Shaving Cream and Cowboys: A Descriptive Study of Play Differences between Typically Developing and Developmentally Delayed Preschoolers

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Through play, children develop cognitively, socially, emotionally and physically. Preschoolers go on a journey of self-discovery during play activities, learning self-regulation and how to accurately represent themselves in the environment. This study explored the play behaviours of eight different children in two different schools. Four children were typically developing; the other four were developmentally delayed. The results indicated that despite developmental differences, the children were all able to play in similar fashions. Play can be used for all children and a label of a developmental delay should not limit the type of play in which the child is allowed to engage. If play is developmentally appropriate, then children should be able to successfully engage in the activity.

Introduction

Play is essential for all children, but how each child plays is unique to that child. Imagine two different classrooms – the first in a preschool with the majority of children typically developing and the second in a preschool with the majority of children having a developmental delay. In the first classroom there are centres all around the room. One girl chooses to play dress up; she has on a fedora (she calls it a cowboy hat) and plastic dress up shoes. She is galloping around the room saying over and over, "I'm a cowboy, I'm a cowboy!" In the second classroom, there are also centres, but the children are much more interested in playing with the shaving cream that is on the table. One boy is moving his arms in circles in the creamy substance, reaching across the table and talking to his

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classmates; he is totally engrossed in his play. Both children are having fun, learning, and exploring their worlds in their own unique ways, despite their developmental differences.

Play is an important process in which all children engage, regardless of intellectual ability. Through play, children develop cognitively, socially, emotionally and physically. All preschoolers, whether they are developmentally delayed or typically developing, engage in various forms of social interaction. Through social interaction, children form new ideas of self-awareness, social understanding, and emotional regulation, and these important interactions influence their developing social competence. As preschoolers develop, they grow in their ability to understand other people's intentions, emotions, desires and motives for behaviour. All of this growing knowledge gives preschoolers a better understanding of the world around them. Preschoolers also go on a journey of self-discovery during play activities, learning self-regulation and how to accurately represent themselves in the environment.

Relationships are crucial for the social development of preschoolers at any developmental level (Thompson, Goodvin & Meyer, 2006). Peer interaction, in particular, is essential for social development. Peer interactions lead to the development of friendship, which is also very important because the child is learning increasingly sophisticated social skills (Hartup, 2000; Erdley, Nangle, Newman & Carpenter, 2001). Younger children tend to play in more single-gender groups and play by age-based norms compared to older children, who may decide to challenge the status quo (Cincotta, 2002; Eardly et al, 2001). Social competence is described as the ability to, "(1) initiate or sustain positive interactions with peers and inhibit the use of negative behaviors, (2) form affiliative ties such as friendship and peer-group acceptance, (3) sustain positive peer relationships and roles, and (4) avoid debilitating peer relationships and roles…" (Ladd, 2005, p. 193). Social competence is central to successful peer interactions (Tanta, Deitz, White & Billingsley, 2005). Essentially, it is important for children to be successful in

their own lives while having a positive effect on others (Kemple, 2004).

Research has previously defined play as "behaviors that are creative, voluntary, flexible, and pleasurable, self-motivated, and concerned more with means than ends" (Berg, 1994; Goldhaber, 1994 in Wilburn, 2000, p.95). Play is important to the development of young children. It does not matter what type of play children engage in as long as they are constantly pushing the limits of their play skills. Imaginative or sociodramatic play is especially important because it can allow the child to act out situations in which he/she would not normally be allowed to engage. For example, during play, a child can take on the role of a mother and play house, whereas in real life this is not a realistic expectation of a child (Wilburn, 2000). When children play to learn, it takes away from the need to achieve a standard of perfection; play is whatever a child creates. Play helps to teach children social skills, motor skills, and problem solving. Play should be an integral part of a child's environment because of how important it is to the child's overall development (Wilburn, 2000).

