

**Behavioral and Social Effects of Inclusion at the
Preschool Level:
Exploring an Integrated Early Childhood Classroom**
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Page Header: Social Effects of Preschool Inclusion

Abstract

The move to a more integrated setting for preschool classrooms has become a primary choice for early childhood education. The literature suggests that inclusion at the preschool level has a social impact on the behaviors of young children. Studies examining play preferences of young children and their attitudes towards classmates with disabilities focus on inclusive classrooms from a social development perspective. This study focuses on the types of behaviors and social interactions initiated by a group of general education students (n=10) in an inclusive early childhood classroom as they interact in their natural play environment. The setting for the study is an integrated early childhood classroom where the day is divided between inclusion time, where the special education students and their typically developing peers interact socially and independent class time. An analysis of data collected through observations in a preschool classroom indicated that the behaviors initiated by those general education students were typically cooperative in nature with a higher frequency of modeling behavior occurring during the interactions initiated by general education student towards a classmate with special needs. This research project remains the first stage of an extensive looks at the field of early childhood inclusion and the effects of environment on student social development.

Table of Contents

Abstract	2
Section I: The Problem	4
<i>Working Definition of Inclusion</i>	4
Section II: Review of the Literature	7
<i>History of Preschool Inclusion</i>	10
<i>Benefits of Preschool Inclusion</i>	12
<i>Social and Developmental Skills through Modeling</i>	14
<i>Social Status and Playmate Preference</i>	15
<i>Preparation for Primary/Secondary Settings</i>	16
<i>Overall Acceptance</i>	17
<i>Social Behaviors</i>	18
Section III: Methodology	23
<i>Participants</i>	23
<i>Setting</i>	23
<i>Social Participation Scale</i>	25
<i>Observation Procedures</i>	28
Section IV: Findings	31
<i>Data Analysis</i>	31
Section V: Implications and Recommendations	39

The Behavioral and Social Effects of Inclusion at the Preschool Level:

A look at an integrated early childhood classroom

Section I: The Problem

The inclusive educational setting has played an integral role in my current experiences as a preschool educator. It has become increasingly likely that children with and without disabilities will receive an education within an inclusive classroom. Because of the current scope of inclusive programs and my own experiences as a general educator in an integrated classroom, looking more closely at the behaviors of the students in my classroom who are experiencing this academic environment daily and the social play factors that occur seemed a natural progression of my professional development.

Working Definitions of Inclusion

First, before a review of inclusion can be discussed, an overall consensus of the definitions of preschool inclusion must be reached. For the purposes of this research article, inclusion can be defined as an early childhood classroom setting where preschool-age children with disabilities and their typically

developing peers interact in collaboration (Odom, 2000). Social integration of preschool students is achieved when typically developing children maintain interpersonal relationships with children with mild developmental delays as well as those without delays (Odom, 2000). It is also necessary then, that if we expect children with disabilities to interact with, learn from, and form social relationships with their general education peers it is critical that they are allowed to physically interact for a significant portion of the school day (Odom, 2000).

As a general educator and the lead teacher in a classroom of ten typically developing students who integrate daily with a class of special education students, I felt the need to look at inclusion from the perspective of my ten students. I became interested in observing their social behaviors during inclusive and non-inclusive settings over the course of the school day. Through a review of the literature available on preschool inclusion and an analysis of observations obtained based on the social interactions initiated by the general education students I hope to answer the following research questions:

1.

What are the frequencies of onlooker, parallel, and cooperative play in an inclusive classroom?

What types of interactions- cooperation, aggressive, modeling, nonverbal/limited, or violent- are students engaged in during inclusive and individual class time?

2. What are the frequencies of these interactions?
3. What are educator's (both general and special education) perceptions of the types of child social interactions occurring during inclusion?

As a new educator in the field of early childhood education and the inclusive preschool setting, I find this research invaluable to my classroom and professional development. It allows me the opportunity to look at my classroom with a more critical eye to assess how my students are interacting with each other. I can then develop activities and plans according to the types and frequencies of social play observed. If the students are observed in a high frequency of nonverbal interactions I may design my lessons to promote more cooperative play through songs/games, etc. My hope is that my classroom research may also provide early childhood educators with information that they can build from in their own classroom setting.

The results of this research are limited to a single classroom of ten Head Start children functioning as an integrated classroom and are not designed to be

generalized beyond the inclusive preschool setting in which it was conducted. As with any practitioner-based study, the purpose becomes the improvement of quality education within the teacher researcher's classroom and the increase in knowledge for the professional researcher. Knowledge remains one of the integral resources for any educator to remain a viable member of the teaching profession. The information that I have collected will allow me to assess preschool social development in a more comprehensive way while utilizing the information in my own classroom.

