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Making room for play: preschool center choices

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MAKING ROOM FOR PLAY: PRESCHOOL CENTER CHOICES

by

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Dedications

I dedicate my thesis work to my family, co-workers, classmates and friends who have supported me throughout the process. A special thank you to my mother, Lisa Morelos, who has encouraged me to continue to reach for the stars. Words of gratefulness to my father, Steven Morelos, who has been my biggest supporter since day. Thank you to Raymond Petit-Clair for always supporting me and my dreams.

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Abstract

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The purposes of the study was to examine the learning center choices of preschool students who received special education services and preschool students who did not receive special education services in order to identify the preference of teacher-led vs. child-led learning centers. Both children who receive special education services and children who do not receive services displayed a wide range of choosing child-led and teacher-led centers. It is hypothesized that there will be a difference between the child-led center vs. teacher-led center between children who receive special education services and children who do not. The hypothesis was refuted showing no difference between the child-led center vs. teacher-led center choices between children who receive special education services and children who do not with both groups choosing a child-led center over a teacher-led center. The study builds upon the evidence-based research of the positive effects of play and the importance of play for children of all ages and abilities. This study can assist in future research on recognizing the importance of play , identifying learning center choices, making sure a child is getting adequate as well as analyze the choices of specific learning centers for preschoolers receiving special education services versus preschool children who are not receiving special education services.

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Chapter 1

Introduction

The number of children in preschool has increased by more than 50% within the last ten years (IES, 2008). These preschoolers may have the opportunity to engage in creative learning in the classroom through play. Play is the work of childhood, and how young people learn and develop schema about the world (Piaget, 1962; Vygotsky, 1967). Vygotsky's theory is referred to as having sociocultural perspective in emphasizing the importance of society and culture in promoting cognitive development. Play not only benefits children cognitively, it also has benefits for a child physically for both children who are developing within certain milestones and those who may not be. Play allows children to stretch themselves cognitively and take on roles that they might not normally be able to do in present real life such as cooking, being a scientist, train conductor or architect. Play is particularly important in preschool development since play makes the child higher than his average age, higher than his usual everyday behavior; he is in play as if a head above himself (Vygotsky, 1933-1966).

Preschool teachers engage their classes in a curriculum that facilitates learning. They rely on certain activities and routines in their curriculum to encourage student choices and engagement. Creating an environment that inspires playful learning is essential in preschool classrooms. Preschool teachers generally recognize that their children's play items in their centers are the raw material of learning. The play items of the centers are strategically placed and chosen to promote the curriculums content goals. Learning centers are oversaw by a teacher but is generally child driven or "undirected" which allows the children to work in groups, to share, to negotiate, to resolve conflicts, and to

learn self-advocacy skills (Gupta, 2008). However, there may also be teacher-led learning centers that include Skill Building centers where the teacher uses tools such as flash cards, writing tools, and number cards to test each child's level of skill. Another teacher-led center can be an Art center where the child makes a project that aligns with the curriculum.

Statement of the Problem

Despite the positive benefits that play has to offer, many schools have reduced or eliminated recess time. The 21st century classroom has changed drastically with the reduction of free play time. These changes are implemented by some government agencies and school administrations to devaluate if not actually to ban children's play from the classroom (Zigler & Bishop-Josef, 2006; Zigler, Singer, & Bishop-Josef 2004).Such activity is viewed as ephemeral, pointless albeit enjoyable, and counterproductive to the major task of early education, the acquisition of literacy and numerical skills (Singer, J., & Singer, D. 2005/2006).

Various studies and research has been done on the benefits of play in school for example a school in Finland encourages play and recess time and incorporates recess into their schedule, and those children score high on reading tests (Alvarez, 2005).

Despite the benefits that are a product of play, free play has been reduced for some children. In a world where television and digital devices are commonplace in our living rooms, the least that we can do as educators for our students is continue to supply and work learning centers and time for play in our curriculums. Many of our children are being raised in an increasingly hurried and pressured style that may limit the protective benefits they would gain from child-driven play (Ginsburg, 2007). Many schools are

responding to the No Child Left Behind Act of 2011 by reducing the time committed to recess, the creative arts and even physical education in an effort to focus on reading and mathematics (Dillon, S., 2006). This may directly impact our children as they grow up and the various researchers have found that childhood and adolescent depression is on the rise through the college years (US Public Health Services, 2000). Professionals need to recognize the balance between academic and free play to ensure our children have equal opportunities. A study conducted by the LEGO Learning Institute in 2002 which surveys parents from France, Germany, Great Britain, Japan and the United States believed 94% that playing is time spent learning. We need to continue to expand our research and publish the benefits of play to counter the negative views that some individuals retain.

Significance of the Study

Much is known about the benefits of play, and how young children learn and develop scheme about the world, but little is known about the differences in play behaviors between children who receive special education services and children who do not receive special education services. Research studying children who do not receive special education services preschool learning center choices have been largely neglected in research and practice. The need to recognize and study preschool learning center choices of children who receive special education services is vital to making sure these children have every opportunity that children who do not receive special education services do. Much research has been done in modifications for the instruction of group activities in the classroom but little to no research has been done in the realm of modifications and tools available to preschool students who receive special education. More research and recognition needs to be given to the adaptations of preschool learning

centers for children who receive special education services. Studying preschool learning center choices of children who receive special education services can give us a good idea of what modifications and adaptations we should include in the centers as well as which centers we should consider adding for the benefit of both groups of students such as a Self-Care Center, Music and Movement Center, and Technology Centers.