Play is also a source of learning or a way that the child can process information to create learning. It is important that a child have access to both free play and guided play because both stimulate different kinds of learning and exploration (Sandberg & Pramling Samuelson, 2003). When a child plays, all systems – cognitive, social, emotional, and physical – are active and busy developing new skills, especially those used in social situations. Play is also part of language and cognition development (Holmes & Willoughby, 2005). Social pretend (or make-believe) play gives children the chance to develop skills that otherwise are hard to teach, like self-regulation and social referencing. Research has shown that the more children play the more their social and cognitive functioning improves (Gmitrová & Gmitrov, 2003).

The current research explored the difference in play behaviours between typically developing children and children with developmental delays. The definition of play for this study was any

child-initiated activity during a free choice period. Little research currently exists on how children with development delays play in peer groups. In the study, the play behaviours of eight different children in two different schools were explored. Four children were typically developing and four were developmentally delayed. Existing research suggests that children with developmental delays engage in more onlooker or solitary play when allowed to have free play (Cress, Arens & Zajieck, 2007). It is important to note the differences, if any, in play behaviours between children with and without developmental delays, so that teachers can use play more effectively to help all children make developmental gains.

Method

Setting

The study took place in two private pre-schools in a large metropolitan city. School A was founded in 1967 at a local church in order to meet the needs of the church and surrounding community. Originally, the school had an enrollment of 30 children, but within a few years, the school's enrollment doubled. At the time of writing, there were 325 children, infants through kindergarten, enrolled at the school. The majority of the children attending School A were typically developing. The curriculum placed an emphasis on learning through experiential discovery while fostering creativity. All members of the staff were thoroughly trained in areas of child development and many were certified teachers. The National Association for the Education of Young Children (NAEYC) has accredited School A. School A maintains accreditation as a ½-day preschool program with before and after school child care. The majority of the students attending School A came from white, middle to upper income families. Typically, both parents had at least an undergraduate degree and one parent stayed home to care for the child.

School B was located within close proximity to School A. School B was created in 2000 when parents in the community expressed great interest in having an early intervention special education program in

the county. At the time of writing, School B was the only early intervention program offered in the local area. School B was originally created as a Reverse Integration Special Education (RISE) school, meaning that most of the children who attend have special needs, namely Down's Syndrome, and typically developing children are integrated into the school culture. At the time of the research, there were several typically developing children enrolled in the program, but those children were placed in classrooms that were more developmentally appropriate. Children who are typically developing are generally more similar in developmental level to older children who are developmentally delayed. Teachers at School B all had a Master's degree in special education, and there were two teaching aids in each classroom, producing a student-to-teacher ratio of 3:1. School B was accredited by NAEYC as a full day program with an average yearly enrollment of 30 students. The curriculum at School B was research based, providing new learning experiences based on past ones. School B also functioned as a laboratory school for a major university. Children who attended School B came from homes similar to those of the children in School A.

Participants

For this study, observations were made of four typically developing children and four children with developmental delays. Two children were 2 years old, two children were 3 years old, two children were 4 years old, and two children were 5 years old, with one child in each age group attending school A and the other attending school B. Each participant was observed three times during free play; four minutes of free play was video recorded each time.

Measures

Children in the 2- and 3-year-old age group were assessed using the Assessment, Evaluation, and Programming System for Infants and Children (AEPS), Second Edition, Level I. Children in the 4- and 5-year-old age group were assessed using the AEPS, Second Edition, Level II. Both Levels I and II consisted of an observation checklist and a home report (Evaluation, 2002). The assessment measures

development in fine motor skills, gross motor skills, adaptive skills, social-communication skills, social skills and cognitive skills. This study looked at all areas of development, except for adaptive skills development.

Children in all age groups were assessed using the Social Competence in the Peer Group Play Scale (SCPGPS) (Ware, 1991; Ware, 1993). The SCPGPS is an observational measure that is designed to look at several aspects of play. First, the scale looks at what type of play the child is occupied with, second, pretend play is analyzed, and, finally, social interactions are observed (see Table 1 for descriptions). In the scale, play is defined as any behaviour that is child initiated.

