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The impact of pretend play on cognitive and academic development of kindergarten students

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The Impact of Pretend Play on Cognitive and Academic Development of Kindergarten Students

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CHAPTER I

Introduction

Description of Topic

"Play is the activity that is most conducive to development in young children" (Bodrova & Leong, 2001, p. 15). Children love to play. Play gives children many opportunities to explore the different aspects of their world, interact with others, problem solve, work through different emotions, and practice emerging skills (Copple & Bredekamp, 2009). Play is an intrinsically motivating activity that is engaging to children because it can take many forms and vary in complexity (Swindells & Stagnitti, 2006).

Participating in pretend play requires children to use many complex cognitive and social skills (Kim, 1999). Children who engage in pretend play are likely to be more cognitively and socially competent (Swindells & Stagnitti, 2006). Play also allows children to choose activities freely, providing an engaging experience that is self-directed and self-motivated (Lockhart, 2010). In order to promote excellence in the early childhood field, the National Association for the Education of Young Children (NAEYC) created a position statement that outlined practice that promotes optimal learning and development for young children; this is known as developmentally appropriate practice (Copple & Bredekamp, 2009). NAEYC's third edition of the book on developmentally appropriate practice (DAP) described how children learn best through play (Copple & Bredekamp, 2009).

Despite NAEYC's position statement regarding the importance of play in the early years of development, play-based learning has disappeared from many

kindergartens, and is quickly being replaced in preschools (Alliance for Childhood, 2012). There is a great amount of state and national emphasis on proficiency test performance (Bergen, 2002). This emphasis has led to a large number of teachers and administrators focusing on the enhancement of student performance on tests that meet accountability requirements. With the stress on high student performance, meeting the standards of the education field and maintaining accountability have led curriculum to be mainly focused on content, taking focus away from the developmental needs of children (Izumi-Taylor, Samuelsson, & Rogers, 2010). Kindergarten has become a structured environment with requirements to prepare children for standardized testing in kindergarten and the future (Ray & Smith, 2010).

With the current pressures, kindergarten teachers are spending less time encouraging pretend play, exploration, and creativity and more time focusing on academic success (Ray & Smith, 2010). However, Bodrova (2008) stated that young children develop higher mental functions during dramatic and make-believe play. This dramatic or pretend play, although not as heavily emphasized in today's kindergarten classroom, still provides valuable learning experiences.

Rationale

The inclusion of play in the daily schedule has been dwindling due to policy makers and their focus on academic achievement. Demands for teacher accountability and measurable outcomes have forced play to be a limited piece of curriculum (Bodrova & Leong, 2003). This emphasis on academic proficiency has had an impact on the amount of play occurring in early childhood settings. The small amount of social pretend play that has been allowed is being eliminated in order for curriculum to focus more on

academic content rather than focusing on the developmental learning needs of children (Izumi-Taylor et al., 2010).

Children in the 21st century are playing less, and also playing differently (Warner, 2008). Many children no longer focus their play around an activity, but instead on an object. Countless children now have toys that are electronic and can talk or do something intended for a single purpose. The idea of playing with simple toys is declining. However, as noted by Synodi (2010), there is a body of literature that emphasizes play contributing to each aspect of children's early development, including areas of cognitive, linguistic, social, and physical development. This review of literature will focus on the cognitive and academic benefits of pretend play in early childhood classrooms, most specifically in kindergarten classrooms.

NAEYC, in its third revision of the book on developmentally appropriate practice (DAP) (Copple & Bredekamp, 2009), noted "play is an important vehicle for developing self-regulation as well as for promoting language, cognition, and social competence" (p. 14). Bergen (2001) claimed the use of language during pretend play may have the ability to help build social and linguistic competence, which is vital to children's school success. Sharing toys, turn taking, and interaction are social competencies that are important for developing behaviors that are essential to a child learning to function in a social environment (Uren & Stagnitti, 2009). There are many types of play that offer different potential benefits to children (Copple & Bredekamp, 2009).

Vygotsky (1978) limited his use of the word *play* to mean dramatic or make-believe play. He did not include other types of activities, such as movement or games with rules. Likewise, this review will focus on the use of pretend play, a more current

term used for dramatic or make-believe play. When reviewing research studies or paraphrasing authors, this review will use the term pretend play in order to avoid confusion. During pretend play, children create an imaginary situation that allows them to act out chosen roles and follow a set of rules determined by those roles (Vygotsky, 1978).