It is recommended that the preschool classroom environment in early childhood education classrooms have interest centers that include materials designed to enhance skills across all developmental areas (Copple & Bredekamp, 2009; Harms et al., 2004). These interest centers should be scheduled into the curriculum and for children to choose during free play the center of their choice and activity for themselves (Bredekamp & Copple, 1997). Making sure the room is appropriate for the age group as well as making the schedule and curriculum appropriate is essential for the facilitation of learning in these interest centers.

Teachers and professionals must also consider the grade level expectations established by the state in which they are implementing the learning centers. Each child's objectives stated in their individualized education plan with a child with special needs must be me to ensure that every child meets the required objectives to graduate preschool and enter Kindergarten. Learning center choices can be modified and enhanced so that children with and without IEP's can enhance and work on specific skills outlined by their IEP or their teachers. Both typical and atypical developing children may spend certain amount of time in one learning center and not in the other. Increasing the amount of time that children spend in identified low preference interest centers may lead to skill development (Bailey & Wolery, 1992).

Definition of Terms

Play. Researchers and clinicians have a variety of definitions to describe play but we will adopt the definition proposed by Wilson for the purposes of this study who defines play as activities that are intrinsically motivated and engaged in for enjoyment. In the early childhood setting, play is facilitated through the use of child-selected activities in the classrooms as learning centers (Wilson, 2015).

Learning Center. Defined space where materials are organized in such a way that children learn without the teacher's constant presence and direction. They can be referred to as interest centers, learning stations, activity areas, free-choice areas, booths, and enrichment centers (Pattillo, & Vaughan, 1992).

Cognitive Development. Refers to the acquisition of knowledge in childhood such as processes of perception, remembering, classifying, understanding, reasoning, thinking, problem solving, conceptualizing, classifying and planning – in short, all those expressions of human intelligence we use to make sense of the world (Cognitive Development, 2006).

Child-led. Recognized as play, voluntary, exploratory and spontaneous (Smith, 2006). First came about in 1700s when Jean-Jacques Rosseau argues that the child is to be viewed as an active constructionist who engages in experimentation and exploration as he or she moves through biologically unfolding's stages of development which paved the way for programs being built on this premise which focus on informal child-directed learning practices (Rescorla, 1991). According to Hyson, children in a child-directed approach may engage in the following: children select and initiate their own activities

from a variety of learning areas prepared by the teacher which include dramatic play, blocks, science, math, games, puzzles, books, recordings, art and music. They use these activities such as block building and measuring ingredients to help learn concepts in math, science and social studies, children use a variety of media methods such as finger painting and clay in a way of their choosing (1991). The child-directed preschool believes that allowing children to choose the activities in which they will participate promotes enthusiasm for school, self-confidence, and creativity (Hirsh-Pasek, 1991).

Teacher-led. Universally recognized as pedagogy or intentional actions to bring about learning (Brooker, & Edwards, 2010). According to Hyson, students who engage in the teacher-directed approach may do the following: engage in separate periods that are set aside to learn material in specific content areas, children use workbooks, ditto sheets, or other abstract or two-dimensional learning materials, teachers expect children to respond correctly with a single correct answer, the sound of the environment is characterized by enforced quite (1991).

Ausubelian Approach. Many teachers may believe in either the student-led, or teacher-led approach to setting up their classrooms, but there is also a comibation of the two philosophies which is known as the Ausubelian Approach which combines the developmental views of Jean Piaget and the educational and developmental theories of Jerome Bruner (Fowell, and Lawton, 1992). This approach alternates and combines teacher-directed formal instruction with child-directed exploration and play.

According to Ausubel, developmental change involves a decreasing dependence on concrete materials when learning or solving problems. Ausubel states that providing learning materials and concepts in careful sequence sets a strong foundation for learning.

He also contends that the structure of learning activities and demands made on the child's processing of information must be geared to the young child's limited ability to understand subject matter concepts and immature skills for processing information (Ausubel, Novak, and Hanesian, 1978).

Chapter 2

Review of Literature

Theoretical Framework

Learning centers were a response to the societies changing views and changing times. Open classrooms originated in British public elementary schools after World War II and focused on students "learning by doing" (Cuban, 2004). The idea was that open classrooms would have a planned setting which including interest centers where students could learn at their own pace with the help of a teacher (Cuban, 2004). Teachers have thus far used the approach of open classrooms and utilized the idea of the learning centers in their curriculum. The concept of the open classroom must be developed for a particular locale, with a particular teacher, with a particular group of children, at a particular time (Cooperman, Fischle, & Hochstetter, 1975). The teacher must develop their own classroom to their own style and with openness. It is important for the teacher and children to be comfortable in the classroom both physically and emotionally and for the teacher to develop its own characteristics. For some teachers and individuals the open classroom may mean ten minutes of learning center of time or it may mean an hour of learning center time. All of these are entirely dependent upon the individuals in the classroom one common goal should be met is that the open concept classroom should include an open attitude, learning centers, freedom to learn, freedom of choice, responsible action, cooperation among those involved in the learning process, variety of materials, and a climate that allows and encourages spontaneity and creativity (Cooper et al., 1975).

