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# Typically developing children's attitudes and acceptance of children with autism spectrum disorder after integrated play group involvement

Karen Kay Toon

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Typically Developing Children's Attitudes and Acceptance of Children with  
Autism Spectrum Disorder after Integrated Play Group Involvement

by

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Thesis

Submitted to the College of Health and Human Services

Eastern Michigan University

in partial fulfillment of the requirements

for the degree of

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in

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October 15, 2010

Ypsilanti, Michigan

To my husband, Stephen, and our children. May you be blessed with the  
passion, courage, and faith to help those around you!

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Anytime I became frustrated or tired, my son Elliot was able to rejuvenate me through a hug or smile. For him, I am eternally grateful.

## ABSTRACT

In an urban, midwestern public school, six children, ages 8-10 years old, engaged in ten weeks of Integrated Play Groups (IPGs) to teach skills to students with autism spectrum disorder (ASD). Lasting two and a half months, IPGs met for 30 minutes, twice weekly. The participants engaged in pre- and post-tests of the revised Chedoke-McMaster Attitudes Towards Children with Handicaps scale and pre- and post-focus groups. These means were used to investigate the research question: What can be learned about typical peers' attitudes and acceptance of students with ASD through the expert players' reflections on Integrated Play Group involvement? The quantitative measures revealed trends towards increased acceptance of the children with ASD, but without statistical significance. The qualitative methods exposed a positive lived experience of the IPGs with a powerful change in attitudes towards the children with ASD. Future research will be beneficial to expand upon this study.

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## Chapter 1: Introduction

### Background of the Problem

As the incidence of autism continues to rise in the United States, occupational therapists are combing the research to find and employ innovative and effective treatment methods to use with this client-base. One model that has begun to emerge uses peers to teach skills to those with autism. Known as the Integrated Play Group model (Wolfberg, 2003), research has begun in regard to the participants with autism. Further investigation about the peers involved is essential and forms the basis of this study.

**Autism spectrum disorder.** Elementary school students can often be seen creating masterpieces in art class, pretending to be firefighters on the playground, or laughing about the latest antics or performances of Hannah Montana. They have been known to turn a balance beam into the plank on a ship, seek out kickball team members, and smile when they are smiled at.

Those with autism may have difficulty with one or all of the above childhood experiences. According to the *Diagnostic and Statistical Manual of Mental Disorders, fourth edition, text revision* (DSM-IV-TR), those with autism demonstrate impaired social interaction and communication, with very limited interests (American Psychiatric Association [APA], 2000). More precisely envisioned as a large umbrella, autistic disorder or autism spectrum disorder (ASD) encompasses people with varying degrees of impairment and ability. The incidence of ASD has drastically risen from 2-4

in 10,000 people in 1943 (Wing & Potter, 2009). The most recent statistics released by the Centers for Disease Control and Prevention (2010) found that it rose to 1 in 110 in 2006. Children who fall under the ASD umbrella have marked developmental differences when compared to their typically developing peers. Although there are many differences that emerge between these varying students, this study will explore two areas: play and social skills. Special attention will be given to these areas of focus in Chapter Two. However, a few of the areas of concern are social awareness, ability to read and respond to social cues, and reciprocal social communication.

Oftentimes, these areas of concern with children with ASD are accompanied by odd behaviors that further set those children apart from their classmates (Goldstein & Ozonoff, 2009).

**Role of occupational therapy.** Occupational therapists (OTs) are integral in many settings to help increase children's true engagement with their contexts and with as much independence and success as possible. As later detailed in Chapter Two, an occupational therapist can work in several domains of practice (American Occupational Therapy Association [AOTA], 2008). Specific to this study, pediatric OTs help children with autism develop their ability to play and interact with those around them. Many researchers have discussed the essential role that OT has in the area of play. Some have stated that play is an essential foundational occupation in the field of occupational therapy (Couch, Deitz, & Kanny, 1998; Kielhofner, 2004). It is natural that this work would be executed in the school setting

where children spend the majority of their day. As posed by Dawson, Sterling, & Faja (2009), when a child with autism has earlier identification and intervention, there is a higher probability of increasing his or her ability to function within daily routines.

**Integrated play group model and the use of typical peers.** Play assessments have evolved in recent years, and research has been completed to create a more inclusive way to evaluate a child's ability to play (Morrison, Bundy, & Fisher, 1991). One model that has been identified as a way to teach skills to those with ASD is Integrated Play Groups (IPGs). IPGs use play and typical peers to teach needed skills to those with ASD (Wolfberg, 2003). Typical peers have achieved developmental milestones at expected ages, and they are not on the autism spectrum. They have skills that are expected at any given age and can model how to engage in play. In this model, typical peers are called "expert players" because of their success while playing. Since playing is a primary occupation of children, they are "experts" in their field.

### **Research Question**

To establish that IPGs are an optimal avenue for teaching kids with ASD, more research is needed. There is beginning research on the effects of the Integrated Play Group model on clients. However, to date, there has not been any published research about the responses of typical peers to Integrated Play Groups. In addition, the effect that IPGs have on peer acceptance of students with ASD has not been thoroughly investigated.

Thus, this study attempts to fill this gap in the literature through exploring the expert players' experiences and thoughts on involvement with the Integrated Play Groups.

The research question guiding this study is:

What can be learned about typical peers' attitudes and acceptance of students with ASD through the expert players' reflections on Integrated Play Group involvement?

### **Summary**

Through IPG implementation, a formal attitude questionnaire, and focus groups with the expert players, the research question will be illuminated. In turn, the use of Integrated Play Groups may become a more readily accepted and promoted model for occupational therapists and the clients they serve.

### **Organization of Remaining Chapters**

In Chapter Two, the literature will be reviewed, and key thoughts will be brought to the forefront. Chapter Three will encompass a detailed description of the research methods and how the study was set into motion. Results of the data analysis will be synthesized and discussed in Chapter Four. Last, the study will be summarized in Chapter Five with a review of further implications for research.

## Chapter 2: Review of Literature

It is pertinent to inspect the current literature available on several related topics. Understanding play, typically developing peers, and autism was crucial to the development of the current study. Other explored areas include OT intervention, play models, and acceptance scales. By examining available research, this study has become more focused and detailed.

### Play

Playing is more than something that we do to occupy our time. It is an essential foundation and component of our everyday lives. What was once thought to be an arena just for children is now known as an important occupation for people of all ages. Play has cultural, social, and developmental implications.

**Background.** Play evolves at different rates for children of all ability levels. Norms have been developed to describe when children reach specific milestones. While make-believe play is first seen around 30 months of age, it continues to expand through age four or five (Corrigan, 1987; Haight & Miller, 1993). Initially, a child pretends to drink a cup of tea and may eventually demonstrate shopping for ingredients, making the tea, and pouring the tea into the cup. The original imaginary play expands as a child grows and learns new skills (Berk, 1996).

**Cultural importance of play.** In 1982, Vandenberg and Kielhofner discussed the "...irony that play is so pervasive in human lives and yet relatively absent from the knowledge base of social science and therapies

concerned with human behavior” (Vandenberg & Kielhofner, 1982, p. 20). Bruner (1976) suggested that children learn best by doing rather than by watching. Viewing play through a cultural-evolutionary lens, humans are predisposed to and proficient in playing. Vandenberg and Kielhofner (1982) suggested that through play, the enduring survival skills of the human species evolve. They further suggest that play and imitation go hand-in-hand with one another as imitation is present in play. In concurrence, once a phenomenon takes on a culturally relevant meaning, members of that culture will begin imitating it. In this context, play, imitation, and cultural transformation are supported by observational evidence (Vandenberg & Kielhofner, 1982).

**Early studies.** Vandenberg and Kielhofner discussed the work of the Harlows, who in the 1960s studied primates and play. They found that over time, monkeys build on their abilities to play and show more sophistication as they age. The younger primates not exposed to peer play matured into adults who were unskilled and lacked ability. Hence, if young monkeys did not play, they did not have the opportunities to develop social and emotional skills needed to become competent adult monkeys. Play had impacted the path of development in their species. Similarly, Vandenberg and Kielhofner (1982) suggest that playing helps a young child learn the skills needed to become a capable adult. Specifically, the use of tools, language, and social skills related to their culture are developed through engagement in play (Vandenberg & Kielhofner, 1982).

**Play as practice and practice as play.** According to Vandenberg and Kielhofner (1982), play provides the occasion to generate and discover new behaviors and build upon them. By reflecting on the work of Piaget, this aspect of play is recognized. Children often enjoy replicating something they have just learned. They often revel in the pure bliss of self-satisfaction in everyday performance (Vandenberg & Kielhofner, 1982).

**Play as life-long occupation.** Vandenberg and Kielhofner concur that wise therapists will design their clinics to encourage play rather than “replicating the cultureless features of hospital life...and provide contexts within which everyday activities can be carried out. Therapists can then convey to patients that the clinic is a safe arena for nonserious exploration of new potentials” (p. 27). This mindset opens up the possibilities for both the child and the therapist. A lack of play could create a chasm between the child and his or her occupations. Using play to relearn needed skills can help seal the gap. In parallel, intervening early should increase the performance of the child later in life. Vandenberg and Kielhofner suggest that play organizes the constant growth of the child and should not end when he or she reaches adulthood. Instead, playing is an evolving occupation that continues throughout human life. Play prepares the child for participation in social life and cultural understanding, and it develops more serious aspects of adulthood, like stability, confidence, and commitment (Vandenberg & Kielhofner, 1982).

Gesell, Piaget, Erikson, & Havinghurst (as cited by Florey, 1981) supported a continual ebb and flow of the content and structure of play throughout the lifespan. The setting and environment of play should change in parallel to the changing content and form. There may be continual change in the child, even if it is at a much slower pace than that delineated by expected milestones (Florey, 1981).

**Components of play.** Skard and Bundy (2008) suggested that playfulness has four distinct components. They include (1) intrinsic motivation, (2) internal control, (3) freedom to pause reality, and (4) giving and reading cues, or framing. Bundy, Lockett, Naughton, Tranter, Wyver, Ragen, Singleton, & Spies (2008) reported that children with autism who have fewer playing skills may show resistance to intervention.

### **Typically Developing Children**

There is a natural progression for the development of play skills for children. The child who is progressing at an ordinary rate will take skills learned while playing and build upon them to create higher levels of play. Lane and Mistrett (2008) suggest that young children begin with sensorimotor play to explore the world around them. Then, children demonstrate functional play, engaging with real objects as they are intended. Next, children engage in constructive play by building and sorting objects. They begin to use more than one object at a time during play, and they will start pretend play. In pretend play, they may use an object like a

box and pretend it is a castle. Children's play continues to grow more complex throughout childhood (Lane & Mistrett, 2008).

**Middle childhood.** In middle childhood, kids ages 6 to 10 years old exhibit specific levels of play (Case-Smith, 2001). While the youngest of this age group may still engage in imaginative play, their play begins to become more planned and thought-out. Those who are 7 and 8 years old often play more games that have rules and structure than their younger counterparts. Without the need for an adult, the children often allocate roles and create rules in their games. However, not until nine and ten years of age do children fully understand the meaning of the rules and that the rules apply to everyone who plays the game. Rule adherence usually emerges after children have ignored the rules with resulting peer disapproval.

According to Case-Smith, throughout middle childhood, play can include talking and joking around, with peer play domination both at home and at school. One will usually see cooperative and less self-centered play at this age with a child's ability to control his or her behavior. Best friends, cliques, and competitive relationships are often observed. Some higher cognitive abilities such as abstract reasoning, flexibility, and problem-solving become evident.

In a typically developing child, self-esteem and peer acceptance are often the result of the child's ability to perform physical tasks successfully. At this age, children begin to place less importance on relationships with adults and become more interested in their peers. If a child does not receive

praise from peers, he or she can be less likely to develop close friendships (Case-Smith, 2001). In conclusion, the relationship of play and success with physical tasks affect all children's self-esteem and acceptance.

### **Autism**

The incidence of autism is rising, and its prevalence can be seen in both general education and special education classrooms across America. Although there is a wide range of abilities in children with autism, there are specific areas of delay commonly seen in children who are diagnosed with an autism spectrum disorder.