Section II: Review of the Literature

The topic of school inclusion has become an academic buzz word in recent years. With an increased demand for least restrictive environments for students with special needs and surplus of research detailing the effectiveness of inclusive classrooms, these academic settings have become almost a necessary evolution of education (Hanson et al., 2001). It has become the target of many educational initiatives and the driving subject behind many pieces of educational research.

And with any monumental academic phenomena, the ideas and theories have found their way down to the most basic level of education: preschool.

For many young children, preschool becomes the first academic setting available to them. Preschools can be found in many public and private sectors. There are community based preschools set up by certified teachers and federally funded preschools such as Head Start programs which operate through day care licensing and are based on federally mandated standards. There are also those preschools that operate in conjunction with elementary schools.

As federal legislation emerged in special education in response to research looking more closely at the field, many educators and administrators turned to a more inclusive approach to the education of children with special needs. The passage of the Education of all Handicapped Children Act of 1975, which was reaffirmed in 1997 with the reauthorization of the Individuals with Disabilities Education Act, advocates for the education of handicapped children in the least restrictive setting that is appropriate for their needs and stands as a monumental advocate for inclusion of students with special needs in a general education classroom.

PL 94-142 states:

(1) That to the maximum extent appropriate, handicapped children, including children in public and private institutions or other care facilities, are educated with children who are not handicapped, and (2) That special classes, separate schooling or other removal of handicapped children from regular educational environments occurs only when the nature or severity of the handicap is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily.

(Excerpt from the Federal Register, as cited in Turnbull, 1982)

According to the same legislation a least restrictive environment (LRE) for a student is defined as the balance between an individual child's needs for extraordinary treatment and limitations on their right to be educated in a "normal" environment (Turnbull, 1982). This becomes an individualized setting based on each child's individual needs as well as the service and developmental needs.

Because of this shift in legislation, inclusive classrooms have become a widely discussed placement opportunity for those students with and without disabilities in recent years. According to the United States Department of Education, annually, 50% of all preschool children with special needs who are

receiving services are in some form of inclusive setting (Odom, 2000). To address the fact that many public schools do not have a pre-kindergarten program into which young children with disabilities may be included other programs, such as Head Start and privately funded preschools, have implemented inclusive classrooms to meet this growing need (Lieber, 2000).

A Glance at the History of Preschool Inclusion

The use of inclusion as a practice for educating children with and without disabilities has its foundations in many of the early intervention pioneer programs of the 1970s. One such program, the Peabody Group, headed by William and Diane Bricker, offered one of the first early intervention programs (termed developmental integration) that included both children with and without disabilities. Throughout the early stages of this program many important observations were made. Researchers observed that the inclusion of “children without disabilities offered children with disabilities relevant and appropriate models for learning new skills and information.” (Bricker, 2000, p.15) With the advent of federal legislative mandates such as IDEA and the apparent success of inclusive programs there was an impressive increase in the number of

community and public school based kindergarten programs that included school-aged children with disabilities (Bricker, 2000).

The assimilation of inclusive classrooms into a more public educational domain brings with it a wealth of debate on effectiveness, setting, and procedure. Researcher Diane Bricker (2000) draws an interesting conclusion when looking at the time-line of inclusive practices;

“Most initial inclusive programs were developed by choice with strong ties to training institutions and the freedom to recruit families who saw the value of developmental integration. As programs have moved into the public domain, assuring that the necessary attitudes, skills, and support systems exist has become a significant challenge.” (p. 18)

Samuel Odom’s (2000) research concurs with Bricker’s logic, indicating that there has been a large increase from more traditional special education programs, which were often a version of school age programs, to settings where children with disabilities and their typically developing peers are taught together. Inclusive early childhood programs have been found in many academic settings ranging from child care centers, community programs, elementary schools, public and private neighborhood preschools, and Head Start programs. (Hanson, Horn & Sandall, 2001).

Benefits of Preschool Inclusion

Educational initiatives and a strong research base lead to a discussion on the basic purpose of inclusion in early childhood education. What becomes the purpose for this least restrictive environment? There is a wealth of research that looks at the positive outcome of early inclusion and the benefits that it provides to those students with special needs. The following section of the review of literature looks at the overall consensus of researchers on the academic and social benefits of preschool inclusion.