Conceptual Framework

John Dewey. Philosopher of progressive education in the early 1900s, emphasized "learning by doing". Described an educational curriculum that was active, based on the child's experience and interests, initiated by the child, and integrated into meaningful activities. Dewey believed that play was a subconscious activity that helps a child develop individually and is a precursor and necessary stepping stone for preparing the children to be healthy working adults.

Maria Montessori. Dr. Maria Montessori envisioned a radically different approach to education that correlated to the modern research in psychology that suggests the Montessori system is much more suited to how children learn and develop than the traditional system (Lillard, 2005). Montessori furnished the children with toys and educational games, with the explicit intention of stimulating and enhancing their development (Ariel, 2002). The preschool classroom is generally made up using Montessori classroom ideals such as large, open-feeling space, with low shelves, different sizes of tables that comfortable seat one to four children and chairs that are appropriately sized for the children in the classroom (Lillard, 2005). Learning centers are a direct reflection of the Montessori portrait in the sense that the traditional Montessori classroom is arranged into areas and divided by shelving with each area having materials for working on a particular subject area such as math or art.

Jean Piaget. Piaget introduced a developmental epistemology that focused on the growth of intelligence. Piaget's cognitive development theory was based on the

influential ideas that the growth of intelligence is influenced by the physical environment, the social environment, maturation and equilibrium. Piaget believed that children are active and motivated listeners. When they are given a new toy to play with or a new physical environment to engage in, the child will seek out information on the new stimuli and engage with the new toy or new environment. The child will also construct knowledge from their experiences by working in new environments and with new objects. The child will construct their knowledge by interacting with them, observing them, etc. Interaction with one's physical environment is essential for cognitive development.

Piaget's three stages of play focus on the biological maturity as a condition for learning. The stage of function that is during the preschool years is Piaget's Preoperational Stage which consists of children with the biological age stages of function at the elementary school level are Symbolic play which coincides with preoperational stage and comprises of children age of two to seven years old. Preoperational Stage play is normally seen in preschool learning centers where children engage in make believe and fantasy role play. At this stage, a child is acquiring the skills of language in which symbols are used to mentally represent objects. This is also the stage of magical thinking. This period of play is essential to cognitive development since internally the child is improving understanding and knowledge but externally the child is not able to communicate this information so play is vital for the child to be able to communicate this awareness to others (Ray, Armstrong, Warren, & Balkin, 2005).

Piaget believed in the same foundations of Montessori schools such as the notion of children as active listeners (Elkind, 1967). The Montessori schools allow the child to

learn through hands on activities and actions upon their own environment. As children interact with their environment and new objects, they learn and develop new ideas. The Montessori schools worked along the importance of Piaget's theory of Cognitive Development.

Both Piaget and Dr. Montessori were constructivists. Constructivism is a theory about knowledge and learning. A constructivist view of learning suggests an approach to teaching that gives learners the opportunity for concrete, contextually meaningful experience through which they can search for patters; raise questions; and model, interpret and defend their strategies and idea (Fosnot, 2005). To constructivist, learning is development.

Lev Vygotsky. In contrast to the views of Dr. Montessori and Piaget who viewed development as a universally shared process independent of the particular historic and cultural environment, Vygotsky emphasis was on culture and social interaction (Connery, John-Steiner, & Marjoanovic-Shane (2010). Vygotsky noted that "play is….the leading source of development in preschool years (1933/1976).

Room Layout

Play is facilitated by learning centers which are strategically placed and configured to provide various types of activities that may change based on curriculum or time of year. The way you organize your classroom often affects the extent to which the children will become absorbed in the learning center activities (Maxim, 1997). The integration of learning centers must coincide with the developmental ages of children. One of the major indicators of success of learning centers is the arrangement of the classroom. Classroom

organization physically reflects teaching style as well as the effectiveness of the curriculum. To increase independent and individualization, learning stations are to be set up peripheral of the room that allows students to get back to their desk when necessary. The placement of learning centers on the floor plan should be utilized to the teachers favor so the teacher can observe and circulate if a trouble arises. The wide range of experiences should also coincide with the wide array of learning centers that are offered and placed in the classroom. The centers should be clearly defined in space and function and should have ample room for children to play move and work. The room should be divided into active and passive areas and allow traffic to flow through effortlessly without disturbing others. Materials and supplies should be labeled and provided and accessible to all students.

Schedule Importance

Daily and weekly schedules are important in managing the classroom and particularly learning centers. Preschoolers may rely on visual supports such as picture cues or activity schedules which may help eliminate the need for the teacher to provide assistance during normal schedules. It may also facilitate a sense of independent in the individual. Routines and schedules organize student and teacher behavior and provide children with consistency, confidence, security, trust, and a sense of safety because the routine allows them to identify patterns that help them predict what is going to happen next (Salmon, 2010). Not being able to follow a routine or not having a routine in play can lead to behavior issues in the classroom. Research has shown that visual activity schedules are beneficial for assisting students in following routines and transitioning between activities

(Banda, Grimmett, & Hart, 2009). These activities compass the activities in the learning center that should be timed and set up to transition smoothly.