**Criteria for diagnosis.** The DSM-IV-TR describes the criteria used to diagnose autism. Autism is within the category of pervasive developmental disorder (PDD). People with PDD may show impaired skills in social interaction and communication. They may also demonstrate specific behaviors with limited interests. When people have ASD, they demonstrate the above features of PDD. Those with ASD may not show eye contact or appropriate facial expressions. In addition, they may not develop social relationships with peers as commonly achieved. As people with autism may show a spectrum of abilities, one person may not be able to speak at all, and another may be able to speak but may have limited vocabulary or limited ability to sustain a conversation. Some behaviors that may be seen in people with ASD include finger flicking, rocking, or odd hand movements. Sometimes people with ASD spin objects, form attachments to inanimate objects, and demonstrate narrow interests. For example, one may converse

with a person with autism about horses and then try to shift the conversation towards a company that has manufactured horse barns. Sometimes, it may be difficult for that person with autism to stop talking about the horses to follow the new direction of the discussion. Another common feature of those with autism is the desire for sameness and routine. Sometimes, when a person with ASD has a change in routine (a television show is cancelled due to a news alert), he or she has difficulty adjusting to the change (APA, 2000).

**Areas of delay.** Gamliel and Yirmiya (2009) agree that those with autism have trouble reaching milestones achieved by same-aged peers who are typically-developing. Although there is a gap between what a child with autism and a typical child are able to do by 6 months of age, the separation is more evident by 12 months and is often quite notable by the time the child reaches middle childhood.

During middle childhood some areas where children with ASD may show significant delays include social awareness, reading and responding to social cues, and reciprocal social communication with an increase in social anxiety, desire to escape social situations, and continued obsessions and odd behaviors (Gamliel & Yirmiya, 2009). All of these areas affect quality of play and are affected by decreased playing abilities. In addition, Klinger and Williams (2009) indicate that children with autism often have difficulty developing genuine friendships as a result of deficits in the area of social

skills. Fewer opportunities to play may be a result of true friendships being absent.

As autism is seen as a spectrum disorder, children with autism have staunch variations in their abilities. Therefore, the interventions used to help increase the performance of the child with autism must be graded to the individual.

### **Occupational Therapy Intervention**

An occupational therapist has the knowledge, creativity, and flexibility needed to work with children on the autism spectrum. While there are many areas and environments in which an OT could work with this population, the intervention is always occupation-based.

**Value of occupation.** Occupational therapy (OT) is the art and science of promoting independence in a person's life. With deep roots in mental health and physical human science, occupational therapists can assist persons with any physical and/or mental diagnosis. A core concept of occupation can be defined as "daily activities that reflect cultural values, provide structure to living, and meaning to individuals; these activities meet human needs for self-care, enjoyment, and participation in society" (Crepeau, Cohn, & Schell, 2003, p. 1031). When we focus on a person's occupation, we help correct or accommodate for his or her physical and mental experience to achieve functional outcomes. When a person is working toward a goal that is important to him or her, greater outcomes can be anticipated than if he or she only focuses on an isolated skill or task.

**Occupational therapy domains of practice.** The AOTA (2008) identified specific domains of practice for OTs: activities of daily living (ADLs), instrumental activities of daily living (IADLs), rest and sleep, education, work, play, leisure, and social participation. Within each of these areas lie more specific accounts of occupation.

**Play and social interaction in occupational therapy.** Although all of the identified areas can be affected in those with autism, play and social interaction are the focus of this study. Lane and Mistrett (2008) define play as “any spontaneous or organized activity that provides enjoyment, entertainment, amusement, or diversion” (p. 448). Within the area of play are the aspects of play exploration and play participation. Play exploration can include discovering, practicing, pretending, playing rule-bound games, constructive play, and symbolic play. Play participation involves engaging in play and having a healthy equilibrium between play and the other occupational areas. For full play participation, one must have the ability to properly acquire, apply, and take care of toys and play tools.

Social participation or a social role is defined by Mosey (1996) as “...organized patterns of behavior that are characteristic and expected of an individual or a given position within a social system” (p. 340). Further broken down into areas of community, family, and peer/friend, there is expected social engagement in all three parts.

**Occupational therapy in the school setting.** Couch, Deitz, & Kanny (1998) explored play as an essential foundational occupation in the

field of occupational therapy. They suggested that more research needs to be conducted to thoroughly investigate the role behaviors of play and to communicate the significance of play to other practitioners, clients, and our communities. My research serves as a partial answer to their request. Both Hanft and Place (1996) and the AOTA (1997) discuss the importance of and role of occupational therapy intervention in the public school setting.

Couch, Deitz, & Kanny found that many school OTs focus on motor skills in the school setting and surrender play to other members of their team who may not have the training to appropriately focus on play. As a result, play may or may not be adequately addressed.

**Occupational therapy and play in the school setting.** Kielhofner (2004) discussed that in the school setting, deficits in the areas of play and social interaction can be addressed by the occupational therapist with a student who has autism. Mary Reilly (1974) reported that play is an integral aspect of therapy intervention. Reilly issued the call for both play and occupation to be focused on by future occupational therapists and reminded practitioners that participation in play is an ever-present human need (Reilly, 1974).

### **Identified Play Models**

Linda Florey (1981) purported that an occupational behavior model of practice could be used with children focusing on development and play. She believed that in this frame of reference, the therapist should know about the disease that the child has, be knowledgeable in the area of child

development, and have a thorough working knowledge of play. In this model, she did not include the use of peers in the therapy process (Florey, 1981).

Other models for teaching play and/or social skills also leave out the role of the typical peer: The PLAY Project by Richard Solomon, Greenspan's Floortime Model, discreet trial training, applied behavior analysis, and other behavioral models (Solomon, Necheles, Ferch, & Bruckman, 2007; Smith, 2001; Harris & Delmolino, 2002).

### **Integrated Play Group Model**

There are many differing ideas of how one goes about teaching vital skills to children with autism. One model that is unique considers the advantage of learning play skills from peers. The Integrated Play Group model by Pamela Wolfberg (2003) has partial roots in Vygotsky's thinking about play. He suggested that play is vital to help a child develop social understanding and symbolic representation. In addition, he identified that it is crucial for a child to engage in active participation with others. In this process, a child uses play experiences to expand his or her abilities to function in society (Wolfberg, 2003). In IPGs, there are 3-5 players present, ages 3-11 years. Integrated Play Groups are comprised of both novice players (those who are developing their play skills) and expert players (those who are considered specialists in playing).

**Description of players.** Novice players are those with autism, Asperger Syndrome, or other pervasive developmental disorders with a wide

range of abilities and difficulties. Integrated Play Groups can take place when a novice child has an education plan or therapeutic plan in place (Wolfberg, 2003) and has an identified need to participate in the program. Expert players are those who like playing, have age-typical social skills, and are willing to engage in the Integrated Play Groups for the planned duration. These players are often identified from social settings such as schools or other community settings. Always in a higher ratio to the novice players, the expert players are used to highlight the strengths of the novice players and to help strengthen and grow the novice players' skill set.

**Player selection.** When choosing which players will be involved in each Integrated Play Group, many factors are considered. Wolfberg notes that there is no real advantage or disadvantage to having only boys, only girls, or a mix of the two genders within the IPG. However, some of one gender may share similar interests from another of the same gender. A goal of the IPGs is to expand the novice players' comfort level and ability. Therefore, many Integrated Play Groups attempt to include both male and female players to nurture the novice player's comfort level and facilitate the player moving into a new sphere of ease.

Also according to Wolfberg, increased diversity is often achieved by mixing ages, development, and ability within the IPGs. Each group configuration needs to be decided with special consideration of the novice players. Other considerations include play interests, temperament, play interaction, and social style of each child. In addition, IPGs will work best

when the players share a common primary language. Siblings may engage together within an Integrated Play Group, but this must be decided on a case-by-case basis, according to the needs and strengths of the specific sibling set (Wolfberg, 2003).

**Consent and assent.** Once the desired players are identified, parental permission must be given for involvement. Generally, a letter is sent home to parents or guardians of all desired players that describes the nature of the play group, how and when it will take place, and which adults will be present. Informed consent is usually returned in written form (Wolfberg, 2003). Some researchers suggest that once parents have given permission, then informed assent can be gained from the children (Hill, 2005). This would entail giving the players information about IPGs, answering questions, and giving them the option to stop attending IPGs at any time.

**Training of expert players.** At the beginning of the IPGs, the expert players engage in training sessions that discuss what to expect in the IPGs, how autism may affect the novice players, and how they can react to, play with, and teach the novice players (Wolfberg, 2003).

**Integrated play group logistics.** One attraction to this model is its versatility. According to Yang, Wolfberg, Wu, & Hwu (2003), the IPG model can be used in a variety of settings: school, home, community, or therapy. This model needs to take place within a natural play environment.

Typically, the play groups are held twice weekly, for 30-60 minutes, for the duration of 6-12 months.

Before the Integrated Play Groups begin, individualized visual schedules should be developed for the novice players to use. At the beginning of the IPGs, there can be a session when the children develop a group name and a logo or cheer. In addition, the children can help form rules for the group.

Also suggested by Wolfberg (2003), there is a format that leaders of an IPG should follow. First, there should be an opening ritual that helps structure the session. This could include sitting in the same area at the start of each group with a visual schedule and rules in sight. A song could be useful when the players are greeting one another, followed by a summary of what the children engaged in during the last IPG and what the plan is for the current IPG. At the end, a closing ritual is effective, complete with clean up, gathering in a specific space and review of the session. It can be helpful to plan for the next session followed by a snack and good-byes (Wolfberg, 2003).

**Group themes and tools.** Once organized play areas are designed with clearly defined boundaries and limited distractions, themes for the IPGs may be decided. Wolfberg offers many suggestions for possible activities and tools for use in the Integrated Play Group sessions. Although the possibilities are endless, some themes include eating out, shopping, and cleaning. A traveling theme can be expanded to airports, boats, gas

stations, or taxicabs. Players could use towels, baby dolls, bottles and food, and a highchair if they are “caring for babies.” If the theme is outer-space travel, then it would be useful to have different sized boxes available for a spaceship and control panel. In addition, streamers, space suits, and paper towel rolls (telescopes) would be necessary. When considering themes and tools to use, one should evaluate the safety and durability. In addition, the themes and tools should be developmentally and age appropriate and have high probability of encouraging social interaction and use of imagination. Of course the themes and tools should avoid violence but include diverse cultural ethnic traits with respectful connotations towards all groups of people (Wolfberg, 2003).

**Descriptions of play.** The Integrated Play Groups model discusses four symbolic and five social dimensions of play.

***Symbolic dimensions of play.*** Wolfberg explains the different types of symbolic dimensions of play. The first, Not Engaged, is when toys and objects are not touched by the child and roles are not acted out during play. However, self-stimulatory activity may be present in the absence of typical play. In the Manipulation-Sensory dimension, the child may not use toys or objects in customary ways, but will explore and manipulate them. The child demonstrates a desire to gain sensory input. When a child uses an object or toy as it was intended, the child enters the Functional dimension of play. In addition, the child may associate several objects together such as stacking several blocks on top of one another. Symbolic-Pretend is the last

dimension and includes playing as representational. Children may use play scripts that are detailed and complex. They may use object substitutions, imaginary objects, or role-play (Wolfberg, 2003).

***Social dimensions of play.*** According to Wolfberg, the first social dimension of play is Isolate, when the child does not seem to be aware of others. They engross themselves independently without looking at others. When they enter the Orientation-Onlooker facet, the child will demonstrate being aware of another child. The child may look directly at another child or may look at what the other child is playing with or doing. The next step is Parallel-Proximity, in which the child will play in the same spatial area as another child, but continues to play independently. The child may even use the same toys or materials as the other child, but will not enter into reciprocal play. When the child interacts with at least one other child and shares joint attention they share Common Focus. This is when two or more children may take turns, give social exchanges, and share materials and emotional expression. The last dimension is Common Goal, in which the child plays with others with a defined purpose or achieving a shared goal or making something. In this more complex dimension, the children develop a plan and carry it out. This involves negotiating, planning, and cooperating. A sense of belonging to the group starts to develop (Wolfberg, 2003).

***Social play styles.*** When the child is playing with his or her peers, there are Social Play Styles that have been identified by Wolfberg to be present. The child is Aloof when he or she avoids peers or withdraws. The

child may be unresponsive to peers and does not appear to notice the other children or what they are doing. Passive play is when the child is mostly compliant towards peers but seems to be indifferent towards them. The child demonstrates little to no initiation with other children. In Active-Odd play, Wolfberg describes the child as actively interested in playing with his or her peers. The child may demonstrate social awkwardness when approaching other children, with poor timing. In addition, the child will often obsess about a personal interest and focus on what he or she is interested in through engagement in a one-sided conversation. Play behaviors not clearly delineated into one of the previously mentioned styles are put into the classification of Other. This style is also descriptive of a child's play that incorporates more than one style of play (Wolfberg, 2003).

**Role of guided participation.** According to Wolfberg (2003), Vygotsky supported the notion of guided participation, which the IPG model encourages. This method involves a child's development of engaging in an activity with input from partners who may have contrasting ability (Wolfberg). One alluring aspect of the Integrated Play Group model is the use of the adult to structure and teach with a gradual retreat of adult engagement as the players learn to negotiate the session more independently. During the process by which the children learn to play with less adult support, key practices are used.