It has been observed in research of pre-existing preschool inclusion programs that there are many long-term positive social behaviors that have roots in an early childhood inclusive experience. Research conducted by Diamond and Hestenes (1997), which looked at the relationship between involvement in inclusive classrooms and ideas about people with disabilities, concluded that, “typically developing children’s knowledge of disabilities, their overall acceptance of individuals without disabilities, and their participation in an inclusive class contributed significantly and independently to their acceptance of

children with disabilities.” (p. 520) Research has often focused on the important behavioral and social effects of young children in inclusive classrooms (Brown, Odom, Shouming Li, & Zercher, 1999). A synthesis of the research available on this topic allows for an overview of the proposed benefits of such programs:

Preschool Inclusion may:

4. Allow for an opportunity to learn social and developmental skills through modeling and imitation as well as a setting to practice learned social skills with peers (Diamond & Hestenes, 1997; Kohler & Strain, 1999; Turnbull, 1982).

5. Promote the enhancement of social status for those students with special needs and increases the likelihood that general education students will chose their peers with disabilities as playmates (Nabors, 1997; Turnbull, 1982).

1. Prepare both special education students and their typically developing peers for the inclusive settings that they will likely face throughout their primary and secondary education (Odom, 2001; Bricker, 2000; Turnbull, 1982).

2. Provide an opportunity for non-handicapped preschoolers to develop sensitivity to individual differences and an overall acceptance of others (Diamond & Hestenes, 1997; Turnbull, 1982).

Social and Developmental Skills through Modeling

Young children often learn socially acceptable behavior through imitation and modeling. It is often the early childhood educator's job to model acceptable social skills, appropriate language and grammar, routines, and other developing cognitive skills. It would seem logical then, that as peer interactions begin to occur with more frequency, the model of important developmental skills shifts from that of the family and educator to that of a peer. Research-based evidence indicates that disabled children do tend to imitate the more advanced play behaviors of their typically developing peers... also peer modeling has been seen as an effective means of increasing the appropriate social behaviors of children with disabilities (Turnbull, 1982). Even early inclusive programs observed that the integration of children without disabilities into the previously dominated special education

programs offered children “relevant and appropriate” models for learning new skills and information (Bricker, 2000). An interesting observation of Diane Bricker’s early inclusion work also dealt with the classroom staff and their interactions with the young children. In an article written in 2000, Bricker stated, “When stumped about assisting a child with a disability on how to acquire a developmental skill, the staff learned to watch the performance of a child without disabilities for ideas and teaching strategies.” (p.15) This observation is strong fuel for the effectiveness of typically developing students as models for their disabled peers.

Social Status and Playmate Preference

Much research has looked at the importance of peers groups and early social interactions as a means of shaping children. Research looking at the social dynamics in an inclusive preschool setting indicated that peers play a crucial role in the growth and development of young children (Erwin, Alimaras, & Price, 1999). Establishing peer relationships is a major developmental milestone

of early childhood. Recent research studying school readiness factors concluded that many children, with and without disabilities, who enter kindergarten without the necessary social and emotional skills often incur behavioral, social, and academic problems that continue into secondary education and beyond (Buysse, Goldman & Skinner, 2002). A review of the literature also indicates that inclusive settings help to facilitate social development of preschool children at a greater rate than segregated ones (Nabors, 1997). But an important point to consider when looking at social performance of students with special needs is the necessary setting of realistic goals for each individual student. For some students the normative standard of socially acceptable behavior may not be feasible, so the setting of individual standards, which once met would mean successful social integration, should be the standard (Odom, 2000). Facilitating these social interactions and peer relationships often falls to the educator. It becomes the teacher's job to promote an atmosphere of social acceptance and respect where children are valued for their individual talents.

Preparation for Primary and Secondary Inclusive Settings

Inclusive education settings are most definitely not a preschool phenomenon. According PL 94-142, these inclusive settings will occur through the entire academic career of those students with special needs. Because of this it makes sense to indicate that the introduction of this academic setting at the most basic level of education would be a relevant introduction to the wave of inclusion that will follow K-12. A longitudinal study conducted in 2001 looked at the educational placements of students following their preschool inclusive placement. The researchers followed a cohort of students over a three year period with emphasis on their school placements. It was found that 60% of those children initially in an inclusive preschool setting were in some form of inclusion (including full, partial, or integrated settings) by second grade (Hansen, Horn & Sandall, 2001). This study also indicated that many of the parents of children with special needs who had remained in some form of inclusive

classroom through their early academic career were satisfied with the socialization occurring in those inclusive classrooms.

Overall Acceptance

Advocates of preschool inclusion indicate that young children have not formed negative stereotypes which in turn minimize opportunities for rejection and increase the potential for social acceptance of students with disabilities (Costenbader, 2000). Sensitizing non-disabled children to the special needs of some of their peers can be seen as a strategy for lessening the stereotype and stigma often associated with special needs students (Turnbull, 1982).