Play Benefits

Play is an intrinsically motivated experience for children. Play comes naturally to 3-5 year olds and is a thoroughly enjoyable activity (Perry, 1998). Play is important for building social competence and confidence in dealing with peers, a life skill that is essential for functioning in school (Howes, 1992; Howes & Matheson, 1992, Rave, 2002; Singer & Singer, 2005). When play is happening in early childhood, it is happening at peak time for fundamental cognitive development. Throughout the process of play, children are gaining various benefits without realizing they are immersing themselves in a healthy display of concentration which is categorized by Goleman, Kaufman, and Ray (1992) as flow.

Social-emotional benefits. Preschool children are living in an environment full of socializing. They absorb the language they hear, the rules they are learning, the customs and practices of the society we live in and how to communicate with others. They are learning to play with others, take turns, good sportsman ship and according to Scarlett (2015), acquiring these social skills are much more important than learning academic skills. These social skills are prerequisites to academic learning and instruction. These prerequisite skills are utilized in learning centers in the preschool classroom in various ways. Preschooler emotional development is complex. The child is learning to understand the difference in their emotions.

Cognitive Benefits. Play has a direct effect on the brain and changes the connections of the neurons of the front end of your brain creating new neural pathways every time a

child is engaged in a different form of play, with different materials, or with different classmates. These connections of the neurons are located in the prefrontal cortex which contains the brain's executive control center which regulated emotions, makes plans, and problem solve. Lifter and Bloom (1989) demonstrated that play and cognition appear systematically in parallel to one another, and has been linked to the development of cognitive skills such as self-regulation, meta-cognition, problem-solving skills, etc. (Whitebread, Coltman, Jameson, & Lander, 2009).

Motor Benefits. Play is an important topic in occupational therapy. Occupational therapists often use games to result in physical and mental satisfaction for the student. Both gross and fine motor skills are utilized in learning centers through play. Study conducted by Byers & Walker (1995) found that synaptogenesis in the cerebellum suggests that play facilitates motor training and the development of the musculoskeletal system by modulating plasticity in local neural connectivity. The child will strengthen the gross motor skills or large movement such as walking to each learning center but will also be working on their fine motor skills as they manipulate objects and use different tools in different learning centers such as scissors and crayons. Brunner stated that play is an opportunity to create new motor skills, in particular hand skills, which are necessary for tool use (Dadkhah, 2004).

Language Benefits. Learning centers are a place where children learn to interact with others, start conversations and build their vocabulary aiding in their language development. There is considerable evidence supporting a relationship between play and language I normally developing children (e.g. McCune-Nicolich 1981, Corrigan 1982, Shore, O'Connel and Bates 1984, McCune 1995) and in children with a variety of

disabilities (e.g. Mundy et al. 1987, Beeghly, et al .199). The theory of embodied cognition explains the importance of cognition emerging as a product of the interaction between an [individual] and its environment as a result of sensorimotor activity. These motor abilities and exploration create opportunities for learning (Hellendoom et al., 2014). A longitudinal study of four Japanese children conducted by Ogura (1991) found that there were developmental correspondences between the onset of six language land markers, the emergence of first words, naming words, vocabulary spurts, word-chains, nonproductive two-word utterances, productive two-word utterances and the onset of subcategories of play. Young children who are playing with objects learn to talk about the objects that they are playing with. Vocabulary is most sensitive to variations in experience, to travel, and schooling (Tripp). By using learning centers we are giving our children that vocabulary experience they can use to set phrases and build their own mental lexicon.

Categories of Play

Functional/object. The polar of unconventional where a child plays with objects and toys that may be atypical, functional play involves the "correct" form of play or using the objects in a way they are intended to be used. According to Laplante, Zelazo, Brunet, and King (2007) functional play involves the appropriate adult-defined usage of toys such as placing a ball in a baseball glove or dressing a doll, or stirring a tea cup.

Make-believe. This type of play is also known as imaginary, symbolic, or pretend play. Children who engage in this form of play included playing with dolls, playing dress-up, pretending to be a police man, or pretending to work in a kitchen. A definition of Make-Believe play is a kind of mental activity whose outward manifestations are

verbal or nonverbal or both. The mental activity includes the following mental operations performed simultaneously: evoking some mental images, animating these images, verbalizing the mental operation of animating, or identifying some perceptible entity in the immediate play environment with it. (Ariel, 2002) There has been little resent in the importance of pretend play for children with disabilities but successes have been reported in the assessment and instruction of pretend play in this population (DiCarlo & Reid, 2004). According to _ the development of make-believe play has been found to be positively related to the development of language skills, comprehension of texts and pictures and imagery abilities. Children whose make-believe play was found to be higher on a developmental scale also had a better ability to organize their thoughts and actions, express themselves clearly, exhibited a more advance capacity for self-reflection and insight and a keener sense or reality, clearer, more salient and more positive self-concept, more capable of controlling themselves and delaying gratification urges, stronger tendency toward empathy and pro-social attitude, seemed happier and were founder high in social skills in general and in conflict resolution skills in particular (Ariel, 2002).