Purpose of Review Results

Many kindergarten teachers are being forced to teach more academic skills, leaving less time for pretend play in the classroom. As a kindergarten teacher concerned about the effects of decreasing amounts of time allowed for pretend play on my own classroom, I can relate to this situation. Bodrova (2008) explained that instruction in preschool and kindergarten should focus on the fundamentals of academic skills, but that teachers should promote them through play. The purpose of this review is to examine current research that focuses on pretend play in the early childhood setting and its relationship to cognitive development for young children. In addition, the review will study recent research to determine whether there are academic benefits from implementing pretend play with kindergarten-aged children.

Importance of Review

Knowledge and insights on the cognitive and academic benefits of pretend play in the classroom could help educators validate play continuing to be a part of early childhood curriculum. More and more kindergarten classrooms are being forced to cut or eliminate play time to allow room for more explicit academic driven instruction (Bodrova & Leong, 2003). Pressure has been put on teachers and administrators to raise student achievement in literacy and math, even in the early years of school. Some administrators,

teachers, and parents have assumed that cutting play time and adding focus to literacy and math skills may be the answer to this new academic achievement pressure. Educators are facing pressure to teach academic skills at younger ages (Bodrova, 2008). Our children seem to be growing up too fast in school; five year olds do not have many opportunities to play. Without play, children lack the opportunity to be intrinsically motivated to use their imagination and play with peers.

To emphasize the importance of pretend play in child development, Bodrova and Leong (2007) discussed the concept of a *leading activity.* Leont'ev (as cited in Bodrova and Leong, 2007) used the term to identify which types of interactions a child has with the social environment that will lead to developmental accomplishments and prepare the child for achievement in future development. According to Leont'ev the leading activity is "...the only type of interaction at a certain period of life that will produce major developmental accomplishments, provide the basis for other activities (interactions), and induce the creation of new mental processes and the restructuring of old ones" (as cited in Bodrova & Leong, 2007, p. 98). The leading activity for preschool and kindergarten-aged children is play. Most of a kindergarten teacher's efforts should be directed toward implementing play. Early childhood and kindergarten teachers lay the groundwork for the learning that takes place in the primary grades. Therefore, teachers should create learning opportunities that allow for developmental accomplishments to occur in kindergarten; remembering the leading activity, the one that produces developmental accomplishments is play.

With current policy makers examining teacher accountability, additional knowledge about pretend play could be beneficial in justifying certain amounts of pretend

play within kindergarten curricula. Teachers are accountable for student learning, and should have reasoning for their practices. Information provided through this review could be used to help illuminate the importance of pretend play. The review may also provide validation for pretend play as an academic strategy in kindergarten classrooms.

Research Questions

This literature review examines the relationship between pretend play and cognitive development of young children; it also studies the academic benefits of pretend play for kindergarten-aged children. The review will also recommend appropriate ways to integrate pretend play into kindergarten curriculum in order to support achievement outcomes. The review was designed to answer the following questions:

1. What effects does pretend play have on the cognitive development of young children?
2. What academic benefits does pretend play provide for kindergarten-aged children?
3. How can kindergarten teachers integrate pretend play into the curriculum in ways that support achievement outcomes?

Terminology

For the purpose and better understanding of this review, I will define the following terms:

Developmentally Appropriate Practice—NAEYC described developmentally appropriate practice (DAP) as a framework for best practice promoting "young children's optimal learning and development…grounded both in research on child development and learning

and in the knowledge base regarding educational effectiveness in early care and education" (Copple & Bredekamp, 2009, p. 16).

Early Childhood Education—Teaching children from birth through third grade.

Executive Functioning—This "refers to the attention shifting, working memory, and inhibitory control cognitive processes that are utilized in planning, problem solving, and goal-directed activity" (Miyake, Friedman, Emerson, Witzki, & Howerter, 2000, as cited in Blair & Razza, 2007).

Inhibitory Control—"...the ability to inhibit prepotent response tendencies in the face of irrelevant or distracting information..." (Blair & Razza, 2007). It can be further described as the ability to focus in the presence of distraction.