Monitoring play initiations helps unveil the attempts made by the novice player to socially interact with the other players. This requires the

adult to recognize and appropriately respond to the minute ways in which the player communicates his or her intentions. Scaffolding play is when a novice player initiates play and the adult slightly grades the activity to match the players' ability or increases the stakes at such a gradual amount that the player could reach the new level of play. In social-communication guidance, the adult gives support to both the novice and expert players to help them communicate verbally and nonverbally with one another. The goal is for the players to pick up on each others' cues and engage jointly in the play activities. The last practice is play guidance that focuses on developing strategies to help the novice players reach just beyond their current abilities to fully engage in the play experience at each player's individual level (Yang et al., 2003). These four practices can be used to wean adult support and allow the IPG to be run more solely by the players with diminishing adult influence.

**Integrated play groups in practice.** The integrated play group model was originally put into practice in America. However, in 2003, Wolfberg also expanded the implementation of IPGs to Taiwan. It would be beneficial to explore additional studies of the IPG model both in the United States and abroad.

**Play group implementation in America.** Wolfberg and Schuler (1993) described their method of play (the IPG model) as providing a system of support to encourage peer play within an environment arranged to facilitate most competent forms of play and by guiding participation of the

players. This model boasts its use of natural settings, well-designed play spaces and materials, use of familiar routines, and balanced play groups. In addition, the ideology of child competence, guided participation, and full immersion in play truly define this model. To test the efficacy of this model, the authors researched their approach. After seven months, with three play groups and three targeted children with autism, the play groups could be considered successful. Each novice player showed decreases in manipulation and increases in functional use of play objects. All had decreases in isolate play and had increases of common focus and parallel/proximity dimensions of play. When guided participation was withdrawn too soon, behavior gains of novice players in this study were not maintained, suggesting that guided participation should continue for some period. With further adult support that was later phased out, the students were able to maintain higher levels of play than identified at their baselines. This shows the importance of guided participation in the Integrative Play Group model (Wolfberg & Schuler, 1993).

***Play group implementation abroad.*** Integrated Play Groups have been piloted in the United States but had not been tried outside of America before Yang and colleagues (2003) pursued this model in Taiwan. They set out to investigate the application of the IPG model in home and school settings in Taiwan with adopted children with autism. They were interested in the impact that the different culture and languages (Chinese and Mandarin) could have on the model. In this study, two children with autism

and three expert players were involved in the IPGs. At the end of the six months, they found that both novice players had an increase in parallel and common focus play styles and demonstrated less isolate and orientation style play, indicating the effectiveness of this model outside of the United States. Both children in this study made gradual progress in social and symbolic play throughout the course of the Integrated Play Groups. At the end of the study, the parents and expert players gave high reviews of the IPGs. Parents of novice players reported that their children demonstrated progress in social and symbolic play. The two novice players verbalized having friends for the first time ever. In addition, the three expert players reported that they took pleasure from the IPGs and enjoyed playing regularly with the novice players. No further information was given about the expert players' experiences (Yang, Wolfberg, Wu, & Hwu, 2003).

### **Acceptance Scales and Studies**

There are several formal instruments, qualitative methods, and case studies to investigate when deciding which formats give the best match with the current study. In this section, all three areas will be examined.

**Available tools.** Formal acceptance scales and the use of qualitative methods can give answers to specific questions being asked. There is research to give reasoning for the use of both styles. Some researchers choose one aspect to collect data for their study, while others choose a mixture of methods.

**Formal instruments.** The literature is rich with a variety of instruments that measure children's attitudes towards their peers with disabilities. Vignes, Coley, Grandjean, Godeau, and Arnaud (2008) reviewed the literature and investigated available instruments that are the most thorough, have strong validity, and other key aspects important in measurements. They found that the most comprehensive instruments are the Chedoke-McMaster Attitudes Towards Children with Handicaps (CATCH) scale and The Acceptance Scale.

Attitudes are known to possess three components: affective, behavioral, and cognitive. Vignes et al. (2008) identified the affective component as addressing feelings and emotional reactions. The behavioral component is represented by actual or intended behavior while the cognitive component reflects personal knowledge and beliefs. Both the CATCH and The Acceptance Scale included all three aspects of acceptance. Of the two suggested scales, both demonstrate construct validity. The CATCH had higher internal consistency and test-retest reliability than The Acceptance Scale. In addition, the CATCH has had more use since its creation with more recent studies than did The Acceptance Scale (Vignes et al., 2008). Colver (2008), in a commentary on this review of these instruments, added that the CATCH is meant to be used with children ages 8 to 12 and can be administered in roughly 15 minutes. My examination of both instruments determined that the CATCH was more reflective of the types of questions

desired for this particular study. Coupled with the other information given, the CATCH was chosen to help address the research question.

**Focus groups.** Focus groups have been in use for decades with adults but are just beginning to emerge when conducting research with children. Although researchers are still finding their footing on how focus group methods are altered for use with kids, they are still accepted and often preferred as a means of data collection (Gibson, 2007; Heary & Hennessey, 2002; Morgan, Gibbs, Maxwell, & Britten, 2002). Focus groups can be used to truly understand how a group of people, of children, feel about an experience they have lived.

**Acceptance of children with disabilities.** When using scales to measure attitudes toward children with disabilities, it is wise to take into account the social desirability factor. Morgan, Bieberich, Walker, and Schwerdtfeger (1998) performed a study that examined children's feelings about sharing activities with a physically handicapped classmate. In this study, the children also rated how they thought their classmates would answer. When completing the Shared Activities Questionnaire (SAQ) about themselves, they reported higher ratings towards a peer in a wheelchair than towards a peer who is able to walk. When filling out the SAQ about how the participants thought their peers would respond, they rated the ambulatory peer higher. When comparing scores of the two tests, they found that SAQ-Self ratings would trump SAQ-Others ratings of a child using a wheelchair, but when rating a walking child, the two scores would

not differ. This study supports the theory that these children, 7-11 years old, are in Piaget's concrete operational period, resulting in a desire to act in a way that is accepted by others. They may have responded to the SAQ's in the way that they did because they want to illustrate themselves in a socially accepted way (Morgan et al., 1998). This study highlights the importance of the social desirability factor when working with children of this age.

Holtz and Tessman (2007) completed work that helps support the idea of educating children to foster peer acceptance of students with disabilities. Particular to those with Tourette syndrome, they found greater positive attitudes, awareness, and intentions in behavior among students who were shown a video about the syndrome than those in a control group who were not shown the video. Vignes, Godeau, Sentenac, et al. (2009) determined that there are several individual and environmental factors that can affect how students view a peer with a disability. Using the CATCH and other instruments, they found that the presenting factors could be changed through intervention. Specifically, interventions that educate children on disabilities and encourage children to befriend those kids with disabilities are of high value (Vignes et al., 2009). Alternatively, research about the attitudes of college students suggested with the CATCH that education is not enough to transform attitudes (Budisch, 2004).

### **Summary of Current Research**

If programs are not in place to promote acceptance and social integration, then children with disabilities will be less accepted by their typically developing peers (Favazza, Phillipsen, & Kumar, 2000). Without specific assistance, those children with autism will demonstrate wild disparity between their own abilities to play and socialize and the abilities of their peers. While the Integrated Play Group model shows potential in its ability to help increase the repertoire of those with autism, more research needs to be done on the affect of IPGs on typical peers' attitudes towards their classmates with autism. A combination of the CATCH and focus groups may be helpful in providing this insight.

### **Chapter 3: Methodology**

This chapter describes a mixed methods approach and the types of quantitative and qualitative approaches that were used in this research project. In addition, a complete account of the research process is discussed.

#### **Mixed Methods Design**

In this study, it was appropriate to make use of multiple styles in order to fully answer the research question. Using just one approach did not answer the question in the depth that could be gained from using both approaches together. According to Creswell (2003), the use of both quantitative and qualitative research together is becoming increasingly more common.

In the current study, both research methods were used since both approaches provide vital elements for data collection; however, one method served as the core of the study (Corcoran, 2006). Phenomenology was used as the prevalent qualitative method. As Corcoran suggested, when two methods of inquiry are used, one should be held central to the study. The priority should be given to one method, throughout the study's purpose, methodological decisions, and overall approach (Corcoran, 2006). In phenomenology, the analysis of a participant's lived experience helps reveal an essence of a phenomenon. According to Creswell (1998), essence is "...the central underlying meaning of the experience" (p. 52). This quality of phenomenology gave a closer alignment to what the researcher desired than

the other types of qualitative inquiry methods. Use of a pre- and post-test acceptance scale was used to supplement the qualitative core.

**Qualitative inquiry.** In 1998, Creswell defined qualitative research as “...an inquiry process of understanding based on distinct methodological traditions of inquiry that explore a social or human problem. The researcher builds a complex, holistic picture, analyzes words, reports detailed views of informants, and conducts the study in a natural setting” (Creswell, 1998, p.15). This study is most closely aligned with the phenomenological view of qualitative inquiry. There were six expert players involved, and the researcher desired to delve into the participants’ lived experiences of the Integrated Play Groups. As indicated by Luborsky and Lysack (2006), phenomenology embraces “...an assumption that there is a structure and essence to personal experience that can be communicated to others in a systematic way, often using narratives” (p. 336). One difference between phenomenology and other styles of qualitative research is the assumption that the sense and meaning of the lived experiences of the participants is only entirely known by those who share the experience. In phenomenology, he or she inspects the participants’ experiences in the way they articulate them (Luborsky & Lysack, 2006). Supported by both Creswell (1998) and van Manen (2002), the researcher practiced bracketing or suspension of any prior thoughts until justified through data analysis, known as epoché. To support data collection in this form of research design, focus groups were used at the beginning and end of the Integrated

Play Group sessions. Focus groups were chosen as the method of data collection, since they could provide the environment and atmosphere most conducive to this specific group of participants in this study. Conducting focus groups with the children seemed less intimidating than one-on-one interviews. The goal was to increase the participants' comfort level and subsequent participation in the study. Later, the student responses were analyzed to give answers to the research question. Jongbloed (2000) identified several ways to analyze the data. Through reading field notes and focus group transcriptions, and coding transcripts of the focus groups, themes emerged to illuminate the participants' experiences. Thus, insight was gained into my initial research question. Focus groups are further described later in this chapter.

**Quantitative approach.** Since this study explored the attitudes of typical peers towards the students with autism, I included the use of a standardized attitude scale that has been successfully used with this age group and documented in the literature (Rosenbaum, Armstrong, & King, 1986; Budisch, 2004; Vignes et. al., 2009). This scale was used both before and after the IPG sessions. Experimental research is strengthened when pre- and post-test measures are used to support an assumption (Creswell, 2003). To measure the expert players' attitudes, Rosenbaum, Armstrong, and King's Chedoke-McMaster Attitudes Towards Children with Handicaps (CATCH) scale was used (1986). Its use will be delineated later in this chapter.

**Triangulation.** In order to solidify credibility of the results of this study, triangulation was used. According to Lysack, Luborsky, and Dillaway (2006), “Triangulation refers to the use of two or more strategies to collect and/or interpret or analyze information” (p. 353). The strategies used were the pre- and post-surveys and the pre- and post-focus groups. In addition, Eastern Michigan University faculty members reviewed both the survey that was used and the questions asked in the focus groups. As one faculty member is well-versed in experimental research and the other in qualitative inquiry, this helped ensure that the appropriate inventory and questions were employed.

### **Research Question**

Many aspects of Integrated Play Groups continue to be researched today. This study will help illuminate the IPGs from the perspectives of the expert players. It is important to more fully understand the experiences that these players have, to reveal their lived experience of IPG involvement. In addition, gathering the expert players’ opinions towards the novice players is instrumental in supporting the increased use of Integrated Play Groups in schools. Thus, the research question is: What can be learned about typical peers’ attitudes and acceptance of students with ASD through the expert players’ reflections on Integrated Play Group involvement?

### **Player Selection**

Prior to the start of IPGs, both the novice players (children with ASD) and the expert players (typically developing peers) were selected to

participate. The following steps were followed to ensure desirable fit with this model, student rights compliance, and parental permission.

**Novice players.** Novice players were selected from students at the elementary school who had been identified with a diagnosis of autism. The school where this study took place sits in the heart of a large midwestern city with an ethnically diverse population. The classroom teachers who know the children identified which four students had a specific need to increase his or her play skills and social abilities. Students not able to tolerate the play group setting were excluded from this study. Once the participants were chosen, they were further separated into two different IPGs by age and developmental ability with assistance from the classroom teachers.