Play is universally accepted but not universally implemented. Some cultures, societies, or groups of people may not have the means or be aware of the evidence based research that make-believe play has on an individual. Despite the countless positive attributions that make-believe play has on a child, there are cultures in which children do not play make-believe games at all such as Feitelson (1959) observed no instances of make believe play in Israeli children of the Kurdish Jewish community. Ashton (1952) claims that South African Basuto children's play is totally unimaginative.

Constructive. Constructive play is when a child uses manipulatives in their environment to create things. Constructive play is organized, goal-oriented play in which children use play materials to create or build something (Johnson, Christie, & Wardle 2005). It allows the child to use materials such as blocks and art to learn basic knowledge of these objects but also use their imagination. Since constructive play involves a child utilizing tools to create something that will last after the child builds or creates it, open-ended materials are frequently used. Common materials used in constructive play include Lego's, dough, Lincoln Logs, DUPLO, Tinker toys, art materials.. Montessori and Friedrich Froebel known as the Father of Kindergarten emphasize block building. These materials have a positive relation to spatial ability. According to Ostermeijer Boonen, & Jolles (2014), preschool children that are more interested in block play and reproducing complex block models perform better on spatial ability tasks. Children are building knowledge through questioning and information they gather as they engage in constructive play.

Universal Learning and Play in Special Populations

Each of our children learns differently. However, all of them have some inclination and interest to play, be creative, and also develop their physical, social, emotional, cognitive, creative and cultural and linguistic development and experiences. Matching the children's age and appropriateness learning center should fit the content in the center and incorporate various styles of children's learning. The universal learning center usually involves a dramatic play area where the child can engage in puppets, dressing up.

An art station where art projects can be made using paint, crayons and other tools. A discovery or science area can be utilized to coincide with curriculum.

These universal learning centers tap into the brain signaling systems including the neurotransmitter norepinephrine. Epinephrine is released into the body as a initial component of stress-related signaling and mobilizes our energies for the fight, flight, fright of fornication (Wang, & Aamodt, 2012). Norepinephrine facilitates learning mechanisms at synapses and can improve brain plasticity (Wang, & Aamodt, 2012).

Inclusion

Children in inclusion classrooms benefit greatly from learning centers. One of the frequently studied areas of play in inclusion classrooms are social skill development. Treatment and Education of Autistic and related Communication Handicapped Children (TEACCH) believed on the recognizable feature of structured teacher. Structured teaching includes the organization of the physical environment, development of schedules and work systems, and the use of visual materials (Mesibov, & Shea, 2009). Evidence based practices of the TEACCH structure were studied by Rutter and Bartak (1973) who studied structure of various educational programs and found that the children in the structured program demonstrated significant more on-task behavior. The structure of schedules and setting the learning center explorations for the same time each day is helpful with children with autism and other disabilities.

Under the TEACCH ideal, physical structure is also vital this included using elements such as furniture arrangement that show's a student which activities occur in specific areas (Mesiboy, & Shea, 2009). This type of physical structure organization promotes

on-task behavior. Sheratt and Peter (2001) advocate a play-drama intervention geared toward those on the spectrum to a approach to enable and motivate the hard-to-reach children to participate meaningfully in a social world and believe that playful activities with strengthen the aspects of the brain functioning necessary for more flexible thinking, which is has benefits in communication skills. According to Hanbury (2005), engaging in a developmental approach to the play-drama intervention will increase a child with autism's language skills, improve their social understanding, and increase ability to cope with change, increase spontaneity and creativity as well as reduce obsessive and repetitive behaviors. Play for children with disabilities in a natural context fosters positive social interactions which are embedded with learning opportunities. Barton (2010) found that play with objects may increase learning and engagement in education settings which can be useful when designing interventions that targets object play for children with disabilities.

Chapter 3

Methods

Participants

The study was conducted in a preschool room in a public elementary school in Southern New Jersey. Preschool student participants were granted permission to take part of the research via their parent and/or guardian. All participants were enrolled in the preschool program through a lottery. The participants in the study were three, four or five years old. The A.M. class consisted of six students, four of them were three years old and two of them were four years old at the beginning of the study. Five of the six A.M. students received special education services through the school. The P.M. class consisted of nine students. Three of which were four years old and six of which were five years old at the beginning of the study. Two of the nine children in the P.M. class receive special education services.

Environment

The preschool classroom learning centers were set up on the peripheral of the room and were each clearly distinctly separated by low lying cabinets that houses many of the materials. The learning center choices that were set up by the head teacher remained the same for the AM class as well as the PM class. They also remained on schedule with each learning center lasting 15 minutes. The AM class started their learning centers after they finished morning circle as well as their snack and since the PM class had snack before they came to preschool they would go into their centers at the same time everyday right after their morning circle time. The number of learning centers was not held constant throughout the data collection and was based on the discretion of the teacher.

The teacher would briefly go over and introduce each learning center and what they had to offer. These centers were also listed centrally on the clip board where the card on the board matched the label on the learning center. The child would have to find their clip on the learning center choice board and wait until a teacher rang the bell and set the timer for the first learning center to begin. When the bell rang, the child would have to clip their clothes pin on the learning center label of the center they choose. No more than four friends were allowed in a learning center at one time, and the children were directed not to pick the same learning center more than once.