Mature Play—A term used to describe play that provides maximum benefits for children's development (Elkonin, 2005 as cited in Bodrova & Leong, 2007).

NAEYC—The National Association for the Education of Young Children (NAEYC) is the "leader in promoting excellence in early childhood education for all young children from birth through age 8" (NAEYC, n.d.).

Play Centers—This is an established socio-dramatic play area that is complete with a variety of clothes, props, and manipulatives appropriate to the particular setting (Saracho, 2001).

Play Plan—Bodrova and Leong (2001) explain, "a play plan is a description of what the child expects to do during the play period, including the imaginary situation, the roles and the props" (p. 18).

Pretend Play—This is when children create an imaginary situation that allows them to act out chosen roles and follow a set of rules determined by those roles (Vygotsky, 1978).

Dramatic play, make-believe play, and socio-dramatic play are terms that have been used in the past in place of pretend play. For the purpose of this review I have chosen to use the term pretend play.

Scaffolded Writing—This is demonstrated when "a teacher helps a child plan his/her own message by drawing a line to stand for each word the child says" (Bodrova & Leong, 2001, p. 20).

Scaffolding—The process of a student's transition from teacher assistance to independence (Bodrova & Leong, 2001).

Zone of Proximal Development—"It is the distance between the actual development level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" (Vygotsky, 1978, p. 86).

CHAPTER II

Methodology

This section will describe the methodology I used in order to conduct my literature review, which focuses on the benefits of pretend play in kindergarten-aged children. I will explain how I located quality research articles, selected specific research to include in the review, analyzed the content, and synthesized the material with the aim of providing meaningful information to readers.

Method to Locate Sources

I began my search for useful research articles at the University of Northern Iowa's Rod Library homepage where a variety of databases are provided for student use. I used several of these databases, including ERIC, Academic One File (GALE), Academic Search Elite (EBSCO), PsycINFO, and Education Full Text (WILSON), to locate many journal and research articles. I also searched through Google Scholar and the *Early Childhood Research and Practice* web-site. At the beginning of my search, I included search terms such as: *early childhood, play, benefits of play, early childhood education,* and *importance of play.* After reviewing some of the initial articles which were located, I realized I needed to find articles with more in-depth and specific content. I continued my search with more specific search terms, including *pretend play in early childhood, pretend play in kindergarten, socio-dramatic play, pretend play and cognitive development, social benefits of play, importance of play in early childhood, early childhood mathematics, literacy development and play, literacy and pretend play,* and *self-regulation and play.* I also limited my searches to full-text, peer reviewed articles.

After locating articles of higher quality, I found it helpful to search for additional articles using the backward snowball research method. While using Google Scholar, I also used the *related article* and *cited by* features to find additional articles. I found it useful to include some information from a textbook, which was used during my graduate courses. I also used Rod Library's UNISTAR library catalog to search for books that were helpful to my research and analysis.

Method to Select Sources

As I selected sources, I strived to collect current research, within the last ten years. I found that several earlier research journals and articles have focused on the benefits of play; however, since education changes so frequently, I originally wanted to include the most recent information and findings possible. As my research continued, I discovered this was a limitation. I eventually considered older research that was directly related to my topic, having been published within the last 13 years. I also included some content from well-known theorist Lev Vygotsky.

Procedures to Analyze Sources

To begin my analysis of research for the review, I thoroughly read and recorded notes for each article. I noted quality quotations and data that I could possibly reference at a later date in my review. I also highlighted information that was important to each study. Highlighting provided a quick visual reference to key points in the articles when I went back to them later. After reading each article, I organized them according to their relationship with each of my research questions. I labeled each study with a research question number and created stacks of the research studies and information related to each question to stay organized. This also helped me know how much information I had

available on each topic I planned to review. I also used color-coded Post-its tabs to organize information I located in text books. I found it easy to keep things organized this way. I could visually see the amount of information I had available for each research question. The time of organization and research was beneficial as I began to synthesize information to complete the review.

