Dewey's theory centers on using choice, voice, prior knowledge, reflective learning, and experiences in the classroom. Dewey believes, given opportunities, students will learn. However, in order for students to make internal connections, formal education must exist. He insists students must be encouraged to manipulate and discover new ideas in the school setting. Dewey believes in order for students to develop personally and socially, they must be allowed to make choices and use their voices in the classroom (Dewey 1916, as cited in Ornstein and Levine p. 82).

Where Are We Going?

Years ago, students with disabilities were treated unfairly and perceived as inadequate. Many of these students were placed in institutions because members of society felt they could only learn so much and, in many instances, these experiences were non-academically related. Society believed that students with disabilities were best educated separately from their peers. Today, as a result of state and federal laws and individual court cases, students with disabilities are able to be educated alongside of their general education peers.
Inclusion has played an important role in the lives of students with disabilities. Inclusion is both a philosophy and a practice. The philosophy of inclusion is the belief all students with disabilities will grow both cognitively and socially, with the hope all students will be an integrated part of the learning community (Dupree, 2006). The practice of inclusion has its roots in Public Law 94-142, the Education for Children Handicapped Act (ECHA) of 1975. Later revised in 1991, it became known as the Individuals with Disability Education Act (IDEA), which mandates that all students with disabilities are placed in their least restrictive environment. Major components of inclusion include the way the teacher structures the classroom and the teacher’s style of teaching, both of which are directly related to the teacher’s theoretical beliefs about inclusion. Teachers who believe in the philosophy of inclusion become facilitators of education and their students, in turn, become collaborators in their own education. Proponents of inclusion believe students in an inclusive classroom show an increase in their academic and social progression.

**Theoretical Perspective**

The purpose of this study was to examine what social interactions existed within a 5th grade level inclusive classroom and the effect on academic achievement. The theoretical beliefs of educators are based upon their own educational experiences and many of these experiences were derived from ideas developed during the period of the empirical paradigm (Oglan, 1997). An integrated classroom can be productive if the teacher is able to develop their own theoretical beliefs about inclusion, connecting them to their teaching style and how the students learn. Controversies surrounding inclusion continue to arise; however, the focus is on the importance of academic achievement in
this setting. The theories of Lev Vygotsky and John Dewey support the principles of an inclusive environment.

Lev Vygotsky’s theories of Social Development and the Zone of Proximal Development (ZPD) were displayed in the 5th grade level inclusive classroom through cooperative learning groups and leveled reading groups. During the cooperative learning groups, the students were encouraged to play an active role in their learning and were seen as collaborators. For instance, during one of my observations, the teacher grouped the students in sets of fives and led a game of math jeopardy on the whiteboard. The students were broken into heterogeneous groupings; therefore, students of all ability levels were in each group. The teacher would write a problem on the board and give each group the opportunity to discuss the answer within their groups. The teacher allowed each of the groups to assign roles, such as a writer, speaker, timer, sergeant at arms and a student to hold up the board. Then the teacher would ask if any of the groups had the correct answer. One of the group members had to explain how the answer was derived. This cooperative learning activity aligns with Vygotsky’s idea of collaborative learning which allows students to interact with and understand their classmates by working together and engaging in dialogue to acquire new skills (Learning Theories, 2010).

The Zone of Proximal Development (ZPD) was evident in the 5th grade inclusive classroom during the leveled reading groups. For instance, Mrs. Ryan would group the students according to their actual reading levels during the teacher directed reading. She would guide them through the text, which was instructing at the student’s potential reading levels. Another way the ZPD was evident: When the students with special
needs were assigned to center groups, they would ask their peers questions about the assignment or specific questions about the text.

During one of my observations, Mrs. Ryan was engaged in a leveled reading group, which included student participants #1 & 2. This correlates to Vygotsky’s idea of students learning more by interacting with a more knowledgeable person, such as the teacher. Mrs. Ryan asked the students in the group questions about the main character in the text, such as, “How do you know the student was smart.” Participant #2 responded, “He goes home and does his homework.” The teacher talked about the character in the book. She used an example from the book about Julie being smart and knowing all of the answers on the test. Student Participant #1 stated, “My mom does not like me to go and swing after school”. The teacher continued to ask probing questions, such as, “How does Julie feel?” One student screamed out “embarrassed.” The teacher stated that one of the signs of being embarrassed is the cheeks turning red. She would ask the students what they thought was occurring throughout the text, what they thought would happen next and what was going to happen at the conclusion of the text. These discussions ultimately led to extended conversations and many students expressing their ideas. Student participant #1 was engaged and on task throughout the lesson. Student Participant #2 was very eager to answer the questions.

John Dewey’s Theory of Education was evident in the 5th grade level inclusive classroom, through learning centers and class discussions. During the learning centers, the students were encouraged to make their own choices and were able to choose books of interest during the quiet reading center. For instance, during one of my observations, student participant #1 was working at the reading center. He and one
of his general education peers were engaged in a conversation about a book. One of the students asked, “What do you think this book is about?” Student participant #1 stated, “I think it is about a girl.” Both of these students were engaged in positive dialogue about the book and were on task.