During the first day of data collection, the first learning center choices consisted of Imagination Station which is play table with compartments under the table that stored train tracks, train crossing signs, miniature trees and houses, cars and trains that the children can play with on the top of the table which had scene's such as a community or town that could be changed out. The second learning center offered was titled Building where the child can utilize a wide variety of tinker toys to build things such as planes that came apart and Legos. Building also had other element such as animals, a school bus to put people in and a doll house as well as a doll house that was made into a fire house. Home Living was another option which houses a sink area with a stove, telephone, menu's, fridge, mirror, table and chairs, food cart, snack cart and plastic toys as well as household food boxes that the child could play with. Imagination Station, Building, and Home Living are all imaginative centers run by the student. Playdough was also open on this day and was child directed. The third learning center open on the first date of collection was the Art Center which was teacher led. The teacher introduced the Dr. Seuss themed craft of using paint on a fish shaped sponge to paint fish in the bowl after

the Dr. Seuss book, One Fish, Two Fish, Red Fish, Blue Fish. The fifth center open on this particular day was also teacher led and was Skill Building which consisted of an image of two fish bowls that had numbers under them and the child was directed to put the correct amount of fish in each bowl.

The second date of data collection consisted of the student led centers of Building, Home Living, Imagination Station and the teacher led centers of Art and Skill Building. The tools and materials in Building, Home Living and Imagination Center stayed the same but changed for Art and Skill Building. Art Center on this day was coloring and making their own Cat in The Hat, Hat. Skill Building on this day was the use of shape and number Dr. Seuss flash cards.

Data collection on the third day consisted of the student led centers of Imagination Station, Home Living, Building, Playdough and the teacher led Art Center and Skill building center. The Art Center for the day consisted of working at an easel painting a picture of their teeth white which went along with the schools theme of the week. The Skill Building center for this week was recognizing their numbers as well as writing their numbers on a dry erase board with guidance.

Fourth day of data collection consisted of the student led Imagination Station, Home Living, Building and the teacher led centers of Art Center and Skill Building. Students in the Art Center were able to work with the teacher and use scissors, glue and crayons to make a progressive book about growing and loosing teeth. Skill Building was a continuation of recognizing and writing their numbers.

The fifth date of data collection consisted of the student led learning centers of Imagination Station, Home Living, and Playdough and the teacher led centers consisted

of Skill Building and Art Center. Skill Building was flash cards of a healthy food choice (carrot, beans, squash, etc.) of different quantities with different numbers on the bottom with one of them matching the quantity of the health food choice pictured above. The child was directed by the teacher to count the healthy food and use clothes pin to pin the number that coincided with the number they had counted. Art Center was teacher directed which consisted of printed out images of healthy food choices that were clothes pinned to a string in the child's reach so they could pick their healthy food choices and put them on their paper that was shaped as a shopping cart.

Data collection on the sixth day consisted of the following student led learning centers; Imagination Station, Building, and Home Living. The teacher led centers were Skill Building and Puzzle. The Puzzle was titled Healthy Eating Puzzle and the Skill Building center was called Healthy Foods where the children would have to identify the foods they picked and made sure they were healthy before they chose them to put on their dinner plate.

The final day of data collection had Science Center, Building, Home Living, and Imagination Station as the student led centers and Skill Building and Pegs as the teacher led centers. The Skill Center consisted of students recognizing numbers based on their cognitive abilities. Peg Center consisted of a foam puzzle that had a coinciding written number and number of peg slots. The child would have to match the number of peg slots with the written number and put those two together and also input pegs into the missing peg slots.

Materials

Rowan mandated Parental/Guardian consent forms were checked for corrections before being signed by the preschool parents/guardian. A self-made data collection sheet was used by the researcher to record each A.M. and P.M. students learning center choices using pen and paper before being transcribed onto the computer.

Procedure

Written consent was granted for all six A.M. preschool participants and for all nine P.M. preschool participants via the mandated Rowan Parental/Guardian Consent form that was sent home with each child in their take home folders at the end of the school day. The forms were distributed by the researcher and were collected with signatures within a week of sending the consent form home. Signed consent forms were collected and stored by the researcher. A self-made data collection sheet was used to record learning center choices. See appendix. Data was collected every Wednesday and Friday's for both the AM and PM class.

The A.M. preschool learning center time was held for forty five minutes from 10:00 and lasted until 10:45 and each child had a chance to get to each of the learning centers. The learning center set-ups were the same for both A.M. and P.M. The P.M. learning centers lasted 45 minutes and were held from 1:00 until 1:45. The learning centers utilized in day one consisted of six. Four of them were considered student led and 2 of them were considered teacher led. The second day consisted of 3 centers that were considered student led and 2 centers considered teacher led. Of the third day learning centers, 4 of them were student led and 2 of them were teacher led. Fourth day learning centers consisted of 3 student led centers and 2 teacher led learning centers. Of the

learning centers in the fifth day of learning centers, 3 of them were student led and 2 of them were teacher led. Learning centers during the sixth day of data collection consisted of 3 student led centers and 2 teacher led centers. The final day of data collection consisted of four student led centers and two teacher led centers.