**Expert players.** The school social worker was instrumental in helping identify possible peers to engage as expert players. Participants were chosen from the third and fourth grades and were 8-10 years old. These six players had adequately developed play and social skills reflective of age-based norms in typically developing children. In addition, they did not have a diagnosis of autism and they expressed willingness to engage in the program for its duration. A key characteristic that is necessary for group involvement is the desire to play! Although researcher suggestions were taken, final selection was made by the school social worker.

## **Introductory Procedures**

Several details were worked out in the preliminary stages of the IPGs. Informed consent was gained from the participants' parents or guardians, with subsequent informed assent gained from the participants. Other details like meeting places and times were also worked out with both the expert and novice players and school staff.

**Human subjects review, informed consent, and assent.** Prior to gaining informed consent, approval was sought out and permission gained to conduct research involving human subjects through the University Human Subjects Review Committee at Eastern Michigan University (see Appendix H). In addition, written permission was gained from the school district in which this study took place.

To protect the rights of the participants in this study, their parents were informed of the research purposes and methods through formal letters (see Appendix F) and follow-up phone calls. Once all questions were answered, they provided consent. If any parent did not give consent, the child was excluded from the study and another child was chosen. It was made clear that at any time, the parent could choose to remove his or her child from the study for any reason and without explanation. Parents of both the novice and expert players provided written informed consent for involvement in this research study. Once consent was given, additional assent (see Appendix G) was gained from the expert players to explain that they could, at any time, choose to stop attendance in the IPGs.

**Expert players.** Before any training was conducted, the expert players met to take the pre-test (revised) CATCH (see Appendix A) to create a baseline of their attitudes towards their peers with autism. The CATCH contained 36 statements and required the child to choose the statement that best described how they felt about the statement. Based on the Likert Scale, the words *strongly agree*, *disagree*, *can't decide*, *agree*, and *strongly agree* were the choices for each statement. After instructions were given and before the 36 CATCH statements were administered, two sample statements were used to measure each child's understanding of the way he or she was to fill out the form.

While the original CATCH measures what is being looked at, the wording was best changed to reflect both person-first language and the diagnosis of the children involved. For example, instead of "I would stick up for a handicapped child who was being teased" (Rosenbaum, Armstrong, & King, 1986), it was re-stated "I would stick up for a child with autism who was being teased." Full permission to change the wording as shown was granted in writing by an original author of the instrument (P. Rosenbaum, personal communication, October 20, 2009). Although support was given for word alteration, Rosenbaum requested that the scaling and scoring remain as originally printed.

**Novice players.** To begin building rapport between researchers, building staff, and players, a few introductory IPGs were held. This gave the students with autism an opportunity to adjust to a new routine and new

people present in their school day. The groups took place in areas of the school that were familiar to the novice players such as the playground and OT room. In addition, the groups included activities that promoted the novice players' success.

### **Expert Player Involvement**

Expert players engaged in a variety of activities other than the actual IPGs. After the initial focus group, the players participated in two training sessions involving playing with children with autism and IPG design. After the delivery of all IPGs, the experts took part in a final focus group.

**Initial focus group design.** There were many aspects taken into consideration to ensure optimal focus group construction and delivery with the expert players. Group size and location, format, substance, and delivery was carefully chosen based upon available literature and school logistics.

**Place and group size.** The first focus group with the expert players took place in the occupational therapy room of the school. Free from ample distracting stimuli, it provided a more comfortable environment that was not filled with student desks but with mats on an open floor space. All six expert players were asked to participate in one session rather than two sessions of three students each. Current research gives support to the use of 4-5 participants per focus group when working with students of this age (Gibson, 2007; Morgan, Gibbs, Maxwell, & Britten, 2002). Further supported by current studies, the use of more than this number of participants can be difficult to manage, hear answers, and focus. However,

for this study, six participants were chosen because three may be more problematic. As suggested by Gibson (2007), a small group may result in parallel interviews. In addition, with three participants, it has been noted that participation may be more limited with constant questioning by the leader and less discussion between group members (Morgan et al., 2002). The group was recorded on two devices to record the group's answers and to be used as a back-up, in the event that a child's voice could not be heard or understood. A transcription was typed from the audio recording.

As suggested by the literature (Kennedy, Kools, & Krueger, 2001; Morgan et al., 2002; Heary & Hennessy, 2002), the session comprised two 20-minute sessions to ask deeper questions. The two intervals were broken up by a drawing activity that investigated the fifth question.

***Moderator attributes.*** Hill (2005) and Morgan et al. (2002) provided insight as to preferred characteristics of the facilitator. Several of these attributes were employed during this study to better balance the power between the adult leader and children participants. First, the moderator dressed in a less intimidating manner with more comfortable clothing - jeans and tennis shoes. Next, she sat on the floor amongst the participants, in a circle, rather than in a place of authority. Relaxed body language was used to place the children at ease and feel less rigid during the session. Rather than going by a formal name, she was addressed as Miss Karen. A total relinquish of adult identity was not given, but the other considerations

were employed to help increase the childrens' comfort levels and their subsequent contributions to the group.

**Co-facilitator.** The use of a co-facilitator was employed to assist with the recording device and to help maintain the pace of the group as Morgan and colleagues (2002) suggested. This co-facilitator, an Eastern Michigan University faculty member, recorded written observations of the group, statements, and overall atmosphere of the focus group. She had extensive prior experience in child observation and recording.

**First Activities.** Three rules were explained for the group: (1) Only talk when you are holding the special object, (2) No "put downs"; everyone's ideas are important, and (3) There are no wrong answers! These rules were written down so the children could refer to them in visual format for the duration of the focus group. A fun ball was used as the special object and changed halfway throughout the session to inspire novelty and use. It was explained that they could "pass" if they did not want to answer a question. They were also reminded that at any time, they could leave the focus group if they felt uncomfortable.

To open, the facilitator encouraged each participant to tell the group his or her name again and a favorite television show. The next time around, they were to describe their favorite toy to play with. During these opening exercises, the special object was used to give the children the experience of becoming accustomed to its role in the focus group session.

**Questions.** Once questions were asked, further probing was used to clarify what the child had said. If a child preferred not to answer, he or she said “pass” and could choose to answer later. When a child offered up an idea, that idea was often used to spur a new tangential question. The questions below were asked.

1. Do you know what a disability is?
2. Do you know anyone with a disability?
3. Do you know what autism is?
4. Do you know anyone with autism?
5. What are some of the things that people with autism might do that are different than you?
6. Have you had a chance to help or play with anyone with autism?  
What was that like?

**Wrap-up.** At the end of the group, a review was given of what was discussed, and the facilitators thanked the children for their participation. A reminder was given of when the next meeting was scheduled to take place.

### **Expert player training**

**Session one.** The first training was held after the CATCH and initial focus group were both completed. This helped ensure that both methods retrieved information that was free of predisposed information. The first training session was held in the OT room, began with a reminder of the rules given in the focus group, and was led by two facilitators. Then, a picture book, *Taking Autism to School* by Edwards (2001), was read to the

students. This book defined autism and showed key attributes associated with the disorder. Afterwards, a discussion ensued to give the expert players an opportunity to ask questions and to further explain the nature of autism. When the participants had lulls in question-asking, one of the moderators would give insight into autism and the book, to inspire questioning. Then, there was a game of “Simon Says.” First the game was played as expected; then it was played with alterations by the moderators. One moderator provided additional sensory stimuli and the other changed the rules without telling the students. Afterwards, a discussion was encouraged to explore how the game simulated the experience that a child with autism may have. At the end of the session, an overview of the first half of the needed sign language signs were identified and shown. All players had the chance to practice the signs. The signing symbols handout was given to each expert player to take home and keep. Instructions were given to practice the signs.

**Session two.** The second session kept the same key ingredients as the first session. *The Autism Acceptance Book* by Sabin (2006) was used to inspire a discussion. One moderator led the discussion while the other assisted in maintaining a rich conversation between the group members. Specifically, the second moderator asked clarifying questions and turned the students’ questions into new topics to discuss. Afterwards, the expert players were asked to help come up with rules for the subsequent IPGs. One moderator led this discussion while the other wrote the participants’

ideas down. A final decision was agreed on by all participants as to which rules should be used. These were later put onto a poster board for use in the IPGs.

Next, a scenario was given that they had already encountered during the introductory play groups. One adult acted as a child with autism. Three student volunteers acted as expert players, and the other three as observers. The second adult acted as an adult assistant in the play group. Instructions were given to role-play how to include the child with autism into the current activity. At the end, a round-table discussion was held to come up with ideas and talk about what worked and could be improved upon. Last, the second half of the sign language signs were discussed and modeled. Then, a game was played that encourages all group members to practice the new signs.

**Integrated play groups.** Integrated Play Groups were held in the manner discussed in Chapter Two. Two groups of two novice players and three expert players met twice weekly for 30 minutes for two and a half months, at the same time every week. This promoted stability of routine for the novice players. The groups followed the same format each time:

1. Opening ritual (greeting song, review rules, view and discuss schedule, and ice breaker game)
2. Play
3. Closing ritual (clean up, gathering, review, plan for next session, and goodbye song)

**Final focus group.** The final focus group followed a similar format as the first. A new technique was used: narrative interviewing. Examined by Lawlor and Mattingly in 2001, this method gives the focus group participant the opportunity to put his or her ideas into his or her own words, with focus made clearer by the participant, rather than by the facilitator. An example, “Tell me about a time in focus groups that really excited you,” could provide more insight than “What was exciting about focus groups?” Specifically, the questions below were asked:

1. Tell me about a time that you enjoyed during play group.
2. Tell me about a time that made you scared or upset in play group.
3. Do you have any friends in play group?
4. Tell me about the children from play group.
5. Tell me about a time you talked to or played with a novice player outside of play group.
6. When do you think you may see or play with one of the children with autism again?

As in the first focus group, often the answers given by the participants spurred new tangential questions. After the third question, we played a game to give the children an opportunity to move around and take a break. I asked questions that required a yes or no answer. If the participants answered yes, they stood on one side of the room. If they answered no, they stood on the other side. Some questions I asked were:

1. Do you have brown hair?

2. Do you like to take your Oreos apart first and then eat them?
3. Do you like to come to play group?

After the game, we had a short discussion on how it makes them feel to be in a group by themselves. Then I compared it to how some students with autism may feel if they are left out.

### **Analysis of Data**

**CATCH 1 and 2 scoring methods.** The CATCH was given as both a pre-test and a post-test, with a null hypothesis was assumed – the scores on the post-test will be the same as the scores from the pre-test. To create an unbiased atmosphere during the scoring process, names were not used on the CATCH. Numbers were randomly given to each participant and were listed on each CATCH survey given and each corresponding score sheet.

The odd items on the CATCH were scored positively, as follows:

Strongly disagree = 0

Disagree = 1

Can't decide = 2

Agree = 3

Strongly agree = 4

The even items on the CATCH were scored in reverse (negatively), as follows:

Strongly disagree = 4

Disagree = 3

Can't decide = 2

Agree = 1

Strongly agree = 0

To keep consistency in scoring, I gathered all the scoring sheets prior to actually scoring the surveys. I circled every even number, as a visual reminder to code in reverse. Then I created a key of 0-1-2-3-4 that visually matched up with each of the five answer options. I scored every participant's odd number answers. Next, I created a key of 4-3-2-1-0 that visually aligned with each of the five answers. After that, I scored each participant's even number answers. After all items were scored, the CATCH inventories were put away and I focused on the twelve score sheets. On each sheet I totaled the scores given for all odd and even questions. Then, I divided the total number by the number of questions – 36. As further directed by the CATCH authors, this number was then multiplied by 10. This derived the final score for each participant's pre-test and post-test. This process was completed twice, to ensure accuracy.

**Analysis of CATCH results.** The scores from the pre- and post-test of the CATCH were entered into statistical package for the social sciences, version 19 (SPSS). Then the numbers were analyzed by comparing means through a paired-samples t test. In a paired-samples t test, the same group has pre- and post-test scores (Kay, 2005). The post-test scores were given as variable one and pre-test scores as variable two. As the majority (four out of six) of participants had higher post-test scores, this was the most appropriate method. In addition, I ran the related-samples Wilcoxon signed rank test in SPSS. When working with a smaller sample size, this is the

nonparametric test that is often used as an alternative to the paired-samples t test (Norusis, 2008).