Procedure

Prior to starting the research, the researcher contacted the school directors and obtained informed consent from the participants' guardians. The researcher made observations during a three-week period in late fall 2008. The researcher arrived at the school around 9:00am and went directly to each classroom where the children in the study were enrolled. The researcher quietly entered the classroom and set up a tripod to videotape the participants' play activities for four minutes. After the videotaping was complete, the researcher immediately left the room. The researcher would complete this process for all participants from each school, four participants per day. The researcher would watch the recordings so they could be scored using the SCPGPS. After each videotaped session, the researcher completed the AEPS assessment for the participants based on the direct observations or information received from the home report.

Results

Developmental Assessment

The researcher used the AEPS assessment to assess participants' developmental levels. Each was assessed in the following areas: fine motor, gross motor, cognitive, social-communication, and social.

Table 1. Categories for Social Competence - Peer Group Play Scale

Categories for SCPGPS	***Descriptions***
Not Occupied with Play	*Onlooking* (O) – child is watching a play activity or play area *Aimless* (A) – child is wandering around the room or remains in one location with no apparent focus on any given activity *Exploratory Wandering* (EW) – child is wandering around the room focusing attention on successive activities/areas
Occupied with Play	*Solitary* (S) – child is playing alone, no peers are nearby or engaged in similar activities *Parallel* (P) – child is playing near, but not with a peer, both are engaged in similar play activities *Interactive* (I) – child is engaged in reciprocal play behaviour with a peer
Pretend	*Definite Pretend* (DP) – play that involves the transformation of people and or objects into make-believe identities or actions. *Non-Pretend* (NP) – functional or constructive play, such as puzzles, pegboard, block build or sand play in which no pretend play is evident *Approximate Pretend* (AP) – any play episode that does not fit clearly into the DP or NP categories
Interactive behaviour	*Active Social* (AS) – behaviours such as recruit, join, offer, talk, turn-taking, smile and laughing *Instrumental Aggression* (IA) – aggressive behaviours which are either provoked or which are directed to a peer to obtain something the aggressor wants *Active Asocial* (AA) – behaviours such as rejecting, or objecting to an offer, aggressive behaviours which are not provoked *Passive Social* (PS) – behaviours such as imitate, follow or comply with direction *Passive Asocial* (PA) – child ignores any of the above behaviours directed toward him/her

The AEPS includes a section on adaptive skills, but this was excluded because it could not be assessed for all participants. All of the participants who attended School A scored within developmentally appropriate levels, while participants in School B rarely scored at developmentally appropriate levels.

Social Play

It is important to report that all participants engaged in active social behaviour (Figure 1). This means that the children were able to actively involve themselves in a variety of play behaviours and interactions with others. The children all interacted with their peers despite their developmental levels, intellectual delays or age. While the rate at which a participant actively engaged differed, it is important to remember that all children are different. Half of the children engaged in passive social behaviour. This means that those children were recruited into play by another peer. The passive social behaviour was seen more among the youngest children and the children with developmental delays.

Only one act of aggression was observed during the recorded play sessions, in the 2-year-old with a developmental delay. The act was unprovoked by the other child, and the aggressor stood to gain nothing from acting out. Therefore, the most logical explanation is simply the "normal" development of aggression as young children learn socialization skills and emotional expression. Since the child had limited language skills, one can assume that the aggression was an expression of his frustration or anger. According to Tremblay (2003) and Tremblay et al. (2004), physical aggression begins to appear during the second year, so it may be safe to assume the same developmental milestone for children with developmental delays.