Researchers Diamond & Hestenes (1997) have looked closely at the relationship between an inclusive classroom setting and children's ideas about individuals with disabilities. Research has indicated that young children's experiences with disabilities are likely to shape their cognitive beliefs about disabilities. In this particular study, children in an inclusive preschool setting gave

higher social acceptance ratings to those with disabilities than those in a non-inclusive class. But also worth noting was the conclusion that those students who were more accepting of disabilities also tended to be the ones that were more accepting overall of all classmates.

Social Behaviors in Preschool

Much of the current research available explores the social benefits and drawback of inclusion for those children with special needs. Many studies observe the social interactions and the overall inclusive classroom dynamics from a special education perspective. The following section provides an overview of social participation and behaviors initiated from a general education student's perspective.

Interpersonal relationships with peers begin to develop as children enter the preschool setting. These initial interactions outside of the family play an integral role in the growth and development of young children (Erwin, 1999). Surveys conducted

in the United States in the 1960's and 70's indicated that social circumstances have the greatest influence on the results of school instruction... which in turn prompted debates on the necessity of inclusive education of children from different groups and social strata (Iarskaia-Smirnova, 2004).

There have been many studies that look at the preferences of playmates during social interactions in a preschool setting. This is an important observation considering that engaging in play with peers in early childhood allows opportunities for regular and special education students to increase social competence (Nabors, 1997). In a study conducted by Laura Nabors (1997), 59 preschool children (40 regular education and 19 special education) were interviewed to determine each child's playmate preferences based on peer-nomination questions. According to an analysis of the research, children with special needs were often overlooked as playmates, but not often rejected outright by their typically developing peers (Nabors, 1997). This conclusion seems to imply that the general education students were not often engaged in

cooperative play settings with their classmates with special needs.

This observation raises an interesting question about the overall social play environment of the classroom and its effects on the study.

Observations of preschool inclusive classrooms have reported that there has been “an increase in the number of social interactions with peers, more advanced associative, social play, and more complex play with toys.” (Costenbader, 2000, p.226)

Social play among children serves as a primary setting for learning and development. In early childhood education, social play is also viewed as one of the most important means to enhance and encourage language, cognitive, social, and emotional development (Ivory & McCollum, 1999). An evaluative study conducted by Ivory and McCollum (1999) looked at the level of social play among students in two fully inclusive preschool classrooms without direct involvement of the teacher to encourage and support the social play. This study observed eight children with disabilities in two separate preschool inclusive classrooms.

Levels of social play were observed while the students engaged in free play in the classroom. Overall researchers concluded that parallel play, with minimal peer interaction, was the most common play preference for the eight children observed.

Another study conducted by Wolfberg et al (1999), observed the socialization and development of a peer culture in preschool to determine social play preferences. For the purposes of this study peer culture was defined as “those shared understanding, values, beliefs, and associated behaviors, activities, and relationship patterns that children construct out of their everyday experiences with one another.” (p. 70)

Researchers found that:

3. Many children with disabilities expressed interest in social play,
4. Encounters ranged from brief to more frequent, sustained contact, and
5. The experiences of exclusion were sometimes prominent in inclusive classrooms (Wolfberg et al., 1999).

The point of interest for this research article focuses on the social interactions and the overall acceptance goal previously discussed in the article. Much of the current research looks at the development, litigation and trends, and social and cognitive effects of inclusion from a special education perspective. This is understandable considering the need to find an effective learning environment for both academic and social growth for those students who may need the extra support. What is lacking in much of the current research is the focus on the social behaviors and overall competence of those general education students in an inclusive early childhood setting. The reasons behind this lack of research may have many foundations. Inclusion must often be looked at from a special education perspective because it remains an educational option for students with special needs. It's often without question that a typically developing student will be educated in a regular classroom setting, but this is not always the case for students with disabilities. With choice comes the need for research to assess the positive and negative aspects inclusion for students with disabilities.

This teacher research study investigates types of play occurring at the inclusive preschool level and the interactions that are taking place between students with special needs and their typically developing peers to answer the following research question: What are the social and behavioral effects of inclusion at the preschool level for general education students?

Section III: Methodology

Participants

Data was collected on ten children enrolled in a Head Start early childhood education program which was in an inclusive setting within a school for children with special needs. The chronological ages of the ten children enrolled in the Head Start program at the beginning of the study ranged from 3.7 to 4.9 years, with a mean age of 4.2. These children were enrolled in Head Start based on income eligibility requirements posted by the federal government in conjunction with the Head Start Initiative. Parental assent was obtained for all children before commencement of the study (Appendix A). The Head Start classroom consisted of a lead teacher and an assistant, as well as a support staff member who assisted in the classroom for three hours daily.