**Focus group analysis.** As previously outlined, two focus groups were held, and both were audio recorded. Each recording was digitally transcribed, using first name initials for each of the participants. Then, the text was moved into a column on the left side of each paper, leaving the right side blank for the assigning of labels. According to Creswell (1998), phenomenological data analysis in qualitative research includes “the ambitious task of sorting through large amounts of data and reducing them to a few themes or categories” (p. 16). The sentences from the transcriptions are normally given codes or labels and then grouped into categories. Last, the categories are reviewed and then grouped into broader themes. These themes tell the story of the lived experiences of the participants. I read each line of the transcript and then underlined key elements. I completed this aspect of data exploration by hand, as I had a manageable amount of data. For each underlined passage, I then hand-wrote labels or phrases in the right column. Whenever possible, the student’s exact words were used. When another word or phrase was appropriate, it was written in (Phase 1). Then the newly written comments were compiled into a new document, with the page number of the original record listed, where each comment could be found (Phase 2, see Appendices B & C). By listing the page number, I was able to go back and read the context of certain statements. This helped me group the codes into

categories. After that process, I re-read each focus group transcript. I compiled a list of common categories for each group (Phase 3). Then I color-coded each category one at a time with different colors of pencils. Next I read through the Phase 2 list and underlined each code in the appropriate color, according to the Phase 3 list (Phase 4, see Appendices D & E). At times, a new code would need to be added to the list, with an additional color chosen, as a new category had emerged. For the first focus group, Phase 2 yielded 162 comments with 15 categories (Phase 4). For the second focus group, Phase 2 produced 149 comments with 18 categories (Phase 4).

After Phase 4 was completed, Phase 5 pursued the tightening of the listed categories. During this stage, I narrowed the ideas down to six themes for group one and five themes for group two. Phase 5 was compressed into Phase 6 with four overall themes for each of the first and second focus groups. These themes are discussed in detail in Chapter Four.

### **Summary**

A mixed methods design of both quantitative (the use of a pre- and post-test measure) and qualitative (phenomenological) techniques was used to investigate the attitudes of typically-developing students towards their peers with autism. Attitudes were assessed at the beginning and ending of Integrated Play Group sessions. Initial and final focus groups allowed me to gain insight first into the children's knowledge and experiences with those with autism and finally to understand their lived experiences of Integrated Play Groups and final view of their peers with autism. Results of both

methods were examined and searched for themes and outcomes to more fully answer the research question.

Simultaneously, a separate study was conducted on the effectiveness of the Integrated Play Group model on the students with autism.

Observations of the novice players were recorded on the playground, in the lunchroom, and in the classroom to determine changes in the children's behaviors and play styles from the beginning of the IPGs to the end.

## Chapter 4: Results and Analysis of Data

### CATCH 1 and 2 Results

After scoring the two CATCH scales, specific values surfaced. This information is recorded in Table 1 and explored below.

Table 1

#### *CATCH Scores*

	Pre-test	Post-test	Difference
Mary	33.33	31.11	-2.22
Gavin	31.67	33.33	1.66
Kyle	20.83	19.17	-1.66
Matt	23.33	25.83	2.5
Brock	25.28	29.17	3.89
Ron	23.61	28.06	4.45

The pre-test and post-test scores are listed for each participant in Table 1. Individually, the changes in score are listed in the differences column. The differences are found by computing post-test minus pre-test for each participant. The negative numbers indicate that a participant had a decrease in scores from the pre- to post-test. The positive numbers show an increase in scores from the pre- to post-test.

Once the scores were obtained, they were entered into SPSS. First, the numbers were analyzed through a paired-samples t test.

Table 2

*Paired Samples Test (Post-test – Pre-test)*

Paired differences				
			95% Confidence interval of the difference	
Mean	Std. deviation	Std. error mean	Lower	Upper
1.43667	2.80143	1.14368	-1.50326	4.37659

t score	Degrees of freedom (df)	Sig. (2-tailed)
1.256	5	.265

A mean of 1.43667 was computed and indicates the average difference between the post-test and pre-test scores is 1.43667. The standard deviation shows how much variation there is from the mean, or average (Urdu, 2005). The standard deviation in this study is 2.80143. To calculate the expected standard deviation if samples were taken across the population, rather than these six specific participants, one would come up with the standard error of mean, 1.14368. The lower and upper numbers show that with 95% confidence, one can assert that the average difference falls no lower than -1.50326 and no higher than 4.37659. The degrees of freedom (df) number is the total number of participants minus one (Spiegel & Stephens, 2008). The t score is needed to check against a t score chart

(Urdu, 2005). In this case, it is  $6-1=5$ . When  $df = 5$  and we want at least 95% confidence level, then the  $t$  score must be higher than 2.571 to reject the null hypothesis. In this study, the  $t$  score is 1.256. The number of 2-tailed significance (.265) shows that there is 26.5% probability that under the null hypothesis these results would be found. This statistic is also commonly referred to as the  $p$  value and shows if the two means are statistically different (Urdu, 2005).

In the additional Wilcoxon test, .207 was revealed as the number of two-tailed significance. All of this information is important to help us learn about typical childrens' attitudes and acceptance of students with ASD.

### **Discussion of CATCH Results**

When comparing the pre- and post-test combined scores of all six participants, the rounded difference is 1.44. When comparing by age, the third graders (Mary, Kyle, and Gavin) had either a decrease or smallest gain in acceptance. The fourth graders (Matt, Brock, and Ron) showed the most notable gains in acceptance.

Two of the students had decreased scores, Kyle with -1.66 and Mary with -2.22. Mary was an interesting contributor. From the beginning, she had a natural ease about her when playing with the novice players. She took a specific interest in the female novice and was able to interact on a most intimate level with this novice player. Mary was able to come up with ideas to engage the novice but required adult assistance when the novice had times of decreased focus. Midway through the play groups, she spoke

one-on-one with the researcher. She relayed that she feels frustrated when she tries to play with the novice and the novice does not react immediately or positively. She also commented that she does love IPGs and especially enjoys teaching the novices new skills. During a different play group Mary commented “Every day is fun, but I can’t figure out which is funnest.” This information was gained from field notes by the researcher conducting the IPGs. Perhaps Mary’s introspective spirit contributed to her decreased score on the 2<sup>nd</sup> CATCH. She may have felt a little defeated when she wasn’t able to connect with the novice. Also in the field notes, a researcher disclosed “novice did not spend much time with Mary, although Mary certainly tried.”

Gavin increased his CATCH score by 1.66, Matt by 2.5, and Brock by 3.89. The player who showed the largest difference in scores was Ron, with an increase of 4.45. When referencing the field notes, it was revealed that the group of fourth graders engaged in quite a bit of physical touch with the novice players. Both Brock and Ron were independently able to facilitate ample play with the novices. In the last session, Ron said he would like to sit by his friends (the novices) at the upcoming assemblies.

Other data gained from the SPSS analysis indicates that there is 26.5% probability that under the null hypothesis these results would be found. The Wilcoxon Signed Rank Test shows 20.7% of the same probability. The null hypothesis would have been rejected with a score of 5% or less. When considering either analysis, this suggests that there is not enough evidence based on the CATCH scores alone, that being involved in

IPGs made a statistically significant difference in the level of acceptance that the expert players have of the novice players. However, since four of the six participants increased their acceptance of those with autism, good trends are showing. The fact that there are only six participants can have an impact on the overall significance of this trend. If more participants had been involved in IPGs and taken the CATCH survey, the trends may have been highlighted as significant.

### **Focus Group Results**

As outlined in Chapter Three, the comments made by the participants were sorted into specific themes and subthemes. These themes are described in Tables 3 and 4 below.

Table 3

#### *Focus Group #1 Overall Themes*

Believing those with autism or disability are different than us
▪ <i>Lacking ability</i>
▪ <i>Needing assistance</i>
▪ <i>Acting different than us</i>
▪ <i>Physically acting different than us</i>
Believing those with autism or disability are similar to us
Having limited understanding and opportunity to engage
▪ <i>Having opportunity to engage with those with autism</i>
▪ <i>Having had interaction with someone with autism</i>
▪ <i>Feeling happy about interaction</i>
▪ <i>Knowing person with autism or disability</i>
▪ <i>Having some understanding about disabilities</i>

Lacking understanding and opportunity to engage
▪ <i>Lacking opportunity to engage with those with autism</i>
▪ <i>Not having had interaction with someone with autism</i>
▪ <i>Not knowing person with autism or disability</i>
▪ <i>Lack of understanding about those with autism</i>
▪ <i>Not understanding about those with autism</i>
▪ <i>Feeling embarrassed</i>
▪ <i>Feeling scared</i>
▪ <i>Hurting me or someone else</i>

Table 4

*Focus Group #2 Overall Themes*

Experiencing positive direct interaction with novice players
▪ <i>Enjoying direct interaction with novice</i>
▪ <i>Experiencing enjoyment</i>
▪ <i>Seeing novice improving</i>
▪ <i>Enjoying physical touch with novice</i>
▪ <i>Enjoying novice's positive reaction</i>
▪ <i>Enjoying causing novice's positive reaction</i>
▪ <i>Wanting novice to interact more</i>
▪ <i>Feeling scared or worried at first, then overcoming</i>
▪ <i>Creating friendships with students with autism</i>
▪ <i>Enjoying making friends in IPGs</i>
▪ <i>Feeling accepted by novices</i>
▪ <i>Currently interacting with novice outside of IPGs</i>
▪ <i>Worried about novice's well-being</i>
▪ <i>Feeling frustrated he or she couldn't help novice more</i>
Wanting continued contact with novices
▪ <i>Hoping for future interaction with novices</i>
▪ <i>Will be missing IPGs and IPG friends</i>
Feeling novices are different from us
Feeling novices are similar to us

### **Focus Group #1 Clarification and Discussion**

The first focus group aimed to create a baseline understanding of what the participants believed and comprehended about students with ASD. It is expected that by comparing the first focus group outcomes to the second focus group information, the researcher can better recognize if and how the students have changed their attitudes and acceptance of students with ASD. Four themes emerged from the first focus group.

1. Believing those with autism or disability are different from us
2. Believing those with autism or disability are similar to us
3. Having limited understanding and opportunity to engage
4. Lacking understanding and opportunity to engage

#### **Believing those with autism or disability are different from us.**

There was a large number of comments that comprised this category. Mary had an insightful description of disability: “I think a disability is when you don’t have the power to do something.” Many of the participants’ ideas had to do with an inability to do specific things like walking, talking, or playing games that children typically play. They also believed that students with autism act different from how typical kids act. Ron commented, “They might say weird sounds, or they might not act like we do.” The students had comments that suggested that the children with autism also act physically different by running away and banging on doors. Brock suggested, “They lay on the ground and start pounding and crying, and try to get away from whoever is teaching.”

**Believing those with autism or disability are similar to us.**

Several participants gave comments which had a theme of the children with autism acting similar to children who are typically developing. Matt described a boy with autism by saying, “he has light brown hair.” Other ideas surfaced that those with autism may have a favorite playground spot, may like swinging, or may like to jump on a trampoline. These thoughts are all things that a typically developing child may enjoy.

**Having limited understanding and opportunity to engage.** Some of the children were able to identify a time when they had interacted with or observed a child with autism. In the comments relayed by the students, these moments were all very limited in nature. However superficial the level of exposure, they were still opportunities to see what kids with ASD can be like. In this theme, the students revealed if they knew a child with autism. Brock stated, “I live across from an autistic girl,” while Matt said, “I’ve only seen an autistic kid once.”

**Lacking understanding and opportunity to engage.** Throughout this theme, it became apparent that the participants had misconceptions about what it meant to have ASD. These ideas were highlighted by feelings of embarrassment and unjustified thoughts of fear. When Matt described the picture that he drew in the first focus group, he said, “This is the autism kid and this is me. And he’s jumping on a trampoline and he’s mad so he’s banging me on my head. And that’s his hands going up and down like this.” Earlier he had stated that he only had seen a child with ASD once. He

described the encounter and did not mention the child acting mad or violent. There is a disconnection between the experience he has had and his view and acceptance of children with ASD. This could be a result of hearing other classmates talk about their experiences with children with ASD. Other participants clarified that they had not had a chance to meet or interact with someone with autism.

### **Focus Group #2 Clarification and Discussion**

Questions asked in the second focus group were worded in a way to encourage the participants to tell their stories of how they experienced IPGs. As a result of the second focus group, four themes emerged.

1. Experiencing positive direct interaction with novice players
2. Wanting continued contact with novices
3. Feeling novices are different from us
4. Feeling novices are similar to us

**Experiencing positive direct interaction with novice players.** The second focus group revealed an overwhelming number of comments that suggested the participants enjoyed interaction with those with ASD. Mary stated, “I really, really enjoyed it. And it felt sort of cool to be with somebody with autism and see how they really act and actually play with them.” Kyle said that he wanted to continue doing IPGs every year and added, “because it’s so fun.” When questioned about what he thought was fun about it he responded, “They get to learn how to play.” Other ideas suggested that the expert players enjoyed physical touch with the novices

and they enjoyed when the novices would react positively. A large contributor to this theme was the segment of comments that had to do with creating friendships with students with autism. Gavin reported that “I made friends with Lance” and supplemented that he is kind of friends with Fran, but “I didn’t really hang out with her as much as Lance.” In addition, there were comments that suggested the students appreciated feeling accepted by the novices. Ryan expressed concern for his new friend when he said that he felt worried when Danny wasn’t present in IPGs one week: “I thought he was sick or something.” Along with the other participants, Ryan has continued interaction with the novices outside of IPGs. He said that he has “seen them outside a lot...I sometimes walk with them. And I say hi to them in the halls and stuff.” Blake followed Ryan’s comment with “In the hall in the morning...I go up to Andy or Danny and say hi and high-five and they give me high-fives.” Matt relayed that he says hi to them outside on recess and at their lockers.