Also during center time, the students were able to choose between multiple activities at each learning center. For instance, during the computer center time, the students were able to choose an activity they felt would enhance their own learning. The students were encouraged to use their voices in class, especially during formal and informal academics. Although there was evidence of a structured writing program called “The Daily Five” being utilized in the classroom, the writing center motivated the students to be creative and express their ideas.

Dewey’s idea of students being reflective learners was evident in the classroom. Mrs. Ryan emphasized that each student be reflective during small group and whole group discussions. For instance, during the reading groups, the students were asked to think about what was happening in the text, before answering questions and to connect these thoughts to their own experiences. When educators set the stage for students to connect prior knowledge with previous experiences to any learning situation, authentic learning occurs. During whole group discussions, Mrs. Ryan asked the students to think about their answers and why they chose them. For instance, the class was doing a lesson on the solar system. The teacher asked the students several questions such as, “Does space ever end?” A general education student asked the class, “How does the sun form?” This led to a very engaged discussion. Vygotsky (1978) states this is the process of generative thinking, which refers to the process in which a student
generates a thought that leads to another thought, which often occurs in class discussions. Mrs. Ryan asked the students several questions about the sun. Afterwards, she drew a diagram on the board and asked the students to draw this figure on their papers. Mrs. Ryan asked the class, “What is the name of this figure?” One of the students stated, “A concept map.” The teacher asked the students to list four things they learned about the sun.

**Research Questions Revisited**

This study was guided by four research questions which are addressed separately:

*What social interactions do students with disabilities have with their general education peers?*

My study showed students with disabilities initiated the greatest total number of interactions between themselves and their general education peers. Students with disabilities were trying to be liked and accepted by their general education peers. The number of interactions initiated by the general education students and the students with disabilities had an increase during the months the study was conducted. Socially, the general education students enjoyed and wanted to establish positive interactions with their disabled classmates. The number of interactions steadily increased over the three-month observation span and was closely aligned between both culture groups of students. A potential reciprocal relationship existed between the students with disabilities and their general education peers. The data also indicated interactions might have extended beyond the classroom.
What social interactions do students with disabilities have with their teachers?

My findings indicated the teacher had nearly the same number of interactions with the students with disabilities compared with their general education peers. From a social perspective, the teacher walked around the classroom and engaged and initiated interactions with both cultures of students. The total number of interactions between the teacher and the general education students was greater than the total for the interactions between the teacher and the students with disabilities. Perhaps the total was greater because of the ratio of general education students to students with disabilities. During two of the months of observations, the findings suggest the teacher had the same number of interactions with students with disabilities and their general education peers. For instance, the teacher initiated dialogue with the students with disabilities by keeping them on task and providing general directions to them.

What social interactions do students with disabilities have with their special education peers in an inclusive classroom?

My data revealed the least number of social interactions occurred between students with disabilities. The low number of interactions between students with disabilities could be the result of the students in this culture group being aware of their own disabilities and not wanting to be stigmatized for associating with students within their own culture and the image associated with not having a disability. In some instances, the students with disabilities may have aspired to be like their general education peers. The least number of social interactions occurred between the students with disabilities and their peers with disabilities. Each student in the class was
assigned to a reading group based upon their reading level which would have made it difficult for students with disabilities to interact if they were in three different groups.

What impact do social interactions have on the student’s academic achievement in an inclusive classroom?

My findings showed the greatest number of academic interactions occurred between the students with disabilities and their general education peers. The students with disabilities were not always confident about their academic abilities and depended on their general education peers to answer informal academic questions to gain a better understanding of the assignment. Also an equal number of academic interactions occurred between the teacher and the students with disabilities. The students with disabilities relied upon the teacher to give them extra reminders to complete their assignments and the teacher felt these students needed the extra academic support. The teacher’s responsiveness to the needs of the students was exemplified in the final formal teacher interview. The least number of academic interactions occurred within the culture of the students with disabilities. These students didn’t view the students within their own culture as having strong academic abilities and, as a result, didn’t rely on them for academic support. However, the students with disabilities did interact with students within their own culture when no academic tasks were involved. One possible explanation is the students with disabilities enjoyed interacting with students within their own culture, but understood that students within their own culture might be experiencing the same academic difficulties, so they chose to interact with their general education classmates for academic support.
**Small Scale Implications**

This study has important contributions ranging from a small scale to a wider scale. This study could allow students with disabilities the opportunity to understand what kinds of interactions they have in the classroom and how it impacts their academic achievement. This study could allow the teacher the opportunity to identify her beliefs about inclusion and how these beliefs correlate to instructional practices in the inclusive classroom and impact inclusive instructional practices in the future. In this qualitative ethnographic research study, there was no intervention utilized and the teacher was not required to change any of her belief systems. The data utilized in this study was taken from observations and interviews and allowed for reflections of ideas.

The school district in which the study was conducted could benefit from the study’s findings by making decisions regarding ways to improve inclusive practices, from professional development, parent workshops, and the development of inclusive instructional strategies. The school district could benefit from the teachers attending workshops on how to enhance social and academic instructional practices in the general education classroom and school.