Setting

The students were enrolled in the Head Start classroom that collaborated with a classroom of same-aged students at a school for children with special needs. Collaboration included weekly planning sessions which consisted of lesson ideas, daily scheduling, and special field trips and activities. The inclusive classroom at this school had been in operation for five years prior to introduction of this study. Both programs provided service for 3-5 year old children on a full-time basis (6 hours daily/5 days per week). The general education/Head Start (HS) schedule consists of a mix of inclusion and individual class time. The schedule is broken down into the following:

9:05-9:35- *Table Time (HS only)*
9:40-9:55- *am Circle (HS only)*
10:00-10:15- *Breakfast (HS only)*
10:20- 11:20- *Centers- Inclusion*
11:25- 11:55- *Art (HS only)*
12:00-12:30- *Gross Motor (Partial Inclusion)*
12:30-12:40- *Story-time (HS only)*
12:45- 1:15- *Lunch (Some students switch)*
1:20-1:45- *Flex- Inclusion*
1:50-2:00- *Story Variety- Inclusion*
2:05- 2:40- *Rest (HS only)*
2:45- 2:55- *Snack (HS only)*
3:00- *Dismissal*

The two classrooms are connected by an open section at the back of the classrooms with no door. During individual class time a small stop sign is placed in the open section to alert students. During center-time both classrooms are open to all students which allowed them an opportunity to direct play themes and activities independently. Flex and Story-time in the afternoon occur in the special education classroom. Books, puzzles, and various table activities are available for the students. Story Variety consists of a flannel story or other interactive tale that requires student involvement.

Social Participation Scale-Data Collection

For the purposes of this study the Parten's Social Participation Code was used to distinguish between the types of social play settings occurring among children in an inclusive setting during data collection. The following is a brief overview of the three social participation categories used during observations:

6. Onlooker- A type of social play where a child remains on the outside of any social interaction. The child is seen as observing a group(s) of students but does not enter the play.

7. Parallel – The child plays independently but with toys/games that are like others around them. During

this type of play the child plays beside others but makes no attempt to modify other's activities.

8. Cooperative- A give and take interaction among children around a play theme. Activity is dictated by members of the groups. Leaders often emerge in this type of social participation.

(Parten, 1932)

A Closer Look at Social Participation

To illustrate the difference between *onlooker, parallel, and cooperative* play actual observations recorded during the data collection phase may be cited.

Classroom Situations during Open Classroom

Onlooker activity- Three children played in the water table, pouring water through a funnel and filling a bucket. The children laughed and directed each other on the best way to fill the bucket. A fourth child, the general education student/subject of the observation, watches from a table near the water table. The child is observed to be watching the play of the other 3 children but does not approach the water table to join in the activity.

Parallel activity- Two children sit at a table, each putting together a separate puzzle. There is no conversation taking place between the two children although they are both working on similar tasks. The children are playing beside, not with each other.

Cooperative activity- Three children are playing in the dramatic play area during centers. One student puts on a pair of scrubs and a doctor's coat. Another retrieves the play doctor's kit from the shelf and directs the third child to sit on the floor so they could "fix her broken leg." The two "doctors" work together to fix the "patient's" leg, sharing the stethoscope and thermometer. Some other children are invited to join the play theme as other patients or helpers, while others are excluded from the activity.

Also included in the data observation process was a distinction between the nature of the social interactions occurring during teacher observation. To accurately distinguish the social interaction occurring, a definition of each social interaction was identified for use during this research study. The definitions are as follows:

Cooperative: In this type of social exchange the student observed is working compatibly with another student(s). There is a sharing of ideas and materials and the social atmosphere remains amiable.

Aggressive: In this type of interaction the student observed may be angry with other classmates, arguing, fighting, or even taking toys or other materials from peers.

Modeling: In this type of interaction the student observed is demonstrating a skill, game, or other activity to another student through physical or verbal means.

Nonverbal/Limited: In this interaction the student observed is having limited contact with other students in their vicinity. There may be a nonverbal exchange of materials or a verbal exchange through a teacher/adult in the classroom.

Violent: In this interaction the student observed reacts in a violent way to another student by hitting, shoving, kicking, or another form of aggressive physical contact.