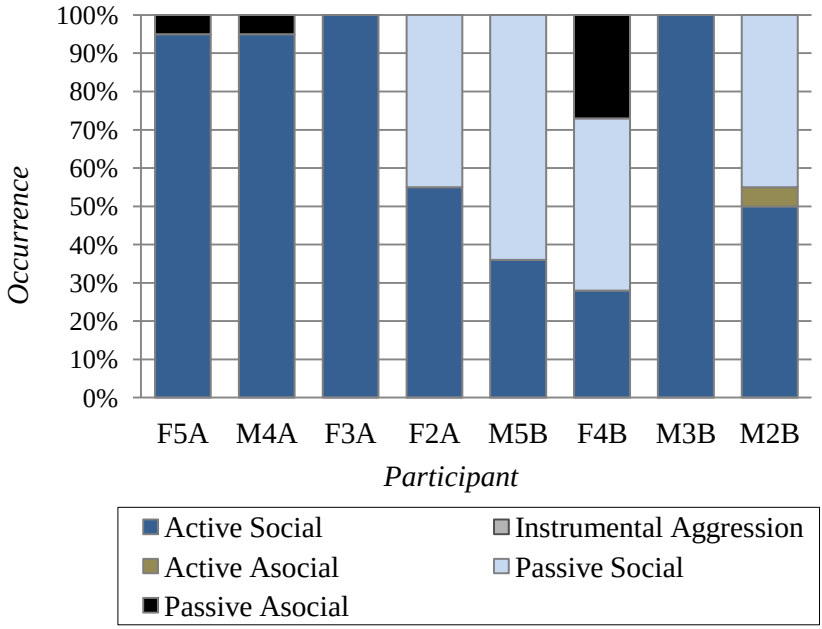

Figure 1. Social behaviour Results

Pretend Play

The observations of pretend play offered some interesting insights into how the children in the study play (see Figure 2). When the typically developing children played, it was easier to distinguish between definite pretend play and non-pretend play because these children could express what they were doing through language. The children with developmental delays of the same age had not yet established the ability to express their feelings and actions through speech. The lack of speech in the children with developmental delays explains the higher occurrence of approximate pretend play in that group. All children, with the exception of the typically developing 5-year-old, engaged in pretend play. Even the youngest child with developmental delays was able to use play representatively. For example, one child in the youngest age group was able to use his hand as a rake in silk leaves.

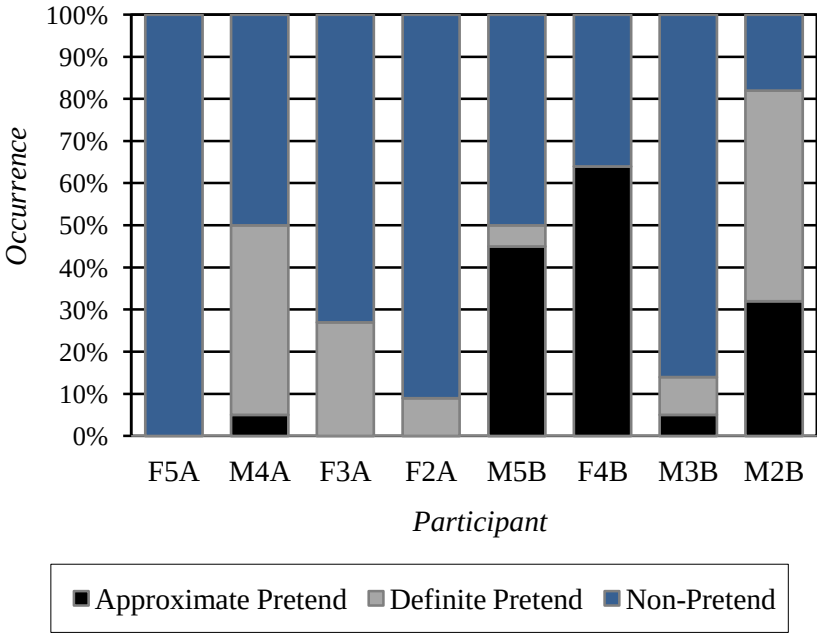

Figure 2. Pretend Play Results

Play behaviour

The two types of play that occurred at the highest rates in both groups of children were parallel play and interactive play. This finding suggests that all children were more interested in play with someone else or in sharing an activity with a peer, than playing by themselves (see Figure 3). In fact, all children were much more likely to be involved in some type of interactive play. The results in the play behaviour section seem to challenge traditional research which says that children with developmental delays prefer solitary play over other types. While solitary play did occur in most children, it normally did not have a rate of occurrence higher than 15%.