**Wider Scale Implications**

This study can benefit the research community, other school districts and educational policy makers. This study can assist the research community because it specifically looks at the effect of social interactions that exist in an inclusive setting. This study can add to the field of existing research on inclusion. Additionally, other researchers will be able to utilize the data in this study to enhance their own studies. The methodology of this study can be utilized to enhance other existing literature on
inclusion. This study’s contribution to the scholarly literature is in the methodology utilized. Other districts could benefit from this study by examining how their inclusive classrooms are set up to facilitate social interactions and increase academic achievement. These districts can also provide opportunities for professional development for their educators. Educational policymakers can benefit from this study by examining the inclusive practices that enhance academic achievement on a wider scale.

Wondering Questions

This study demonstrated some important information regarding the social interactions of students with disabilities in a 5th grade inclusive classroom and its effect on academic achievement. However, some lingering questions were discovered throughout the study that was not answered:

1. I wonder if I had spent additional time in the field observing, would it change the findings? During the first several observations in the classroom, the students appeared to be concerned with the presence of the participant observer; therefore, the observations appeared to be staged.

2. There are twenty-nine students in the classroom, nine of whom are girls. I wonder if the ratio of girls to boys in the classroom had been greater, would the kinds and numbers of interactions have been different? Many times throughout the research study the student participants interacted with the boys in the class. Two of the participants did not have girls in their leveled reading group, so interactions between these students were minimal.
3. The least number of interactions occurred between the students with disabilities. I wonder what would happen if the students in this culture group were paired up with one another. The students with disabilities did not seek out social or academic interactions with their peers within their culture group.

**Future Research**

This study examined the formal and informal academics and the social interactions in an inclusive classroom, some concerns were discovered that were not addressed which offer areas for future research opportunities. The results showed students with disabilities initiated the greatest number of interactions between themselves and their general education peers. The number of interactions initiated by the general education students and the students with disabilities increased each month. These findings denoted a potential reciprocal relationship existed between these two student cultures. The data indicated these interactions might extend beyond the classroom. Further research is needed to examine the kinds of relationships that exist beyond the classroom between students with disabilities and their general education peers.

The findings showed the teacher initiated nearly the same number of interactions with students with disabilities compared with their general education peers. During two months of the observations, the findings suggest the teacher had the same number of interactions with students with disabilities and their general education peers. Further research is needed to examine which interactions were useful for supporting academic achievement.

The data revealed that the least number of social interactions occurred between students with disabilities. The low number of interactions could be the result of the
students in this culture being aware of their disability and not wanting to be stigmatized for associating with students within their own culture and the positive image associated with not having a disability. Future research is needed to examine why students with disabilities feel they are on the lower hierarchy of learning in the classroom.

The findings indicated the greatest number of academic interactions occurred between the students with disabilities and their general education peers. The students with disabilities were not always confident about their academic abilities and depended on their peers and teacher to answer informal academic questions to gain a better understanding of the assignment. The least number of academic interactions occurred within the culture of the students with disabilities. These students didn’t seem to view the students in their own culture as having strong academic abilities; therefore, they didn’t look to them for answers. However, the students with disabilities did interact with students within their own culture when no academic task was involved. Future research is needed in this area to examine why students with disabilities did not see the importance of academically interacting with peers within their own culture.

This research study utilized a cluster of three students in a 5th grade level inclusive general education classroom. This study could be extended to examine multiple grade levels of students. The students could either be in preschool, middle school or high school, where social interactions are a very important component of these school-aged students.

The methodology utilized in this study was an ethnographic qualitative study with a case study format. This study could be extended to include an ABA intervention design in two ways: Initially, the teachers could be given professional development
opportunities to assist them in developing inclusive practices and, at the end of the study, determine if the intervention were more effective and its effect on academic achievement. The researcher can apply an intervention by having the teachers facilitate social interactions between students with disabilities and their general education peers and, at the end of the study, determine if the intervention was more effective and its effect on academic achievement.

**Conclusion**

This ethnographic qualitative research study designed with a case study format explored the social interactions of students with disabilities in an 5th grade inclusive classroom and its effect on academic achievement. The theoretical framework allowed the researcher to examine the social interactions of students with disabilities with their general education peers through a different set of lenses. Several theorists proposed that social interactions are a vital component of the inclusive classroom. They allow students the opportunity for active participation, dialogue and growth, as described in Lev Vygotsky’s examination of the social nature of learning in education. John Dewey focused on connecting learners through social processes in education. Albert Bandura applied his social learning theory to education.

According to the observations and interviews of the three participants observed, social interactions in an inclusive classroom do impact academic achievement. Participant #1 was confident in his academic abilities and, conversely, enjoyed working with his peers. This participant’s overall total of academic interactions was greater than his total of social interactions. Participant #2 liked getting along with his peers and saw the importance of academic achievement in school. This participant’s overall total of
academic interactions was greater than his total of social interactions. Participant #3 liked to interact and socialize with his peers and academic achievement was important to him. While the data supporting the student participants’ social interactions varied, the underlying conclusion of the data in the research study is that social interactions of students with disabilities do impact their academic achievement. The findings of this study provided several themes that revealed the social interactions of students with disabilities in a 5th grade inclusive classroom and the effect on academic achievement.