**Wanting continued contact with novices.** The next abundant theme is that the experts want to continue to interact with the novices. Both Ryan and Matt made it known that they would like to invite their new friends with ASD to their birthday parties. Blake said he would like to “play with them again out on recess – that’s usually when I get to see them. And maybe I will go out of my way to see them and say hi.” If she is in the hallway and isn’t allowed to talk, Mary suggested that she may wave, give them thumbs up, or smile at her new friends with ASD. When asked how

he feels about play groups, Gavin said “I really enjoyed it and I’m upset that they’re over.” Kyle sympathized by saying, “I miss the play group...I miss seeing Lance and Fran.”

**Feeling novices are different from us.** The participants also commented on ways that the children with ASD are different from them. Some behaviors the experts viewed as different included crying, not acting interested in IPGs at times, and walking around. Highlighted by Brock, other ideas suggested that the novices sometimes have different ways of playing. Brock stated, “Danny, he was active but I think his favorite thing was just sitting in the blue tube just trying to fall asleep.”

**Feeling novices are similar to us.** The expert players also felt that they shared similarities with the novice players. The participants kept coming back to this idea, suggesting small ways they are the same: keeping their lockers clean, being active, and being fun. Mary stated, “They’re the same because they are still people.” Brock added by saying, “They’re both boys like us and they’re just regular people with autism. They’re just regular people.” Kyle, a third grader, agreed with Mary and Brock. In Kyle’s own words, “Well, they’re all humans. They aren’t like aliens from another galaxy. They’re the same as us, they just have autism.”

### **Comparison of the Focus Groups Results**

There are several things that can be learned about typical peers’ attitudes and acceptance of students with ASD through their reflections on Integrated Play Group involvement. By investigating the themes that

emerged from both focus groups, it is evident that the ideas that the participants have about children with ASD have changed throughout the course of the IPGs. Through exposure to the play groups, and to children with ASD, the expert players changed the features of their comments related to their feelings of novices being different from them. In the first focus group, general comments were made, often times without substantiation. In the second focus group, specific instances or actions were brought to light. On the other side, feelings of novices being similar to them were amplified from the first to the second session. The first session included statements about how the experts hypothesized they might be the same as the novices. In the second gathering, the participants shared ideas from an ongoing experience of playing with the students with ASD.

While the first focus group exposed limited and non-existent understanding and opportunity to engage with those with autism, the second focus group depicted a picture of a positive experience shared by the participants. The expert players had positive direct interactions with children with ASD and further relayed that they would like to continue contact with their new (self-proclaimed) friends.

An overall essence was found of having a positive experience during play groups with a desire for continued contact with their peers with ASD.

## **Chapter 5: Conclusion and Suggestions for Future Research**

Through a mixed methods research design, aspects from both quantitative and qualitative styles have been used to answer this study's research question. In addition, this exploration has supported the literature and has spurred new research ideas.

### **Looking Back at the Literature**

Countless OTs, like Mary Reilly (1974), have discussed the importance of focusing on a client's occupation to teach new or rehabilitating skills. The current study supports this idea by showing how the participants' lived experiences of IPGs and involvement with students with autism have been overwhelmingly positive. When Couch, Deitz, & Kanny (1998) explored play as an essential foundational occupation, they called for more research to be conducted to support their claim. The art and science of using play as a method of teaching typically developing peers about children with autism is one that can now be viewed as useful. This outlook has begun to be supported by the themes given throughout the focus groups in this study.

While working with the expert players, it became evident that they needed time to ask questions about the nature of autism and to learn about how they can effectively play with children with autism. The training sessions that were recommended by Wolfberg (2003) were a vital first step to the introduction to IPGs. After the training, they were able to apply what they had learned in the new play group environment.

When Wolfberg and Schuler (1993) wrote about physically maneuvering the environment to foster positive play and participation, their ideas assisted both the children with autism and their typically developing peers. The expert players needed the play focus that the IPGs provided. If they were left to come up with initial play schemes or to “fend for themselves” they would have had more frustrations with the process and inevitably less positive attitudes towards IPGs and their novice counterparts. Especially helpful was the tapered adult assistance that was available to them as they needed it. The fact that the participants were able to show initiation and carry out new ideas of their own may have led to a greater self-concept and overall conception of IPGs and their new friends with autism.

As discussed in Chapter Two, the study by Yang and her colleagues (2003) reported high reviews of IPGs by the parents and expert players. Although the three expert players reported that enjoyed IPGs and took pleasure in playing regularly with the novice players, no further information was given about the expert players’ experiences. The current study helps support what Yang and her collaborators found and gives additional information about the effect of IPGs on the expert players’ attitudes and acceptance of students with ASD. In the second focus group, Mary suggested that she now feels closer to the two novices in the play group, and she also feels closer to children with autism as a whole. In Mary’s words, play groups have “made me feel different and closer to kids with autism.

And it's made me have a really nice feeling every time I see them. Usually it's when I see someone that I know, but a little when I see someone I don't know."

### **Future Research Planning**

While the CATCH has been used in many studies (as discussed in Chapter Two), this is the first study to use it relating to children with autism. While it has several strengths, it is difficult to use it to disprove a null hypothesis with only six participants. Next time, it may be helpful to administer the CATCH in a different location. During this study, the students were in close proximity to one another and may have been able to look at their peer's answers. In addition, at times it seemed that the participants became confused by the wording of the CATCH – particularly those scored negatively. This, and rushing through the test, could have impacted how they answered and their overall scores.

In future research, it may be helpful to add an additional criterion when choosing expert players. If experts were chosen that are routinely at lunch and recess with the novice players, then there would be an opportunity for observation during those times. By observing the children in their natural environments, it would be easier to see if throughout the course of IPGs the participants changed their actions towards those with ASD. While the use of a standardized scale has its place, visually observing the children change (or maintain) their behaviors in their natural setting could be more powerful. In addition, it would provide information on a

smaller number of participants that is difficult to attain through standardized assessment. If future studies use the CATCH to reveal changes in acceptance, it may be prudent to use it with a larger number of participants and even with a control group that is not exposed to IPGs.

One aspect that could be changed about the focus group format is the use of having the participants draw pictures. In the future, it may be more beneficial to ask a different question for the drawing. This study asked, “What are some of the things that people with autism (or kids your age with autism) might do that are different than what you do?” A future study could suggest, “Draw a picture of how a child with autism might interact with you.” This could reveal the participants’ views as either initially positive or negative.

New research also has the potential to give more opportunity for the participants to ask questions in a comfortable environment throughout the play group process. There could be a relaxed lunch meeting once a month to discuss past play group scenarios and come up with ideas for how to handle future issues. It may be beneficial for the participants to become a support group for one another when learning how to deal with frustrating situations. This may increase their overall understanding of children with autism and scope of abilities when playing with them.

Since this study is the first to investigate the side of the expert players in IPGs, there are many avenues future researchers could take. Aside from learning about the participants’ attitudes and acceptance of their peers with

ASD, there are other aspects to be discovered. When typically developing children are mixed into a group with challenged peers, will the participants take on more roles than when in a group with other typically developing peers? Does this exposure and experience develop the participants' skill set at a faster speed or in a more extensive way? There are numerous questions that may be delved into – the tip of the iceberg has just begun to be chipped away.

### **Summary**

It is crucial to learn about children with autism and how we can teach them the skills they need to find success in life. Simultaneously, it is prudent to continue to examine how typically developing children view their peers with ASD. If typically developing children desire to interact with those with autism, as this study found, then it is wise to support their new desire and possible eventual occupation. While their influence on children with autism may be substantial, the influence that the children with ASD have on their typically developing peers could be just as powerful. As supported by the pre- and post-surveys (the CATCH) in this study, there is a trend seen of typically developing children increasing their acceptance of children with ASD. In addition, results from pre- and post-focus groups indicate that Integrated Play Groups have helped change the participants from having a limited view to experiencing desire to further interact with their peers with ASD, thus changing their attitudes in some capacity.

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## APPENDICES

## Appendix A: CATCH Introduction, Instructions, and Questionnaire

I'm Karen Toon from Eastern Michigan University. We are doing a survey to find out a little bit about boys and girls your age and about what you know and think about children with autism. I have a questionnaire that I'm going to ask you to fill out. When I give one to you, leave it face down until we are ready to begin.

This questionnaire is about what you know and think about children with autism. You may know someone who has autism. When someone has autism, they have difficulty communicating or interacting with others. Children with autism often have a hard time playing with others and using their imagination. Sometimes they do odd things like putting their fingers in their ears or mouth. They may stare at you or they may not look at you at all.

Someone with autism has it for their whole life, unlike other people who may have a cold or a broken leg that usually gets better after a short time.

(HAVE STUDENTS FILL IN GRADE AND DATE AT TOP.)

Please do not write in the boxes on the back of the first page. I will explain this form step-by-step.

(READ EACH QUESTION 1-4 AND HAVE THEM COMPLETE EACH. DO NOT COMPLETE 2B.)

At the bottom of this page, there are some examples of how to fill out this questionnaire. First read the statement to yourself and then decide how you feel about the statement. You have 5 choices to choose from (POINT TO). The first example says: (READ IT ALOUD). If you really hate talking to old people, then maybe you'd pick "Strongly disagree" because you do not agree with the statement at all; or maybe you just dislike talking to old people, so you might pick "Disagree"; or maybe you just don't really know how you feel about the statement so you might pick "can't decide"; or maybe you do enjoy talking to old people so you might pick "agree"; or maybe you REALLY do enjoy talking to old people, so you might pick "Strongly agree". Decide how you feel about the statement and then mark which one you choose – put an X through it or circle it.

(ASK THEM IF THERE ARE ANY QUESTIONS ABOUT HOW TO COMPLETE IT AND ASK THEM TO TRY THE NEXT EXAMPLE. REPEAT ABOVE STATEMENTS ABOUT EACH RESPONSE AS NECESSARY. READ THE INSTRUCTIONS AT THE BOTTOM OF THE PAGE.) Go ahead and do the next four pages.

## Questionnaire

Grade: \_\_\_\_\_

Date: \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_  
           Month   Day     Year

1. Do you have a disability? Yes: \_\_\_\_ No: \_\_\_\_

a) If yes, what is your disability?

\_\_\_\_\_

2. Do you have a friend who has autism? Yes: \_\_\_\_ No: \_\_\_\_

a) If yes, does he/she go to your school? Yes: \_\_\_\_ No: \_\_\_\_

b) What is his/her name?

\_\_\_\_\_

3. Does anyone in your family have autism? Yes: \_\_\_\_ No: \_\_\_\_

a) If yes, is it your:

Mother: \_\_\_\_   Father: \_\_\_\_   Brother/Sister: \_\_\_\_

Grandparents: \_\_\_\_   Aunt/Uncle: \_\_\_\_   Cousin: \_\_\_\_

### Examples of how to fill out the form:

1. I enjoy talking to old people.

STRONGLY DISAGREE   DISAGREE   CAN'T DECIDE   AGREE   STRONGLY AGREE

2. Old people have difficulty remembering things.

STRONGLY DISAGREE   DISAGREE   CAN'T DECIDE   AGREE   STRONGLY AGREE

-There are no right or wrong answers. We just want to know your ideas.

-Please do not read ahead.

-Think about each sentence carefully.