Criteria to Include Literature

While searching for research articles for use in the review, I focused on a set of criteria I developed to guide my analysis of research. The criteria to include literature within my review were as follows: a) research must be current and published within the last ten years, however, I did include three research studies and one article that were published within the last 13 years, b) research articles were peer-reviewed or from well-known organizations, c) participants of research needed to be preschool, kindergarten, or primary-aged students, and d) research must have a primary focus on pretend play within the curriculum of these age groups, or focus on developmental outcomes as a result of play included within the curriculum.

CHAPTER III

Literature Review

Developing a review of research will be beneficial to educators to aid their understanding of the importance of including pretend play within their daily schedules and curriculum. This review of research will explain how pretend play benefits cognitive development and academic success in kindergarten-aged children. It will help educators justify the inclusion of pretend play within their classrooms and help defend pretend play as an important part of early childhood development. The following chapter will answer these research questions:

1. What effects does pretend play have on the cognitive development of young children?
2. What academic benefits does pretend play provide for kindergarten-aged children?
3. How can kindergarten teachers integrate pretend play into the curriculum in ways that support achievement outcomes?

Cognitive Development during Pretend Play

Pretend play can engage many areas of the brain because it involves various domains of learning, including emotional, cognitive, language, and sensorimotor development. Many cognitive strategies are demonstrated through pretend play, such as joint planning, negotiation, problem solving, and goal seeking (Gmitrova & Gmitrov, 2003).

Gmitrova and Gmitrov conducted research in Presov, Slovak Republic. They studied the effects that different forms of organization of pretend play had on children's

cognitive and affective development in a mixed-aged environment (Gmitrova & Gmitrov, 2003). The researchers observed 51 children in mixed-aged classrooms, from the same geographic area and similar in ethnic and socioeconomic context. Children were between the ages of three and six years old. Twenty-six observations took place from March 26 to June 12, 2001. Each observation took place between 8:30 a.m. and 10:30 a.m. local time, four days a week. Two forms of pretend play were studied: a) teacher-directed pretend play, and b) child-directed pretend play. Teacher directed-pretend play involved the simultaneous involvement of all the children in the classroom, where the teacher had prepared an organized lesson, playing the dominant role in directing the activity. Child-directed pretend play referred to free play that occurred in various small groups throughout the classroom without direction from the teacher. Two teachers with the same educational background performed the observations within their own classrooms. Data was recorded using a typing list that was developed according to the taxonomies of Bloom for the cognitive domain and Krathwohl for the affective domain. Researchers found that during child-directed play groups, cognitive behaviors increased significantly and affective behaviors decreased.

In a study on cognitive co-construction in kindergarten, Leseman, Rollenberg, and Rispens (2001) focused on two separate educational situations: child-directed free play and teacher-directed work lessons. The purpose was to study children's behavior and social interactions in free play and work lessons. The study took place in a mid-sized town in the western part of the Netherlands, involving 40 kindergarten children in seven classrooms from six schools. Participants spoke Dutch as their first language and were younger than 60 months old, with a mean age of 53 months. Five or six target children

from each classroom, along with their teachers, if they were involved, were observed for one week using a video camera and wireless microphones attached to the target children during free play and work lessons. Three cycles of observations were made using video recordings that were two minutes long for each of the target children. Free play and work lessons were observed yielding a total of six minutes of observation for each child. Each target child's cognitive ability was assessed by a trained assistant who administered a test [not identified] to each individual child in a separate room. A parent questionnaire was also sent home requesting written completion about the child's personality characteristics and socioeconomic background. Results of the study showed an "overall higher cognitive distancing level of the children's behavior in play as compared to the work lessons" (p. 379).

Teachers are faced with the challenge to increase cognitive outcomes for young children. Twenty-four children, ages four years to five years, two months, with their families and teachers, participated in a study focused on imagination being the bridge between pretend play and learning in kindergarten practice (Fleer, 2011). This research focused on the pretend play practices of kindergarten children in order to understand how children give new meaning to the objects in their play environment, while building understanding of the roles and rules of society. The study took place in south-eastern Australia. Children were videotaped for 17 days during free play with little adult involvement. All children were allowed to play both inside and outside and to interact freely, with four focus children videotaped throughout the day. Data included ten hours of videotaped play, four family interviews, 65 family photographs, 300 play photographs, 17 days of field notes, and five staff interviews. The examples of pretend play recorded

within the data showed students were completely engaged in imaginary situations. Imagination was central to children's thinking, within their pretend play. Data showed how children relate imaginary situations with concept investigation. Imagination can be used to investigate the environment and understand reality. Fleer (2011) noted "children could easily move between imagination and real-world experiences and back again, all within one sustained conversation with an adult or between peers..." (p. 256). Kindergarten children also imagine collectively and individually during engagement of abstract ideas within the classroom, therefore indicating that "children can rise to the concrete and think dialectically and imaginatively" (Fleer, 2011, p. 257).