**Summary of Chapter 5**

In chapter five a brief summary was discussed and the findings were correlated to the evolution of the field of special education and its impact on current ideas and practices in special educations, particularly that of inclusion. The results from an analysis of observations and informal and formal interviews were presented as a correlation to the research question. Data was categorized into a discussion of this study, including a theoretical perspective, research, small and wider scale implications, wondering questions, future research, conclusion and summary.
Appendix A

THE SOCIAL INTERACTIONS OF STUDENTS WITH DISABILITIES IN A 5TH GRADE LEVEL INCLUSIVE CLASSROOM AND THE AFFECT ON ACADEMIC ACHIEVEMENT

By

Principal Investigator (PI): Estella Marshall

Purpose:
You are being asked to allow your child to be in a research study conducted by Estella Marshall from Wayne State University. This study will be conducted at a Public School District. The purpose of this study is to describe the social interactions between students with special needs and their peers and teachers and the affect on academic achievement. Your child was chosen to participate in the study because he/she is a student identified as being in the 5th grade inclusive classroom. Please ask any questions you may have before agreeing to be in the study.

Study Procedures:

1. If you decide to allow your child to take part in the study, your child will be observed and may be asked to explain their social interactions with the other students in their classroom.

2. The students will be asked questions about their social interactions in the classroom. Your child has the option to only answer questions that they want to answer. You are free to withdraw your child from the research study at any time.

3. The students that will be utilized in this study will have the following characteristics:

   All of the students will attend the research site:
   1. The students will be identified as a special education student as determined by the Public School District.

   2. All of the students will be included in an inclusive 5th grade inclusive classroom setting.

   3. There will be a total of 25-28 students participating in this study from your child’s classroom.

   4. The study will take place over a four month span. A total of 20 observations will be conducted only in their
classroom. These observations will range from 30 to 50 minutes each as dictated by the activity. Observations will focus on the social interactions of students with special needs with their peers and teachers and how it affects their academic achievement. No, there will not be no collection of classroom assignments, but I may ask the teacher about your child’s behavior. The data collected from the direct observations will be recorded in the principal investigator’s (Estella Marshall) notebook.

Benefits
There may be no direct benefits for your child; however, information from this study may benefit other children now or in the future. This study will allow classroom teachers, educational arena, and society to determine the effect that social interactions have on students with special needs academic achievement in the general education classroom.

Risks: There are no known risks at this time to your child for participation in this study. The following information must be reported to the appropriate authorities if at any time during the study there is concern that:

1. child abuse or elder abuse has possibly occurred

Study Costs

2. There are no costs to you or your child to participate in this study.

Compensation

3. You or your child will not be paid for taking part in this study.

Confidentiality:
No one will be able to determine who I am writing about. I will be the only person to have access to all of the information. All information collected about your child during the course of this study will be kept confidential to the extent permitted by law. All information collected about your child during the course of this study will be kept without any identifiers. The Human Investigation Committee (HIC) at Wayne State University or federal agencies with appropriate regulatory oversight (Office for Human Research Protections [OHRP], Office of Civil Rights [OCR], etc.), may review your child’s records.

Voluntary Participation /Withdrawal:
Your child’s participation in this study is voluntary. You are free to withdraw your child at any time. Your decision about enrolling your child in the study will not change any present or future relationships with Wayne State University or its affiliates, your child’s school, your child’s teacher, your child’s grades or other services you or your child are entitled to receive.
QUESTIONS

If you have any questions about this study now or in the future, you may contact Estella Marshall. If you have questions or concerns about your rights as a research participant, contact the Chair of the Human Investigation Committee. If you are unable to contact the research staff, or if you want to talk to someone other than the research staff to ask questions or voice concerns or complaints.

Participation:
If you do not contact the principal investigator (PI) within a 2-week period, to state that you do not give permission for your child to be enrolled in the research study, your child will be enrolled into the research. You may contact the PI (Estella Marshall).

Email address:

Phone number:

Address:

If you do not wish to have your child participant in the study, you may fill out the form and return it to your child’s teacher.

I do not allow my child _____________________________ to participate in this research study.

Name

Printed Name of Parent

Signature of Parent               Date
Appendix B

Social Interactions

THE SOCIAL INTERACTIONS OF STUDENTS WITH DISABILITIES IN A 5TH GRADE LEVEL INCLUSIVE CLASSROOM AND THE AFFECT ON ACADEMIC ACHIEVEMENT

By

Principal Investigator (PI): Estella Marshall

Purpose:
You are being asked to allow your child to be in a research study conducted by Estella Marshall from Wayne State University. This study will be conducted at Public School District. The purpose of this study is to describe the social interactions between students with special needs and their peers and teachers and the affect on academic achievement. Your child was chosen to participate in the study because he/she is a student identified as being in the 5th grade inclusive classroom. Please ask any questions you may have before agreeing to be in the study.

Study Procedures:

If you decide to allow your child to take part in the study, your child will be observed and may be asked to explain their social interactions with the other students in their classroom.

1. The students will be asked questions about their social interactions in the classroom. Your child has the option to only answer questions that they want to answer. You are free to withdraw your child from the research study at any time.

2. The students that will be utilized in this study will have the following characteristics:

   All of the students will attend the research site:

3. The students will be identified as a special education student as determined by the Public School District.

4. All of the students will be included in an inclusive 5th grade inclusive classroom setting.
5. There will be a total of 25-28 students participating in this study from your child’s classroom.