1. I wouldn't worry if a child with autism sat next to me in class.

STRONGLY DISAGREE    DISAGREE    CAN'T DECIDE    AGREE    STRONGLY AGREE

2. I would not introduce a child with autism to my friends.

STRONGLY DISAGREE    DISAGREE    CAN'T DECIDE    AGREE    STRONGLY AGREE

3. Children with autism can do lots of things for themselves.

STRONGLY DISAGREE    DISAGREE    CAN'T DECIDE    AGREE    STRONGLY AGREE

4. I wouldn't know what to say to a child with autism.

STRONGLY DISAGREE    DISAGREE    CAN'T DECIDE    AGREE    STRONGLY AGREE

5. Children with autism like to play.

STRONGLY DISAGREE    DISAGREE    CAN'T DECIDE    AGREE    STRONGLY AGREE

6. I feel sorry for children with autism.

STRONGLY DISAGREE    DISAGREE    CAN'T DECIDE    AGREE    STRONGLY AGREE

7. I would stick up for a child with autism who was being teased.

STRONGLY DISAGREE    DISAGREE    CAN'T DECIDE    AGREE    STRONGLY AGREE

8. Children with autism want lots of attention from adults.

STRONGLY DISAGREE    DISAGREE    CAN'T DECIDE    AGREE    STRONGLY AGREE

9. I would invite a child with autism to my birthday party.

STRONGLY DISAGREE    DISAGREE    CAN'T DECIDE    AGREE    STRONGLY AGREE

10. I would be afraid of a child with autism.

STRONGLY DISAGREE    DISAGREE    CAN'T DECIDE    AGREE    STRONGLY AGREE

11. I would talk to a child with autism that I didn't know.

STRONGLY DISAGREE    DISAGREE    CAN'T DECIDE    AGREE    STRONGLY AGREE

12. Children with autism don't like to make friends.

STRONGLY DISAGREE    DISAGREE    CAN'T DECIDE    AGREE    STRONGLY AGREE

13. I would like having a child with autism live next door to me.

STRONGLY DISAGREE    DISAGREE    CAN'T DECIDE    AGREE    STRONGLY AGREE

14. Children with autism feel sorry for themselves.

STRONGLY DISAGREE    DISAGREE    CAN'T DECIDE    AGREE    STRONGLY AGREE

15. I would be happy to have a child with autism for a special friend.

STRONGLY DISAGREE    DISAGREE    CAN'T DECIDE    AGREE    STRONGLY AGREE

16. I would try to stay away from a child with autism.

STRONGLY DISAGREE    DISAGREE    CAN'T DECIDE    AGREE    STRONGLY AGREE

17. Children with autism are as happy as I am.

STRONGLY DISAGREE    DISAGREE    CAN'T DECIDE    AGREE    STRONGLY AGREE

18. I would not like a friend with autism as much as my other friends.

STRONGLY DISAGREE    DISAGREE    CAN'T DECIDE    AGREE    STRONGLY AGREE

19. Children with autism know how to behave properly.

STRONGLY DISAGREE    DISAGREE    CAN'T DECIDE    AGREE    STRONGLY AGREE

20. In class I wouldn't sit next to a child with autism.

STRONGLY DISAGREE    DISAGREE    CAN'T DECIDE    AGREE    STRONGLY AGREE

21. I would be pleased if a child with autism invited me to his/her house.

STRONGLY DISAGREE    DISAGREE    CAN'T DECIDE    AGREE    STRONGLY AGREE

22. I try not to look at someone who has autism.

STRONGLY DISAGREE    DISAGREE    CAN'T DECIDE    AGREE    STRONGLY AGREE

23. I would feel good doing a school project with a child with autism.

STRONGLY DISAGREE    DISAGREE    CAN'T DECIDE    AGREE    STRONGLY AGREE

24. Children with autism don't have much fun.

STRONGLY DISAGREE    DISAGREE    CAN'T DECIDE    AGREE    STRONGLY AGREE

25. I would invite a child with autism to sleep over at my house.

STRONGLY DISAGREE    DISAGREE    CAN'T DECIDE    AGREE    STRONGLY AGREE

26. Being near someone who has autism scares me.

STRONGLY DISAGREE    DISAGREE    CAN'T DECIDE    AGREE    STRONGLY AGREE

27. Children with autism are interested in lots of things.

STRONGLY DISAGREE    DISAGREE    CAN'T DECIDE    AGREE    STRONGLY AGREE

28. I would be embarrassed if a child with autism invited me to his/her birthday party.

STRONGLY DISAGREE    DISAGREE    CAN'T DECIDE    AGREE    STRONGLY AGREE

29. I would tell my secrets to a child with autism.

STRONGLY DISAGREE    DISAGREE    CAN'T DECIDE    AGREE    STRONGLY AGREE

30. Children with autism are often sad.

STRONGLY DISAGREE    DISAGREE    CAN'T DECIDE    AGREE    STRONGLY AGREE

31. I would enjoy being with a child with autism.

STRONGLY DISAGREE    DISAGREE    CAN'T DECIDE    AGREE    STRONGLY AGREE

32. I would not go to a child with autism's house to play.

STRONGLY DISAGREE    DISAGREE    CAN'T DECIDE    AGREE    STRONGLY AGREE

33. Children with autism can make new friends.

STRONGLY DISAGREE    DISAGREE    CAN'T DECIDE    AGREE    STRONGLY AGREE

34. I feel upset when I see a child with autism.

STRONGLY DISAGREE    DISAGREE    CAN'T DECIDE    AGREE    STRONGLY AGREE

35. I would miss recess to keep a child with autism company.

STRONGLY DISAGREE    DISAGREE    CAN'T DECIDE    AGREE    STRONGLY AGREE

36. Children with autism need lots of help to do things.

STRONGLY DISAGREE    DISAGREE    CAN'T DECIDE    AGREE    STRONGLY AGREE

## Appendix B: Phase 2, Focus Group #1

P5

Not having power to do something  
 When it's hard for you  
 Inability to pay attention very long  
 Inability to walk  
 Not having power to do something  
 Inability to do something

P6

Inability to do everything we can  
 Inability to walk  
 Needing wheelchair  
 Not having enough power to throw  
 One disability is autism  
 Disability is not a sickness  
 Having a friend with ADHD  
 Inability to pay attention  
 Forgetting name of disability  
 Inability to walk

P7

Inability to walk  
 Inability to play games we play  
 Forgetting name of disability  
 Repeating words over & over  
 Unsure about his disability  
 Aunt has disability  
 Shows lack of ability  
 Doesn't do anything but sit  
 Unsure about name of disability  
 Inability to walk  
 Needing wheelchair or walker  
 Inability to play soccer  
 Inability to kick a ball  
 Inability to play games we play  
 Won't look directly at you when  
 they speak to you

P8

Making weird sounds  
 Not acting like we do  
 Not acting like we do  
 Inability to do something that we  
 do  
 Needing charts to help them  
 Unable to think of anything  
 Ignoring you

Not knowing how to act

Making weird sounds  
 Not liking sounds we make  
 Easily becoming frustrated  
 Getting upset  
 Crying  
 Crying or trying to hurt others  
 Usually crying

Sometimes crying and hurting  
 others

P9

Running away  
 Running down halls  
 Knocking on doors  
 Banging on doors  
 Crying  
 Ignoring you  
 Laying down  
 Pounding hands on ground  
 Laying on ground  
 Pounding on ground  
 Crying  
 Getting away from teacher  
 Running out the door  
 Knows person with autism  
 Saying short sentences  
 Not acknowledging us  
 Starting conversation about his  
 new backpack  
 Him not answering me  
 Needing me to ask question again  
 to answer  
 Not knowing person with autism  
 outside of IPG

P10

Has light brown hair  
 Sometimes not listening  
 Needing to watch us to know what  
 we're doing  
 Knowing person with autism  
 Not knowing characteristics of  
 person

Not knowing person with autism  
 outside of IPG  
 Not looking at us much  
 Not talking much  
 Not wanting to participate in  
 games we play  
 Not talking much  
 Having a favorite playground spot  
 P11 Walking away without parents  
 Not acknowledging parents  
 Needing to re-ask question  
 multiple times  
 P14  
 "Oh geez" in response to noises  
 P15 wanting to touch something  
 she shouldn't  
 Getting corrected  
 Not listening  
 Squeeking "Eeek!"  
 Touching something she shouldn't  
 Breaking something she touches  
 Being sad  
 Ignoring kid who talks to him  
 Witnessing kid with autism being  
 sad & ignoring others  
 Self in picture with "autism kid"  
 Jumping on trampoline  
 Being mad  
 Banging me on my head  
 Moving hands up and down  
 Someone with autism may like to  
 jump on trampoline  
 "Autistic kid" on swings  
 Not swinging like other kids  
 "Normal kid" swinging like other  
 kids  
 Kid with autism might like to  
 swing with someone  
 Has seen this happen  
 Living across from "autistic girl"  
 P16  
 May like swinging  
 May like going through play tunnel  
 Only seeing "an autistic kid" once  
 Standing on a bridge

Not playing on other play  
 equipment  
 Inability to say hi  
 Making a noise  
 Questioning parents who didn't  
 answer questions  
 Said he's "an autistic kid", but  
 didn't tell me his problem  
 P17  
 Hadn't played with a child with  
 autism before IPG  
 Making children with autism  
 happy by playing with them - fun  
 Hard to encourage  
 Not playing correctly  
 Hard to encourage to play  
 Making her happy  
 Making me feel awesome  
 Hadn't played with child with  
 autism before IPG  
 P18  
 Hadn't played with child with  
 autism before IPG  
 Feeling embarrassed  
 First time meeting someone with  
 autism  
 Feeling scared  
 Feeling scared he would be mad  
 Feeling scared he would bang on  
 me or hit me  
 Feeling scared of not knowing  
 what they would do  
 Once didn't hit me, still feeling  
 scared  
 Feeling happy after playing with  
 him  
 Feeling happy that he was in a  
 good mood  
 Not wanting to play  
 Playing after watching other kids  
 Knowing friend's sister with  
 autism  
 P19  
 Changing our play to include sister  
 Her being fragile  
 She was having fun

Not having experience before IPG  
Didn't think it looked fun at first  
Needing help/examples to play  
Playing differently than us  
Becoming tired  
Not participating  
Staying away  
Mostly did what we did  
Playing differently  
Making noises that we didn't  
Feeling tired – more than us

P20

Not talking much  
Not doing what we did

Making noises  
Kept making noises when we were playing  
Moving slower than us  
Playing differently  
Feeling tired  
Not going in right away like us  
Not thinking it was fun at first  
Not going into tunnel  
Not following directions  
Sat in circle on wrong side  
Not bouncing parachute much  
Not going in tunnel  
Going through tunnel  
Not touching parachute at all

## Appendix C: Phase 2, Focus Group #2

P4	Feeling worried that he may be sick
Him feeling my face	Scared or worried when he got on top of me
Picking stuff & dropping them on his head	P7
Enjoying him laughing	Having fun in IPGs
Enjoyed watching him hit them down	Wanting to do IPGs next year
Feeling cool	Feeling happy
Hands feeling scaly	Starting to make them communicate better
Playing with tube & yellow thing	Wanting to do IPGs again
Going all over my body	Really enjoying it
Enjoying almost everything	Feeling cool to be with someone with autism
Playing monsters	Cool seeing how they act
P5	Cool to play with them
Her giggling	Wanting to do IPGs every year
Being outside	Feeling IPGs are fun
Swinging	Fun teaching them to play
Talking together	Feeling good about IPGs
Having fun	P8
Making him crack up by falling	Interesting seeing how they play
Pushing him through tunnel	Interesting seeing how they act in their own way
Making him laugh by peeking at him	Wanting to do IPGs more
Playing in green tube with him	Thinking it is cool
Him touching us	Having more fun than recess
Not feeling scared	Enjoying IPGs
Feeling good	Feeling upset IPGs are over
Him crying	Making friends in IPGs
Trying to rock him & nothing helped	Making friends in IPGs
Needing help to get him to stop crying	Making friends in IPGs
Feeling uncomfortable about not being able to help him stop crying	Making friends in IPGs
P6	Making friends in IPGs
Feeling upset when he wouldn't play with me	Making 2 friends in IPGs
Him moving & walking away from us	Would have been fun to make friends with student from other IPG
Feeling upset he wouldn't play	Making 2 friends in IPGs
Him moving & walking away from us	Danny being fun
Feeling worried when he was gone	Making 1 good friend in IPGs
	Making 1 sorta good friend in IPGs

P9  
 Saying hi to her & she'll remember me  
 Making 1 friend in IPG  
 Making 1 sort of good friend in IPG  
 Making a friend in IPG  
 Hiding & him tapping & uncovering me  
 Liking when he didn't give up  
 Him giving up sometimes  
 P12  
 Kids being fun  
 At 1<sup>st</sup> acting like they didn't know us  
 Now not wanting to say goodbye  
 Not wanting IPGs to end  
 Not knowing it was our last IPG  
 Getting to know us  
 Being adventurous  
 Being nice to us  
 Liking when they are nice to us  
 Being interesting  
 Being fun  
 Walking around not doing much  
 Not acting interested in IPG  
 Walking away  
 Likes looking in mirror  
 Liking everything  
 Being active  
 Being active  
 Likes sitting in tube & trying to sleep  
 Likes walking around  
 Likes playing  
 P13  
 Being interested in IPGs  
 Not wanting to leave  
 Playing with her  
 Feeling different than in beginning of IPGs  
 Feeling closer to kids that have autism  
 Having nice feeling when I see them  
 Having a nice feeling when I see someone I know