For the purposes of this study, the analysis focused on the two independent groups of children who receive special education services and children who do not receive special education services. Each group was coded into SPSS as being either 1 for special education or 2 for regular education. The sample consisted of 15 students, 7 of them receiving special education services, coded as 1 and 8 of them not receiving special education services, coded as 2. The means were taken for each student's teacher-led and student-led center choice by taking the number of times the child chose each center by the number of opportunities they had to choose a center.

Chapter 4

Results

The hypothesis that children who receive special education services will differ in their learning center choices compared to students who do not receive special education services was not supported. There was no significant difference in the scores for children receiving special education services student led choice (M=.265, SD=.130) and children who do not receive special education services student led choice (M=.246, SD=.094); t(14)=.350, p=.731. There was no significant difference in the scores for children receiving special education services teacher led choice (M=.761, SD=.115) and children who do not receive special education services teacher led choice (M=.753, SD=.094); t(14)=.154, p=.880. These results suggest that the variable of receiving special education services does not have an effect on which learning center is chosen when given the choices of teacher-led or student-led, as shown by Figure 1.

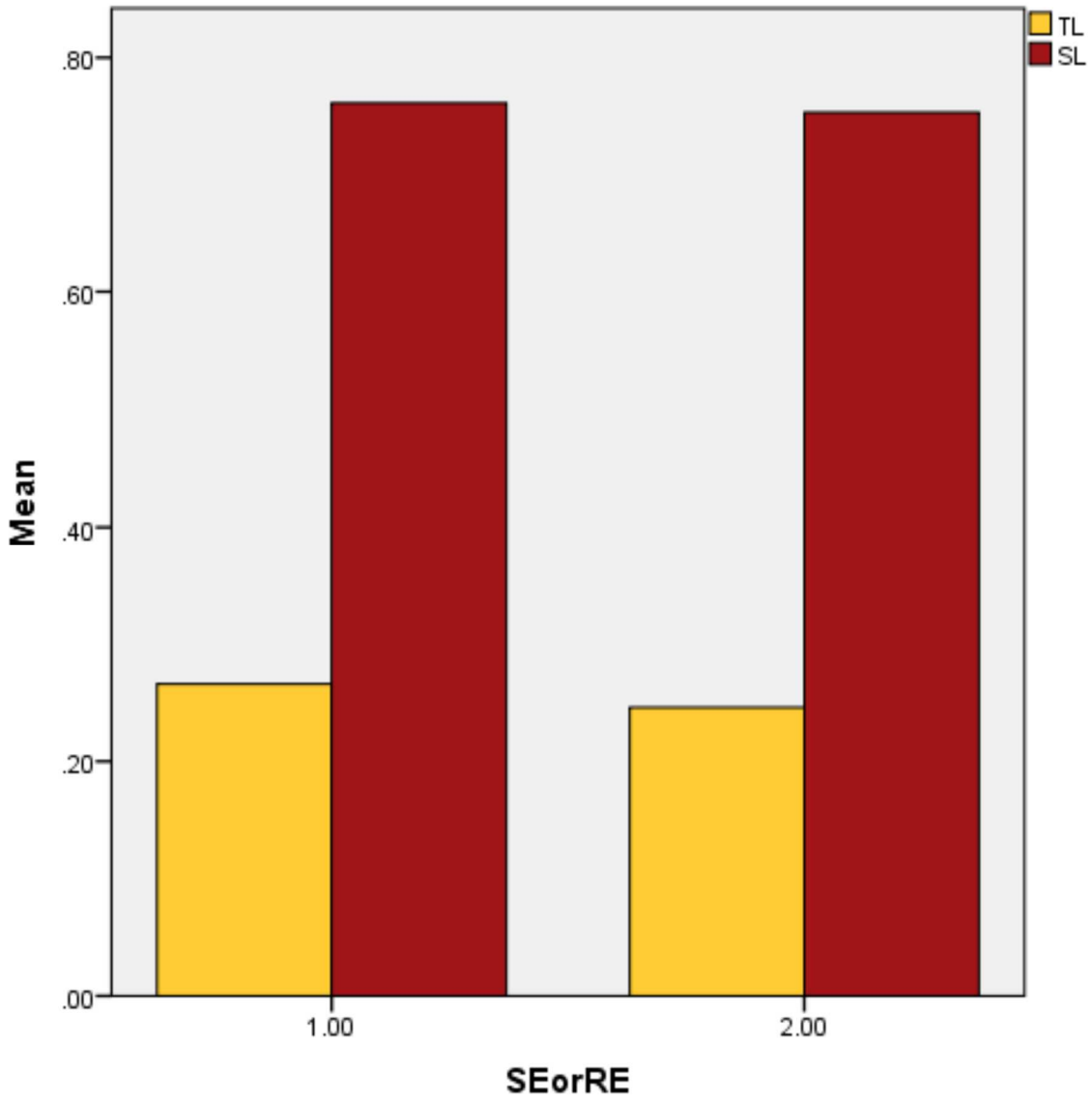

Figure 1. Means of children who receive special education services and children who do not receive special education services chose between student-led and child-led learning center.