Self-regulation as a part of cognitive development. Self-regulation is essential for children to meet the academic and social requirements of school. A self-regulated child has the ability to wait for a turn, resist temptation, and clean up after play. They also have the willingness to help others and the ability to stay persistent when distracted or challenged with an activity. Children who are self-regulated are also capable of controlling negative emotions (Berk, Mann, & Ogan, 2006). Vygotsky (1978) explained that "play continually creates demands on the child to act against immediate impulse" (p. 99). He described that when children play they are constantly facing conflicts between the rules of their game and their own impulses. A child will act against his own spontaneous actions to follow the rules of the game. According to Vygotsky (1978) "a child's greatest self-control occurs in play" (p. 99).

A study conducted by Elias and Berk (2002) aimed to determine if complex socio-dramatic play was related to the development of self-regulation. Fifty-three Caucasian, English speaking children ages three and four were recruited as participants in

the study. Children in two daycare programs in a Midwestern city were observed two times. Time 1 occurred in the early fall and the follow up Time 2 occurred in the late winter or early spring. At the time of the follow up observation, two children were no longer enrolled in the program, so the final sample size was 51, with 24 three-year-olds and 27 four-year-olds. Observations were made in four classrooms, two from each program. Each of the classrooms had similar schedules and various play stations. Observations were made in the housekeeping and block areas, two learning centers where children typically engage in pretend play. Time intervals of 30 seconds were observed and coded using an adaptation of the Smilansky Scale, measuring the maturity of children's solitary dramatic and socio-dramatic play through five play elements. Imitative role play, make-believe with objects, make-believe actions and situations, interactions, and verbal communication were the elements measured. Researchers coded whether each of the five elements of play were present during each observation. A frequency score and persistence score were obtained for pretend play. Self-regulation was assessed at both Time 1 and Time 2 during clean-up and circle times in the classroom. Observers rated the degree of how children took responsibility during clean up. The study found that children engaged "in greater frequency and persistence CSD [Complex Socio-dramatic] play showed better future self-regulatory performance during clean-up time" (p. 231). Although this study focused on prekindergarten age children, it can be easily related to those of the kindergarten age. Twenty-seven of the participants were 4-year-olds in the fall during Time 1; however they would have been approaching kindergarten age by Time 2 in the late winter or early spring.

Self-regulation related to academic achievement. We know cognitive development relates to academic achievement. This section of the review will focus on research regarding how academic achievement can benefit from a student's self-regulation abilities.

One-hundred seventy Head Start children participated in a study aimed "to examine interrelations among executive functioning, effortful control, and false belief understanding in children from low-socio economic status backgrounds and to determine the unique contribution of each to measures of emerging math and literacy ability in kindergarten" (Blair & Razza, 2007, p. 649.) The mean age for preschool children tested was five years, one month. Children at the time of the kindergarten testing had a mean age of six years, two months. The sample consisted of 80 female and 90 male children. Of participants that reported ethnicity, 80% reported White, 12% reported more than one ethnicity, 6% reported being Asian, and 2% reported African American. Children in preschool were seen in two 45 minute sessions, in a quiet testing area.