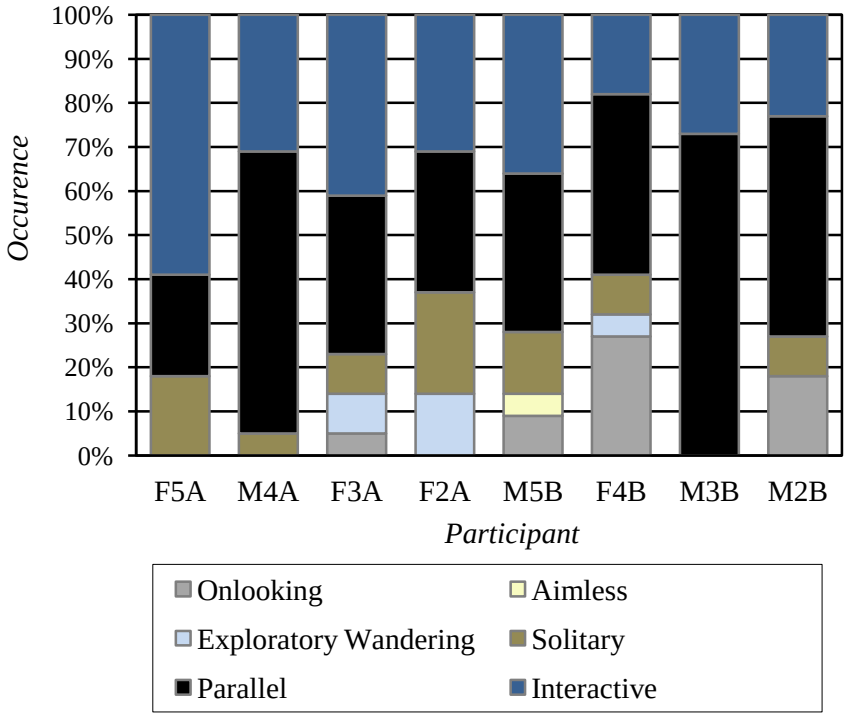

Figure 3. Play behaviour Results

Discussion

This research suggests that play is important for all children, and that a label of a developmental delay should not limit the type of play in which a child is allowed to engage. If play is developmentally appropriate, then all children should be able to successfully engage in the activity. This finding is significant because of the great importance of play on a child's overall development. Since play is such a large part of how children learn, explore and discover their worlds, this implies that when children engage in developmentally appropriate, yet playful tasks, they have an opportunity to make significant gains in their learning.

The findings suggest that children at any developmental level should be able to engage in any type of play. Children need to be in environments with developmentally appropriate play, meaning that the play materials and activities are suitable for the children's developmental level. If children are in such an environment then they should be able to engage in all levels of play no matter their developmental level. This idea is so important because young children primarily learn through play.

Limitations

This study was limited in that there was only one researcher to complete all the research. There was also a limited amount of time available to conduct the observations and analyze the enormous amount of data generated by the videotaped sessions. The small sample size of this study is a known limitation and in future replications of this study the sample size should be increase to allow for results that can be generalized to the general population. Future research in this area should include a larger participant pool and a more diverse school sample.

The research was also limited in that the schools that the participants attended might have been "too good." These schools strive to provide an exceptional learning environment for the students they serve, and have a strong philosophy of integrating developmentally appropriate play-based learning theory. In other words, the children might have been prepared at a young age to learn the way they play best. Another limitation was that the curriculum at the preschool that the children with developmental delays attended was based on an evidence-based approach. Therefore, the school was already highly motivated to provide the best possible environment for these children to learn. All of the lead teachers at the school had a relevant Master's degree. Most preschool teachers may not have such a high level of education or specialized training. Clearly, more observations would likely provide more insight.

Implications

The findings reported in this paper are important when it comes to the area of early intervention and special education. It has already been established that play is vital to children and their learning. The current research established that is it possible for children, both typically developing and developmentally delayed, to play at similar levels. It is necessary to conduct more studies that explore what developmental levels look like in developmentally delayed children, how play can help children with developmental delays, and what defines developmentally appropriate play. It is also important that this study be replicated so that the findings can be generalised and so that more can be learned about the current population's play behaviours. Therefore, whether a child prefers shaving cream or cowboys, is developmentally delayed or is typically developing, it is always important to encourage play as a source of learning.

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