6. The study will take place over a four month span. A total of 20 observations will be conducted only in their classroom. These observations will range from 30 to 50 minutes each as dictated by the activity. Observations will focus on the social interactions of students with special needs with their peers and teachers and how it affects their academic achievement. No, there will not be no collection of classroom assignments, but I may ask the teacher about your child’s behavior. The data collected from the direct observations will be recorded in the principal investigator's (Estella Marshall) notebook.

Benefits

There may be no direct benefits for your child; however, information from this study may benefit other children now or in the future. This study will allow classroom teachers, educational arena, and society to determine the effect that social interactions have on students with special needs academic achievement in the general education classroom.

Risks: There are no known risks at this time to your child for participation in this study.

The following information must be reported to the appropriate authorities if at any time during the study there is concern that:
child abuse or elder abuse has possibly occurred

Study Costs
There are no costs to you or your child to participate in this study.

Compensation
You or your child will not be paid for taking part in this study.

Confidentiality:
No one will be able to determine who I am writing about. I will be the only person to have access to all of the information. All information collected about your child during the course of this study will be kept confidential to the extent permitted by law. All information collected about your child during the course of this study will be kept without any identifiers. The Human Investigation Committee (HIC) at Wayne State University or federal agencies with appropriate regulatory oversight (Office for Human Research Protections [OHRP], Office of Civil Rights [OCR], etc.), may review your child’s records.
Voluntary Participation /Withdrawal:
Your child’s participation in this study is voluntary. You are free to withdraw your child at any time. Your decision about enrolling your child in the study will not change any present or future relationships with Wayne State University or its affiliates, your child’s school, your child’s teacher, your child’s grades or other services you or your child are entitled to receive.

Questions:
If you have any questions about this study now or in the future, you may contact Estella Marshall. If you have questions or concerns about your rights as a research participant, contact the Chair of the Human Investigation Committee. If you are unable to contact the research staff, or if you want to talk to someone other than the research staff to ask questions or voice concerns or complaints.

Participation:
If you do not contact the principal investigator (PI) within a 2-week period, to state that you do not give permission for your child to be enrolled in the research study, your child will be enrolled into the research. You may contact the PI (Estella Marshall).

| Email address: |
| Phone number: |
| Address: |

If you do not wish to have your child participant in the study, you may fill out the form and return it to your child’s teacher.

I do not allow my child _______________________________ to participate in this research study.

Name

________________________
Printed Name of Parent

________________________
Signature of Parent        Date
Appendix C

Oral Assent Form

(Ages 7-12)

TITLE: SOCIAL INTERACTIONS

STUDY INVESTIGATOR: ESTELLA MARSHALL

WHY AM I HERE?

This is a research study. Only children who want to take part are included in this study. You are being asked to be part of this study, because I want to observe you and the other students in your classroom. A research study is a way for people to learn more about a subject. The subject that we are trying to learn more about is what kind of ways do students work, play and talk to each other in the classroom. Please take time to think about if you want to be in this study. Talk to your mom and dad about it and be sure to ask questions about anything you don’t understand.

Why are they doing this study?

This study is being done to find out what kinds of ways students who get help in the classroom act with the other students who do not get help and how they act with their teachers.

What will happen to me?

You will be observed only in your classroom talking and playing with your classmates. I will not observe you anywhere else. I may need to ask you some questions, so I can make sure I understand what you are saying and doing.

How long will I be in the study?

You will be in the study for four months. You will be observed from 30-50 minutes each time. You will be observed only in your classroom.

Will the study help me?

The information from this study will not help you, but it may help all children in schools everywhere.
Will the study hurt?

The study will not hurt you at all. I will not single out you in any way while I am observing you. However, as I previously stated I may need to ask you a question about my observation to make sure my observations are true.

Do my parents or guardians know about this? (If applicable) This study was explained to your parents/guardian and they said that you could be in it. You can talk this over with them before you decide if you want to be part of the study.

What about confidentiality? We will keep everything private. We will not share any information.

What if I have any questions? For questions about the study please call Estella Marshall. If you have questions or concerns please let your parents know and they will contact Estella Marshall.

Do I have to be in the study? You don’t have to be in this study if you don’t want to or you can stop being in the study at any time. No one will be angry if you decide to stop being in the study.

AGREEMENT TO BE IN THE STUDY

Your signature below means that you have read the above information about the study and have had a chance to ask questions to help you understand what you will do in this study. Your signature also means that you have been told that you can change your mind later and withdraw if you want to. By signing this assent form you are not giving up any of your legal rights. You will be given a copy of this form.

** Use when participant has had consent form read to them (i.e., illiterate, legally blind, translated into foreign language).
Appendix D

Behavioral Research Informed Consent

Principal Investigator (PI): Estella Marshall

Purpose

You are being asked to be in a research study conducted by Estella Marshall from Wayne State University. This study will be conducted at Public School District. The purpose of this is to describe the social interactions between students with disabilities and their peers and teachers and the affect on academic achievement. You were chosen to participate in this study because you meet the following criterion:

1. You are a teacher in a 5th grade level inclusive classroom.

2. You are a teacher in the research site.

3. You have a cluster of three students receiving special education services.

4. The estimated number of teacher participants is 1. The number of students with disabilities is 3. The number of general education students is approx., 25-28.