Observation Procedures

Data was collected through the use of anecdotal observations recorded by the Head Start lead teacher and teacher assistant during both inclusive and individual class time. These anecdotal records were based on behaviors exhibited and initiated by the typically developing Head Start children towards their classmates and the special education students. The data collection chart (Appendix B) consisted of a section to record students involved: Was it a general education student to general education student social interaction? Or a social interaction initiated by a general education student to a special education student? All interactions recorded contained only those social behaviors initiated by general education/Head Start students. The data collection chart also contained a section for synopsis of the interaction as well as a section to record the type of play setting for observation: *onlooker, parallel, cooperative* (Parten, 1932) and the nature of the social interaction that took place: *cooperative, aggressive,*

modeling, nonverbal/limited, or violent. This chart included the data collected over the course of the research study. This chart assisted in organizing relevant and necessary information to be analyzed. A tally chart (Appendix D) was also developed to assist in the recording of frequencies of data/behaviors through percentages of occurrences. Data was collected for a three month time span from January to March of 2005 and students were observed only in their natural classroom environment. Observations were recorded daily to maintain a consistent record of student behaviors and alleviate gaps in the study.

A journal was also kept to record teacher perceptions of the overall social dynamics of the classroom during inclusive and non-inclusive portions of the day. This journal allowed for a place to record thoughts, ideas, feelings, anecdotes, and any other information relevant to the research process.

Surveying colleagues on attitudes and perceptions of the preschool inclusive classroom was another method of collecting data. The survey (Appendix C) was used to assess perspective on social dynamics of inclusion in the collaborative setting. This method of data collection was also employed to analyze observations of colleagues involved in the preschool inclusion process. This survey included questions relating to the amount of social interaction

observed, reactions of students according to teacher observations, and a rating scale to assess how often the five social interactions observed in this study were taking place according to other educators in the inclusive setting. The survey was distributed to the four special educators- lead teacher, teacher assistant, and two aides- as well as to the teacher assistant and support staff in the Head Start classroom.

The study employed these three methods of data collection so results could be compared from different sources. This assists in the synthesis of the data and enhances the validity of the research design.

Data was collected during individual class time which consisted of Head Start students, during am table time and art time. Observations recorded during inclusive time were collected during centers and afternoon flex time in the special education classroom.

Section IV: Findings

Data Analysis

Data collected during this study was analyzed to determine the frequencies of the types of play environments- *onlooker, parallel, cooperative-*

occurring in the classroom and how often these setting occurred for both inclusive and non-inclusive (Head Start only) class interactions. The five types of interactions-*cooperative, aggressive, modeling, nonverbal/limited, or violent*- were also recorded for each anecdotal observation to assess the frequency of those behaviors occurring.

What are the frequencies of onlooker, parallel, and cooperative play in a preschool inclusive classroom?

To answer this research question data was collected in chart form based on anecdotal observations to determine the types of social play occurring in the inclusive classroom being studied. The students were observed by the primary researcher, as well as the classroom teacher assistant to record the behavioral exchange and the type of play: onlooker, parallel, or cooperative. These results were then tallied to determine frequency. Inter-rater reliability was maintained through the development of the criteria for the three types of play settings as well as the establishment of weekly meetings to discuss behaviors and anecdotes. Both teacher researcher and teacher assistant had received prior training in the collection of anecdotal records through the use of the Creative Curriculum

assessment tool used in the Head Start program. The observation team met to discuss the importance of maintaining accurate records for data collection. Once the frequencies of each type of social play were calculated, the results were compared in terms of the students involved. The frequencies of cooperative play during individual class time (general education student interaction) were compared to the social play occurring during inclusive class time when the observations were based on the play initiated by a general education student and directed to a classmate with a disability. The results are as follows:

Social Play Environment	Student Interaction	Frequency of Occurrence*
Onlooker	Head Start to Head Start	9.7%
	Head Start to Child with Disabilities	11.5%
Parallel	Head Start to Head Start	37.1%
	Head Start to Child with Disabilities	32.7%
Cooperative	Head Start to Head Start	53.2%
	Head Start to Child with Disabilities	55.8%
Totals		100.0% 100.0%

** The frequency of occurrence was determined by calculating the total amount of observations recorded for each type of interaction and correlating it with the social play type to determine the percentage of time that the particular type of social play scenario occurred naturally in the classroom setting.*

It can be surmised from an analysis of the data collected and the percentage of social play in both inclusive and independent class settings, that cooperative play was the most observed social play environment for both types of interactions and that each type of social play, onlooker, parallel, and cooperative, occurred with similar frequencies during both inclusive and non-inclusive settings.

What types of interactions are students engaged in during inclusive and individual class time and what are the frequencies of these behaviors?

A data analysis chart was developed to study the relationship between the general education, Head Start students in the classroom, as well as the behavioral interactions initiated by those general education students to their classmates with disabilities. Data collected using a chart (Appendix B) was then tallied to determine the frequencies of interactions occurring and to generate a comparison

between the interactions during inclusive and non-inclusive (Head Start only) class time.