Still having a nice feeling even if I don't know them  
 Not knowing what autism was before this, now having learned a lot about autism  
 Them knowing us better  
 Knowing them personally now  
 P14  
 Missing them  
 Missing Lance & Fran  
 Missing IPGs  
 Miss seeing them  
 Not feeling different  
 Knowing someone new  
 Knowing 2 people with autism  
 Making 2 more friends  
 Hoping I made a difference in her life  
 Hoping I taught her something  
 Her teaching me how a few autistic kids act  
 P15  
 Her teaching me it's really fun to be with someone with autism  
 Being a good friend to me  
 Seeing them in hall  
 Seeing them walking on sidewalk  
 Saying hi when I see them  
 Going up to them & saying hi  
 Me giving them high-fives  
 Them giving me high-fives back  
 Saying hi at recess  
 Saying hi to them  
 P16  
 Seeing them at lockers  
 Him keeping his locker neat  
 Seeing them next year  
 Playing with them on playground  
 Seeing them next year & this year  
 Playing with them next year & this year  
 Playing on playground with them again  
 Seeing them at my birthday party  
 Playing next year  
 Inviting them to my birthday party

Maybe needing help with them  
Seeing & playing with them at  
recess  
Going out of my way to see them &  
say hi  
Waving at them  
Giving them thumbs up  
Smiling at them  
Talking to them  
Saying hi to them  
Both being boys like us

Being just regular people with  
autism  
Being just regular people  
Being in 4<sup>th</sup> grade like us  
P17  
Being same as us because they are  
still people  
Being humans, not aliens  
Being same as us, they just have  
autism

## Appendix D: Phase 4, Focus Group #1

Lacking ability

Knowing person with autism

Not knowing person with autism or disability

Needing assistance

Acting different from us

Physically acting different from us

Acting similar to us

Feeling scared

Feeling happy

Feeling embarrassed

Hurting me or someone

Not having opportunity

Not understanding

Having some understanding

Sharing experience with child with autism

## Appendix E: Phase 4, Focus Group #2

Learning about kids with autism

Enjoying physical touch with novice

Enjoying novices positive reaction

Enjoying causing novices positive reaction

Enjoying direct interaction with novice

Feeling scared/worried

Wanting novice to interact more

Feeling frustrated I couldn't help more

Worried about novice

Experiencing enjoyment/happiness

Enjoying making friend in IPGs

Will be missing IPGs and IPG friends

Hoping for future interaction

Feeling novices are similar to experts

Feeling novices are different from experts

Interacting with novice outside of IPGs

Seeing them improve

Feeling accepted by novices

## Appendix F: Informed Consent Form

## INFORMED CONSENT

Project title: The Effect of an integrated play group program on social behavior in children with autism spectrum disorders and their peers

Investigator:

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**Purpose of the Study:** You are being asked to allow your child to participate in a research project. The purpose of this research study is to gain an understanding of the effect of an integrated play group on social skill development in children with autism spectrum disorders (ASD). In addition, we hope to gain a better understanding of how attitudes toward and acceptance of persons with disabilities are impacted among peers.

**Procedure:** Should you decide to allow your child to participate, he or she will be involved in a play program for children with autism and their peers. The program involves a small group of up to 5 children who will meet two times per week for approximately 30 minutes over a period of 3 to 6 months. Play sessions will be held primarily during lunch or recess periods to reduce the possibility of interfering with routine classroom instructional activities. We are following the guidelines established in a field manual designed by Pamela Wolfberg for Integrated Play Groups. The integrated play group model was designed to support children with ASD of varying ages and abilities in shared play experiences with their typical peers. The model uses natural settings, well-designed play spaces and specifically-selected play materials. Play sessions are organized with consistent schedules and routines that foster familiarity and predictability. Children on the autism spectrum are the *novice* players while peers are identified as the *expert* players, serving as role models and guides during the group process. The study is being conducted at Haisley Elementary School, Ann Arbor, Michigan and sponsored by Eastern Michigan University. The study has been approved by the Ann Arbor Public School division of Research Services. Staff at the school is aware and supportive of this project. Approximately 10 children will participate in this study.

Play sessions will be video recorded to evaluate the progression of each session and to note the engagement of the players. All videos and observation records will be secured in a locked cabinet in the investigator's research lab at Eastern Michigan University. Videos will be reviewed only by

the principal investigator or graduate students trained to evaluate play sessions according to a format developed for the integrated play group model. Videotapes will be destroyed when data collection and analysis for the study is completed, within a period of 3 years.

We are particularly interested in how this program may enhance the social skills of children with autism. We will observe the children with autism in the classroom, on the playground and in one other integrated setting (lunchroom, gym or mainstream classroom) where interactions between children are likely to occur. Social skills will be noted as behaviors like staying on task, making eye contact, initiating an interaction with a peer or a positive non-verbal or verbal form of communication with a peer. Only children with autism will be observed on 2-4 occasions each week for 5-15 minute periods. These observations will be performed by graduate students who have been trained in the recording procedures and who will sit as unobtrusively as possible along the side of the room where they can observe the behaviors of the novice players in a routine context. All graduate students have completed coursework in research methods and the ethical treatment of human subjects in research at Eastern Michigan University. Graduate research assistants are instructed in the specific confidentiality and data handling procedures for this investigation.

As part of the program, the peers (expert players) are provided with information about the nature of autism spectrum disorders and taught ways to assist children with the condition. Open-ended questions will be used at the initiation and termination of the program to understand the expert players' attitudes about disability and feelings about their experiences in the program. Interviews will be done in small groups and last 40-60 minutes. We will ask all parents and teachers of the participants to complete a questionnaire about their play styles and preferred activities. The questionnaire should take about 20 minutes to complete.

**Confidentiality:** Names of participants will not be reported in any findings. Pseudonyms will be used in research reports and presentations at professional meetings to maintain the confidentiality of the participants. The consent form which includes your name and any other identifying information will be stored separately from the results in the principal investigator's office in a locked cabinet. At no time will your name or the name of your child be associated with the results. If your child has an IEP and/or individual behavior plan in place for the year, we would like your permission to receive a copy of the IEP goals and the behavior plan from your child's teacher. We will not directly access any school records unless you give us permission to do so. All data gathered during the project will be kept in a locked cabinet in the investigator's locked research lab.

**Expected Risks:** Children may feel uncomfortable as the program begins. All efforts will be made to assist participants in the transition into the

program. Sometimes children with autism become upset and disruptive when they are frustrated. If this happens during the play sessions, there are several adults who will be able to help them calm down and keep them from harming themselves or nearby others. The play groups will include 4 adults working with 5 children who can immediately intervene with and support all of the children. In the event of any emergency, the policies of the Ann Arbor Public Schools and Haisley Elementary School will be utilized. Any concerns about a child's discomfort can be discussed with the School Social Worker, Gloria O'Neill at 734.994.1938, Ext. 20545.

**Expected Benefits:** We anticipate that there will be positive effects on the social skills of the children with autism and that opportunities to interact with their peers will increase as all students become more familiar and comfortable with their abilities. In addition, we expect that peers will become more familiar with persons with autism and will feel more comfortable in interacting with them in more spontaneous ways. Research has shown that there are many benefits to the children with autism who develop better social skills and to their peers who are more sensitive to individuals who have learning and performance differences. If information related to proven alternative treatments becomes available you will be notified as soon as possible. You may also find other programs of interest through the EMU Autism Collaborative Center website ([www.accemu.org](http://www.accemu.org)) or via email ([autismcenter@emich.edu](mailto:autismcenter@emich.edu)).

**Voluntary Participation:** Participation in this study is voluntary. If you and your child do decide to participate, either of you can change your mind at any time or withdraw from the study without negative consequences. You will receive a copy of this form for your own records.

**Use of Research Results:** No names or individually identifying information will be revealed in culminating reports. Results may be presented at research meetings and conferences, in scientific publications, or as part of a master's thesis by the principal investigator and her trained graduate students. You may request a copy of the results at the end of the study. If any significant changes are noted in your child's behavior as a result of participating in this study you will be notified immediately.

**Future Questions:** If you have any questions concerning your child's participation in this study now or in the future, you can contact the principal investigator, Gretchen Dahl Reeves, at 734.487.3236 or via e-mail ([greeves@emich.edu](mailto:greeves@emich.edu)). The School Social Worker, Gloria O'Neill can be contacted at 734.994.1938, Ext. 20545 should you have concerns about your child's comfort.

This research protocol and informed consent document has been reviewed and approved by the Eastern Michigan University Human Subjects

Review Committee for use from\_11-06-09\_ to \_11-06-10. If you have questions about the approval process, please contact Dr. George Liepa (734.487.0077), Chair of CHHS HSRC, [chhs\\_human-subjects@emich.edu](mailto:chhs_human-subjects@emich.edu).

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Consent to Participate: I have read or had read to me all of the above information about this research study, including the research procedures, possible risks, side effects, and the likelihood of any benefit to my child. The content and meaning of this information has been explained and I understand it. All my questions, at this time, have been answered. I hereby consent to allow my child to take part in the study.

PRINT NAME: \_\_\_\_\_

Signatures:

Parent/guardian signature \_\_\_\_\_ Date \_\_\_\_\_

Investigator signature \_\_\_\_\_ Date \_\_\_\_\_

Project title: The Effect of an integrated play group program on social behavior in children with autism spectrum disorders and their peers

Investigator: Gretchen Dahl Reeves, Ph.D., Associate Professor  
 Eastern Michigan University  
 School of Health Sciences, Program in Occupational Therapy  
 355 Marshall/Ypsilanti, MI 48197  
 (734) 487-3236 [greeves@emich.edu](mailto:greeves@emich.edu)

## Appendix G: Assent Form

## ASSENT FORM

Project title: The Effect of an integrated play group program on social behavior in children with autism spectrum disorders and their peers

You are being asked to join a program with some other children at your school. In this program, you will participate in a small group of about 5 students. The group will meet 2 times a week for about 30 minutes each time. When the group meets we are going to play some games together. We would like your help in getting some children with autism to participate with others and to learn how to make friends. We will teach you some ways to help the children with autism and ways to communicate with them. While you are playing, we are going to videotape the sessions so that we can look at them later and learn more about the program. You may be asked some questions about your understanding of disability and autism and about your experiences with the group.

Sometimes children with autism become upset and disruptive when they are frustrated. If this happens during the play sessions, there are several adults who will be able to help them calm down and keep them from hurting you. This is a research project. Your participation is completely voluntary and your name will be kept private. If you decide at any time that you do not want to take part in this program than you have a right to say so. You can stop participating at any time and no negative consequences will happen. This will not interrupt your school program or the other activities that you do at home or school. The play groups will meet during a lunch or recess period.

Your parents have given permission for you to attend this program. If you have any questions about this program, you can ask your parents or Ms. O'Neill, the School Social Worker, can meet with you to talk about any experiences that are not comfortable

THANK YOU!

I understand that I am volunteering to take part in this program. I know if I want to stop participating it is OK for me to say so.

Name (printed) \_\_\_\_\_  
Signature of Participant \_\_\_\_\_ Date \_\_\_\_\_

Signature of Investigator \_\_\_\_\_ Date \_\_\_\_\_  
Signature of Witness \_\_\_\_\_ Date \_\_\_\_\_

## Appendix H: Human Subjects Review Approval Letter

\*My study was written into Gretchen Reeves' research on "The Effect of Integrated Play Group Program on Social Behavior in Children."

**E**ASTERN MICHIGAN UNIVERSITY

*Education First*

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November 6, 2009

Gretchen Reeves  
 School of Health Sciences  
 Program in Occupational Therapy  
 355 Marshall

Dear Gretchen Reeves:

The Human Subjects Institutional Review Board (IRB) of Eastern Michigan University has granted approval to your proposal, "The Effect of Integrated Play Group Program on Social Behavior in Children."

After careful review of your completion application, the IRB determined that the rights and welfare of the individual subjects involved in this research are carefully guarded. Additionally, the methods used to obtain informed consent are appropriate, and the individuals participating in your study are not at risk.

You are reminded of your obligation to advise the IRB of any change in the protocol that might alter your research in any manner that differs from that upon which this approval is based. Approval of this project applies for one year from the date of this letter. If your data collection continues beyond the one-year period, you must apply for a renewal.

On behalf of the Human Subjects Committee, I wish you success in conducting your research.

Sincerely,

Deb de Laski-Smith, Ph.D.  
 Interim Dean  
 Graduate School  
 Administrative Co-Chair  
 University Human Subjects Review Committee

Note: If project continues beyond the length of **one** year, please submit a continuation request form by **11/6/10**.

Reference # 090907