5. Please read this form and ask any questions you may have before agreeing to be in the study.

Study Procedures

If you agree to take part in this research study, you will be asked to participate in two formal interviews about the academic and behavioral progress of each student with disabilities. This will allow the researcher to build an academic and behavioral anecdotal profile for each of the students with disabilities. I will not collect any academic assignments. An example of the questions that will be utilized in the interview are to tell me about your class? The questions at the end of the study will be based upon the information collected during the study. These interviews will take place at the beginning and end of the research study. You have the option of not answering any questions at any time and still remain in the study. These interviews will be audio taped and later erased and destroyed.
1. The researcher will observe the students with disabilities as they interact with their peers and the teacher. After each observation the researcher will conduct an informal brief interview with the three students with disabilities about the observations, to make sure the information collected is factual. The researcher will conduct a formal interview with the three students with disabilities at the beginning and end of the research study. The students will have the option of not answering any question at any time and still remain in the study. An example of a question is telling me about going to your school? These interviews will be audio taped and later erased and destroyed.

2. The researcher will conduct a systematic approach of direct repeated observations, collection of field notes, informal and formal interviews (both the teacher and the three students with disabilities), and report of the findings.

3. The researcher will write down the information as it is occurring in a traditional notebook.

4. The research study will be conducted over a period of four months. Each of the observations will last from 30-50 minutes, which will be determined by the activity the class is engaged in.

5. The researcher will use a colleague from Wayne State University to get the parental consent, teacher consent, student oral assent in order to avoid the teacher or any students feeling that have to be in the research study. The consent process is as follows:

   1. The researcher will have a colleague from Wayne State University to get parental consent for the students with disabilities to participate in the study. Any parent has the option of not consenting for their child to participate in the study.

   2. The researcher will have a colleague from Wayne State University to send home the 25-28 Parental Consent Information Sheets. The parents will have two weeks to return the form if they do not want their child to participate in the study.

   3. The researcher will get oral assent from all of the students prior to the research study. Any student has the option of not participating. No data will be collected about this student.
4. The researcher will briefly explain the research study to you (teacher) and you will meet with the colleague from Wayne State University to give your written permission. The researcher will be in the session to answer any additional questions you may have about the research study.

Benefits:
As a participant in this research study, there may be no direct benefit for you; however, information from this study may benefit other people now or in the future.

Risks:
There are no known risks at this time to participation in this study.

Study Costs:
- Participation in this study will be of no cost to you.

Compensation:
You will not be paid for taking part in this study.

Confidentiality
No one will be able to determine who I am writing about. All information collected about you during the course of this study will be kept confidential to the extent permitted by law. All information collected from you will be kept without any identifiers. The Human Investigation Committee (HIC) at Wayne State University, or federal agencies with appropriate regulatory oversight [e.g., Food and Drug Administration (FDA), Office for Human Research Protections (OHRP), Office of Civil Rights (OCR), etc.] may review your records. When the results of this research are published or discussed in conferences, no information will be included that would reveal your identity. Audiotape recordings of you will be used for research or educational purposes, your identity will be protected or disguised. The tapes will be erased and destroyed at the end of the research study. You have the right to review the tapes at any time. The researcher (Estella Marshall) is the only person with access to the tapes and information collected during the research study. The researcher will not use any student names. The students with disabilities will be referred to as participant A, B, C. The general education student’s interactions/behavior will only be recorded if they have some interactions with the students with disabilities.

Voluntary Participation/Withdrawal
Taking part in this study is voluntary. You have the right to choose not to take part in this study. If you decide to take part in the study you can later change your mind and withdraw from the study. You are free to only answer questions that you want to
answer. You are free to withdraw from participation in this study at any time. Your decisions will not change any present or future relationship with Wayne State University or its affiliates, or other services you are entitled to receive.

The PI may stop your participation in this study without your consent. The PI will make the decision and let you know if it is not possible for you to continue. The decision that is made is to protect your health and safety, or because you did not follow the instructions to take part in the study.

Questions
If you have any questions about this study now or in the future, you may contact Estella Marshall at the following phone number. If you have questions or concerns about your rights as a research participant, you can call the Chair of the Human Investigation Committee. If you are unable to contact the research staff, or if you want to talk to someone other than the research staff, you may also call to ask questions or voice concerns or complaints.

Consent to Participate in a Research Study

To voluntarily agree to take part in this study, you must sign on the line below. If you choose to take part in this study you may withdraw at any time. You are not giving up any of your legal rights by signing this form. Your signature below indicates that you have read, or had read to you, this entire consent form, including the risks and benefits, and have had all of your questions answered. You will be given a copy of this consent form.

___________________________________________________ _______________________________
Signature of participant / legally authorized representative *    Date

___________________________________________________ _______________________________
Printed name of participant / legally authorized representative  *   Time

___________________________________________________ ________________________________
Signature of person obtaining consent        Date

___________________________________________________ _____________________
Printed name of person obtaining consent      Time
December 10, 2009

Re: Mrs. Estella Marshall-Reed

Subject: Research Project

I am aware that Mrs. Marshall Reed will complete her research project at School. I am aware of the Parental/Consent process that she will need to complete and she will be using a colleague from Wayne State University to recruit and obtain parental permission.