Data Analysis- Tally Sheet/Frequency of Behaviors

Head Start to Head Start		Frequency of occurrence	Head Start to Student with special needs		Frequency of occurrence
Type of Play*	Interaction		Type of Play*	Interaction	
Cooperative 53.2%	Cooperative	25/62-40.3%	Cooperative 55.8%	Cooperative	15/52-28.8%
	Aggressive	4/62-6.5%		Aggressive	4/52-7.7%
	Modeling	4/62-6.5%		Modeling	9/52-17.3%
	Nonverbal/Limited	-----		Nonverbal/Limited	1/52-1.9%
	Violent	-----		Violent	-----
Parallel 37.1%	Cooperative	2/62-3.2%	Parallel 32.7%	Cooperative	-----
	Aggressive	8/62-12.9%		Aggressive	6/52-11.5%
	Modeling	1/62-1.6%		Modeling	1/52-1.9%
	Nonverbal/Limited	9/62-14.5%		Nonverbal/Limited	9/52-17.3%
	Violent	3/62-4.8%		Violent	1/52-1.9%
Onlooker 9.7%	Cooperative	-----	Onlooker 11.5%	Cooperative	2/52-3.8%
	Aggressive	-----		Aggressive	2/52-3.8%

	Modeling	2/62- 3.2%		Modeling	2/52- 3.8%
	Nonverbal/Limited	3/62- 4.8%		Nonverbal/Limited	-----
	Violent	1/56- 1.6%		Violent	-----

* (Parten, 1932)

The tally chart (appendix D) consisted of a breakdown of the inclusive/non-inclusive student involvement, the type of play environment, and the interaction that was observed. This synthesis of the data helped to determine how the data was related as well as create a systematic means to determine frequencies of behaviors and their relationship to the student interaction in an inclusive classroom. A thorough analysis of the data indicated that the behaviors that were occurring most often in both the regular education to regular education student interaction and the interaction initiated by a regular education student to a peer with a disability were those cooperative behaviors occurring in cooperative play settings such as dramatic play scenarios and other settings where students were able to work together to complete a task or develop a play theme. This interaction occurred during 40.3% of the observations of only those interactions between Head Start children and with 28.8% of the observations of those interactions initiated by a Head Start child to a classmate with disabilities.

A closer look at the data also indicated that in those cooperative play settings, modeling behavior was observed with a higher frequency when the interaction was a Head Start child to a student with special needs. This social behavior was observed 17.3% of the time in the inclusive environment and with only 6.5% frequency during non-inclusive interactions. Another interesting observation was the frequency of violent or aggressive social behaviors that occurred during data collection. In almost all cases, the frequency of these aggressive or violent behaviors occurred at a higher rate in the non-inclusive class time and at a lesser frequency in any interaction initiated by a general education student to a classmate with special needs.

These findings seem to add merit to some of the literature reviewed for this research article which indicated that some of the potential benefits and implications of preschool inclusion include an opportunity for the modeling of social behaviors for growth and development. The frequency of modeling behaviors initiated by general education students to the students with special needs in the inclusive setting indicate that those behaviors are taking place. A more thorough investigation into the effectiveness of these modeling behaviors would have to occur to surmise the significance of this finding. Also, the

frequency of cooperative behaviors and cooperative play environments observed during both individual and inclusion classroom time, indicate that the students in the classroom had established a social play environment conducive to the sharing attitude and compatibility of the children.

What are educator's (both general and special education) perceptions of the types of child social interactions occurring during inclusion?

After reviewing the completed surveys handed out to colleagues in the inclusive classroom setting, it can be determined that overall staff- both regular and special educators, feel that the students respond in a positive way to the environment produced by an integrated classroom. Analysis of the rating scale also indicates that the teaching staff are observing cooperative, parallel, and modeling behaviors among both regular and special education students at a higher frequency than aggressive behaviors. Although these behaviors do occur there is no data to indicate that the inclusive environment has any causal relationship to the more aggressive interactions among students in classroom.

As an early childhood educator, taking an objective observer role in the classroom was a difficult endeavor. I was able to record my more personal

feelings about the research process and more in-depth observations in a research journal. This journal allowed for reflection of ideas, trials, thoughts, insights, and failures that are not easily transferred to a data table. Through an analysis of this research journal I was able to draw on my own feelings as an educator and compare them to the objective data that had been collected over the three month collection period in my classroom. It was interesting to observe that many of the social interactions that I thought were occurring among those students with special needs and their typically developing peers were what I was observing through anecdotal records and data frequency charts.