Chapter 5

Discussion

Teaching children to play is important because play is flexible and can be used in multiple settings (Wolery, & Bailey, 1989), it sets the occasion for having social communicative interactions with peers (McConnell, 2002), it increases the likelihood of learning in natural and inclusive settings (Buysse, Wesley, Keyes, & Bailey, 1996; Lieber, 1993; Morrison, Sainato, Benchaaban, & Endo, 2002), and may offer a foundation for developing leisure skills. Not only do we need play for its social-emotional, cognitive, motor, and language benefits as listed in chapter two, we need play in our preschool classroom because it may serve as an early intervention tool. Scientific research has clearly shown that an impairment detected and treated at an early age has a much better prognosis; ultimately preventing the impairment from becoming a disability (Nair, Harikumaran, Beena, Princly, Abhiram Chandran, George, & Russell, 2014). Traditional assessment tools have been used in the past but play-based assessment has gaine popularity due to its sound theories and age-appropriate methodology (Eisert, & Lamorey, 1996). Play is an authentic-child directed behavior that is done naturalistically and can be used as a form of data collection and early intervention.

Since various studies suggested that both qualitative and quantitative nature of play were indicative of children's cognitive, academic, and social development, (Linder, 1993), play-based assessment can be a valid naturalistic way to measure the child's development and functioning through objective and subjective instruments (Wu, 2011).

Conclusions Regarding Learning Center Choices of Children who Receive Special Education Services

Both groups of children who receive special education services and children who do not receive special education services were more likely to choose a student led center over a teacher led center. It is important to create an even balance between the centers that are chosen by the two groups to assure that the child is getting an equal amount of teacher-led learning center time and free exploration in the student-led centers. Keeping track of this data will aid in the success of the student as well as give the child opportunities and advancement in both learning center choices. It is especially important to track the learning center choices of children who receive special education services and monitor these choices since children with disabilities engage in fewer play behaviors and display less variety in their play (Charman & Baron-Cohen, 1997; Jarrold, Boucher, & Smith, 1996; Sigman & Ungerer, 1984; Ungerer & Sigman, 1981).

Conclusions Regarding Student Learning Center Choices who do not Receive Special Education Services

The research builds upon the importance of play in schools for both children who receive special education services and for those who do not receive special education services. Not only is play important for analyzing and making sure that both groups of children get even number of chances in student-led and teacher-led centers, it is aids in recognizing preschoolers who may be candidates as being high-achievers or gifted. Since little research has been done on investigating play among children with high abilities (Chamberlin, Buchanan, & Vercimak, 2007), this study should stress the importance of being cognizant of the learning centers that are often chosen by high achieving children such as higher levels of social play, and higher levels of cognitive play (Barnett, and

Fiscella, 1985). An area for future study is to examine the play differences between high ability, typical, and atypical children. Center categories and imaginative level can be compared among the three groups.

Limitations

There were various limitations to the study including the small sample size of only fifteen students and was limited to the preschool population. Another limitation is the location of the study only being in Southern New Jersey. Various districts and even schools within the district offer a variety of learning centers and may not include the same learning centers in this study. The group studied was not a controlled group and was done as a form of naturalistic observation which helped in the process of recognizing the child's innate choice without observation bias but was hindered since some children were directed to a certain learning center because they may not have completed a task. Learning center rules were controlled by the teacher which stated that not more than three friends could be in one learning center at a time which may alter the results. The child could also not pick the same learning center more than once which may force them to choose a learning center they are not truly interested in. The teacher also introduced the learning centers in different ways for the A.M. and P.M. classes such as heightening the interest of a teacher led center and being able to use special markers.

Future Research

Future research should include a larger sample size not limited to only a public preschool from one particular district. Additionally, when studying these intrinsic learning center choices, the researcher should gain some control over the teachers variety

of introductions to the learning center that are not held constant for the two sets of classes. When analyzing these learning center choices, a longer period of time should be used to study the choices over the period of entire school year. In the current study, students were observed for a period of seven weeks and in the middle of the school year.

An area of further research is studying and analyzing the quality of time spent in the learning centers for both children who receive special education services and for children who do not receive special education services. Further research can be done analyzing the importance of the power of play in both children who receive special education services and children who do receive special education services and their likelihood to work at various types of job domains. It is important to understand that play in early years does impact the imagination of children as they go through adolescent, their teenage years, their young adult years, adults years and beyond.

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Appendix

Data Collection Sheet

DATE: AM:

	Student 1 _____ _____ SPED: Y/N	Student 2 _____ _____ SPED: Y/N	Student 3 _____ _____ SPED: Y/N	Student 4 _____ _____ SPED: Y/N	Student 5 _____ _____ SPED: Y/N	Student 6 _____ _____ SPED: Y/N	Student 7 _____ _____ SPED: Y/N	Student 8 _____ _____ SPED: Y/N	Student 9 _____ _____ SPED: Y/N	Student 10 _____ _____ SPED: Y/N	Student 11 _____ _____ SPED: Y/N
Learning Center 1 _____ _____											
Learning Center 2 _____ _____											
Learning Center 3 _____ _____											
Learning Center 4 _____ _____											
Learning Center 5 _____ _____											