If you have any questions, please feel free to call me at

Sincerely,
Appendix F

Memorandum

October 20, 2009

Ms. Estella Marshall-Reed

Subject: Research Project

I reviewed your request to conduct a research project as part of a requirement for your doctoral degree. The research topic seems interesting and would certainly provide some worthy insights.

Our district policy prevents educational researchers from using instructional time to conduct research activities. However, in order to assist you in completing your degree we approve of the collection of data only upon meeting the following terms:

1. Meet with the school principal and finalize the details regarding procedures, student observations and interviewing.
2. Provide the school principal with copies of parental approval for each participating student in your study.
3. Participating students are not to be pulled out of extended day or any other school-related intervention programs.
4. Maintain confidentiality of all information gathered on the participants unless disclosure is given by parents/guardians.

If you have any questions, please feel free to call me at Good luck in your study, and please feel free to share your findings with us.

Yours Sincerely,
Appendix G

Student Initial Formal Interview Protocol

1. Tell me about going to your school?

2. Tell me about your class?

3. Tell me about your friends you have here? (B) What makes a good friend? (C) Are you a good friend? (D) How do you know if someone is a good friend?

4. What kinds of school activities do you and your friends do inside the school? (B) Describe the first activity? (C) Describe the second activity?

5. Which of these are most important? Why is that? Which of these are least important? Why is that?

6. What are all the clubs that you and your friends belong to?

7. Tell me about the activities that you and your friends get together and do after school?

8. What does it mean to say that someone is popular? (B) Do you consider yourself popular? (C) Tell me more?

9. Do you have anything else you want to share? Can you think of anything else?
Appendix H

Teacher Initial Formal Interview Protocol

1. Tell me about your class?

2. Tell me about your relationship with the students with disabilities?

3. What kinds of social interactions have you observed in your class between students with disabilities and their non-disabled peers?

4. What kinds of activities do you provide in your class that allows students to interact?

5. Tell me about some of the positive relationships between students with disabilities and their non-disabled peers?

6. What kinds of social interactions impact the students with disabilities academic achievement in your class?

7. How would you describe the student with disabilities as a learner?

8. How would you view the student’s academic strengths and weaknesses?

9. How do you view the student socially?

10. Do you have anything else you want to share? Can you think of anything else?
Appendix I

Student Participant final Interview Protocol

1. Tell me about your classroom?

2. Tell me what type of student you are?

3. Describe your favorite subject in school? Why?

4. How do you feel about working with other students in your class?

5. How do you feel about working with the teacher?

6. In the initial interview you told me a good friend is? ____________.
   Do you still think this way? Why?

7. How do you feel about working with the girls in the class?
Appendix  J

Teacher final Interview Protocol

1. Describe your learning centers?  1b. How do you decide which centers you will have each day?

2. Describe your cooperative groups?  2b. How do you decide how the students will be grouped?

3. In the initial interview you described P#1 as a learner. Do you still believe this is correct?  Is this still true? How would you describe his reading ability?

4. In the initial interview you described P#2 as a learner. Do you still believe this is correct? Is this still true? How would you describe his reading ability?

5. In the initial interview you described P#3 as a learner. Do you still believe this is correct? Is this still true? How would you describe reading ability?

6. In our initial interview, you described P#1 socially. Do you still feel this way? How does he get along with the girls in the class?

7. In our initial interview you described P#2 socially. Do you still feel this way? How does he get along with the girls in the class?

8. In our initial interview you described P#3 socially. Do you still feel this way? How does he get along with the girls in the class?

9. Do you have anything else you want to share?
Appendix K

St. Patrick's Day Wordsearch

APPLE, BELL, CHARM, CLOVER, DEER, ELK, LEPRECHAUN, MARCH, PARADE, POCKET, RAINBOW, SHEEP, SHAMROCK, ST. PATRICK, TREASURE, TRADITION, TREE, TRUMPH, WICKER, WOODS.
Appendix L

The Taj Mahal

Some people consider the Taj Mahal in northern India to be the most beautiful building ever constructed. Originally a monument to a beloved queen, it took twenty-two years and twenty-two thousand people to build it.
Appendix M

Multiply and Reduce Fractions (H)

Multiply and reduce each product if necessary.

\[
\frac{5}{12} \times \frac{3}{10} = \quad \frac{9}{10} \times \frac{3}{6} =
\]

\[
\frac{3}{13} \times \frac{1}{5} = \quad \frac{8}{11} \times \frac{2}{13} =
\]

\[
\frac{7}{11} \times \frac{6}{9} = \quad \frac{4}{11} \times \frac{7}{9} =
\]

\[
\frac{2}{15} \times \frac{3}{8} = \quad \frac{7}{14} \times \frac{3}{4} =
\]

\[
\frac{4}{8} \times \frac{14}{15} = \quad \frac{1}{8} \times \frac{2}{3} =
\]

\[
\frac{7}{8} \times \frac{3}{11} = \quad \frac{2}{15} \times \frac{1}{2} =
\]
Appendix N

Water Cycle

Pitter and Patter are two drops of water. They are great friends who usually travel the water cycle together. One day, something happened in the middle of a puddle and the two were separated. Some time later, Pitter and Patter met up again in a cloud. After a joyful reunion, the two told their stories.