Section V: Implications and Recommendations

Completing a significant educational task such as a teacher research project requires an extensive period of reflection and an assessment of implications of the research on further endeavors. The conclusions that have been drawn to answer initial research questions leave many options to continue research. Because of the objective classroom observations collected, I was able to gain a more complete picture of the social atmosphere in my preschool classroom. As this was a very specific study and not generalizable beyond the

confines of the specific group of children observed, I would like to utilize a less extensive form of the data collection process to examine the social interactions and play settings occurring within subsequent classes. I feel that by objectively observing the preschool students in their natural play environment I may be able to better structure my classroom environment to meet the social needs of my students. More opportunities for cooperative play could be developed for a group of students which a high frequency of aggressive behaviors or students who interact only in an onlooker play setting could be encouraged to participate in more parallel play activities. I feel as though this would be a valuable tool to promote social development, which is such an integral aspect of preschool education. I would also like to recommend that teachers take an opportunity to step back and objectively observe students as they interact with peers. Often educators become so focused on the academic aspects of the daily classroom that the importance of social growth and development are overlooked. It is truly amazing what can be ascertained about students in a classroom by taking the time to observe them socially. It can be a great tool for teachers to promote or change the dynamics of their classroom.

Overall the entire teacher research process has been one of enlightenment. The possibilities for further research on the topic of preschool inclusion and social behaviors are endless. Further research could test the impact of social play environments and cooperative play centers on behaviors or look more carefully at the nature of the interactions occurring between general education students and their peers with special needs. The path remains un-mapped and the destination unsure but the tools are in place to make the journey an important one for the field of early childhood education.

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Appendix A Parental Assent Form

Dear Parents,

As many of you know I am working towards my Master of Science degree in Childhood Education at Keuka College. As a candidate for graduation in May 2005, I have begun my final degree requirement, which is a research project. I have chosen to use the Head Start/Keuka Lake School classroom as the setting for my research. I hope to observe your children in their regular classroom environment and see what types of social interactions are taking place. No changes will occur in the classroom as this is just a chance to allow me to

see/hear all the neat things your children talk about and play with as they interact with each other.

These observations will then be used (without names) in a final analysis of classroom interactions in the Head Start/Keuka Lake School Collaborative Classroom. I ask you for your help and support as I work towards this goal.

Please fill out the bottom consent form and send it in with your child. If you have any questions about the research process or would like to find out more about it I will be more than happy to meet with you to answer any questions or discuss concerns. Thank you very much.

Friendly yours,

Heather Brennan



I agree to allow my son/daughter _____ to be observed for the research project.



I would not like to allow my son/daughter _____ to be observed for the research project or I will need more information before I make my decision.

Parent/Guardian Signature

Date

(Appendix B)
Social and Behavioral Interactions
Preschool Inclusive Classroom
Observation Log

Student	Observation	Type of Play	Interaction
		Onlooker Parallel Cooperative	Cooperation Aggressive Modeling Nonverbal/Limited Violent
		Onlooker Parallel Cooperative	Cooperation Aggressive Modeling Nonverbal/Limited Violent
		Onlooker Parallel Cooperative	Cooperation Aggressive Modeling Nonverbal/Limited Violent
		Onlooker Parallel Cooperative	Cooperation Aggressive Modeling Nonverbal/Limited Violent
		Onlooker Parallel Cooperative	Cooperation Aggressive Modeling Nonverbal/Limited Violent
		Onlooker Parallel Cooperative	Cooperation Aggressive Modeling Nonverbal/Limited Violent

(Appendix C)
Survey on Preschool Inclusion

How do you feel your students react to an inclusive setting?

How much social interaction, of any kind, do you feel takes place between regular and special ed. students in an inclusive setting?

Please rate the following types of social interaction based on how often you observe them occurring: (1 most often, 5 least often)

- ___ Parallel Play
- ___ Modeling
- ___ Aggressive Interactions
- ___ Cooperation
- ___ Polarized Play (limited interaction between regular and special ed. students)

Thank you for your time.

This survey is not designed to test the effectiveness of preschool inclusion, but to look at the behavioral and social effects of this type of academic setting.

Data Analysis- Tally Sheet/Frequency of Behaviors

Head Start to Head Start		Frequency of occurrence	Head Start to Student with special needs		Frequency of occurrence
Type of Play*	Interaction		Type of Play*	Interaction	
Cooperative	Cooperative		Cooperative	Cooperative	
	Aggressive			Aggressive	
	Modeling			Modeling	
	Nonverbal/Limited			Nonverbal/Limited	
	Violent			Violent	
Parallel	Cooperative		Parallel	Cooperative	
	Aggressive			Aggressive	
	Modeling			Modeling	
	Nonverbal/Limited			Nonverbal/Limited	
	Violent			Violent	
Onlooker	Cooperative		Onlooker	Cooperative	
	Aggressive			Aggressive	
	Modeling			Modeling	
	Nonverbal/Limited			Nonverbal/Limited	
	Violent			Violent	

* (Parten, 1932)