"You wouldn't believe it," said Patter. "One minute I was with you in the puddle, and the next minute I was gone..."

A big, rough, pink tongue swooped down and picked Patter up. He figured out it was a dog's tongue. Patter went into a warm, dark place. Lots of other drops were there. Patter went into the stomach where he had to share space with some slimy dog food, green beans, a penny, and the end of an ice cream cone. It was a party atmosphere. He spent some time traveling through the dog's digestive system before he was left in some grass by the side of the road. The warm sun beat down on Pitter and the other drops of water. Some of the drops soaked into the ground, but not Patter. Soon, he became heated and began his journey back up through the sky into the clouds. He and many other drops were getting together forming the cloud when he had spattered Pitter.

"...and that's what happened," said Patter. "What happened to you?"

"Well," answered Pitter, "we were talking, and when I turned around you were gone. I saw other drops racing into the ground and thought you had gone ahead so I quickly followed them."

Pitter went sliding down through sand and soil and between rocks until she fell into an underground river. There she met millions of other drops that were on an underground roller-coaster ride. They bumped against rocks and coaxed small pieces to join them on their trip. They swept along anyone who would come with them until they slowed and joined a Great Lake. Slowly, over time, Pitter worked her way up through the thermal layers of the lake until she found herself at the surface. The warm sun beat down on Pitter. Soon she became heated and began her journey back up through the sky into the cloud where she had found Patter.

While they were catching up, the cloud was changing. They saw a flash, then heard a low rumble:

"Let's go," said Pitter.

"See you in the puddle," said Patter.
Number the events in Pitter and Patter's adventures so they are in the correct sequence. One sentence does not belong in each list. Cross it out.

**Patter**
- He began forming a cloud.
- He saw an ice-cream cone.
- A tongue licked him up.
- He was left on the grass.
- He soaked into the ground.
- He went through the dog's digestive system.
- He became heated.

**Pitter**
- She went on an underground roller-coaster ride.
- She traveled the lake's thermal layers.
- She went up into the sky.
- She became heated.
- She saw a penny.
- She slid down through the soil.
- She joined a Great Lake.

Pitter and Patter each traveled a different path. Some of their experiences were different and some were the same. Compare their experiences using the Venn diagram below.
Appendix O

Name: __________

Place the name of the correct planet on the line according to the diagram. Label the sun too!
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ABSTRACT

THE SOCIAL INTERACTIONS OF STUDENTS WITH DISABILITIES IN A 5TH GRADE LEVEL INCLUSIVE CLASSROOM AND THE EFFECT ON ACADEMIC ACHIEVEMENT

by

ESTELLA MARSHALL-REED

December 2010

Advisor: Dr. Gerald R. Oglan
Major: Special Education
Degree: Doctor of Education

This dissertation is a qualitative, ethnographic case study of 3 students with disabilities. The purpose of this research study was to observe and collect descriptive accounts of the social interactions that exist between the cultures in a 5th grade level inclusive classroom, such as the interactions between the special education students, general education students, and the teacher. Descriptors were utilized to create numerical data charts. The students with disabilities were referred to as the non-dominant culture (NDC). The general education students were identified as the dominant culture (DC). The general education teacher was referred to as (T).

Case study methods were utilized such as formal and informal interviews: student participant interviews, teacher interviews, field notes, and audio tapes and this method assisted in connecting theoretical beliefs to inclusive practices within the research site. These methods were the basis for the data collection schedule that was utilized for the span of this research study. Significant patterns and categories emerged in the data and these key findings were supported by the teacher’s theoretical
beliefs about inclusion. These findings correlated with the theories of John Dewey and Lev Vygotsky.
AUTOBIOGRAPHICAL STATEMENT

The field of special education has played a pivotal role in my life. I've acted as a teacher consultant during the day, adjunct professor in the evenings, while simultaneously pursuing my doctorate degree. These experiences have been both challenging and rewarding. Over the years, I developed a passion for special education and have relished my opportunities to touch the life of students with disabilities in a positive manner and this has brought me many joyous moments. I view myself as an agent for making positive changes in the life’s all children. I’m not sure if I chose the field of special education or if it chose me, however it has been a magnificent match.

I graduated from Michigan State University in 1988, with a Bachelors of Art degree in teaching students with Emotional Impairments. I didn’t realize that this degree would lay the foundation for a meaningful career. As I began to teach and work with a variety of student with disabilities, I became interested in teaching students with Learning Disabilities. In 1994, I graduated from Eastern Michigan University with a Masters of Art degree in teaching students with Learning Disabilities.

As the years passed, I began to notice the inequalities in special education and how students with disabilities were denied the opportunity to use their voices. As a result, I pursued and graduated from Wayne State University in 2003, with a Specialist certificate in Administration, with the hopes that this degree would allow me to have a seat at the decision making table regarding important issues in special education, such as inclusion. In December 2010, I will graduate with a Doctor of Education degree in Special Education. I am hopeful this degree will allow me to address some of the more global issues and concerns in special education that I’ve witnessed over the years.