In the first session, "children were administered a measure of receptive vocabulary and an attention-shifting measure of executive function" (Blair & Razza, 2007, p. 650). During the item selection measure of attention-shifting, children were presented three pictures that varied by two or three dimensions (size, shape, or color) and were instructed to identify, by pointing, to two objects that go together in one way, during 15 trials. Then children were asked to identify two objects that go together in a different way, requiring them to shift cognitively. During the second session, "a peg-tapping measure of executive function was administered along with two measures of false belief understanding" (p. 650). During the peg-tapping measure, students were told to tap twice

with a wooden dowel when the examiner tapped once, and students were to tap once when the examiner tapped twice. After the allowed practice trials, a sequence of 16 trials in a counterbalanced sequence was administered. To measure false-belief understanding, two assessments were administered: 1) An unexpected contents task was administered, in which an egg carton was placed in front of the child and he or she was asked a control question to tell what was inside. Instead of finding eggs inside, he or she found crayons. The test question was asked after the carton was shut; asking the student what he or she thought was in the carton before it was opened. It was followed by a control question asking what was really in the carton. This task was scored as pass or fail. 2) A changed locations task was administered. This was demonstrated by an object being placed by one character and being relocated by another character while the first character was out of sight. Students were asked to predict where the first character might look for the missing object. This task was also scored by pass or fail. To pass students had to correctly answer the control question of remembering where the object is now and the test question asking where the first character would look for the object.

To obtain information on effortful control, parents and teachers reported on child temperament and teachers reported on classroom behavior using a short form of the Children's Behavior Questionnaire, using a Likert scale. All children were again seen in the kindergarten year. Each child had a single session in a quiet testing room. The peg-tapping and item selection were repeated. In the kindergarten session, early academic measures were administered. The Peabody Picture Vocabulary Test—3 and Raven's Colored Progressive Matrices test were given to assess intelligence. The kindergarten academic outcomes were assessed in the areas of mathematics knowledge, phonemic

awareness, and letter knowledge. To assess kindergarten mathematics knowledge, an adapted form of the Early Childhood Longitudinal Study—Kindergarten was used. Reading readiness and phonemic awareness were assessed using the Elision subtest of the Preschool Comprehensive Test of Phonological and Print Processing. Letter knowledge was evaluated using a test from the Head Start National Reporting System Direct Child Assessment. The study showed "the inhibitory control aspect of executive functioning was the only one to be independently related to all three measures of academic ability" (Blair & Razza, 2007, p. 657). Findings showed that inhibitory control in preschool and kindergarten provided evidence that this aspect of executive function impacts mathematic ability. Results also showed "a role for executive function in the process of acquiring automaticity in letter identification and phonemic awareness but one that is less substantial than for math" (p. 659). Overall the findings were consistent with the indication that executive function is a central aspect of cognitive development.

These sections have reviewed how pretend play affects cognitive development in kindergarten-aged children. Cognitive behaviors increase significantly with the use of pretend play (Gmitrova & Gmitrov, 2003). Frequency and persistence during pretend play has shown a relationship to improved self-regulation skills (Elias & Berk, 2002). Blair and Razza (2007) also demonstrated that self-regulation impacts mathematics skills, as well as letter identification and phonemic awareness. The review will further investigate how pretend play can benefit academic development of literacy and mathematics skills.

Early Literacy Development and Play Centers

Kindergarten play centers can be organized to support early literacy development. Play centers also provide the opportunity to promote language and literacy (Saracho, 2001). "Young children need writing to help them learn about reading, they need reading to help them learn about writing; and they need oral language to help them learn about both" (Roskos, Christie, & Richgels, 2003, p. 54).

A study focused on literacy enriched play centers concentrated on children's opportunities to create spoken and written language. Five classrooms of kindergarten children in a formal school setting participated in the study, which involved an eight-week intervention period. During the intervention, play centers were supplemented with literacy enriched printed materials and tools. Children's behaviors during play were videotaped after the intervention. The observations of children in the literacy-enriched centers were transcribed and formally analyzed. Analysis included videotape viewing and reading the transcriptions several times. The results showed play behaviors contributed to children's literacy development. Some of the literacy behaviors present in the play centers were: following directions, interacting to develop vocabulary, sequencing of events in spontaneous play, developing language through role play, and creating stories based on prior experiences (Saracho, 2001).

A comparative study conducted in Victoria, Australia, focused on students with low socioeconomic backgrounds and their play, language, and social skills. The study conducted by Reynolds, Stagnitti, and Kidd (2011) explored whether a play-based curriculum or a traditionally structured classroom was the most appropriate learning environment for low socioeconomic students. Children aged four to six years old from

two primary schools participated in the study. School 1, the play-based curriculum classroom, had used information from experts to construct a play-based curriculum, with a number of play areas in the classroom they believed would foster development of young students. They used guidance from the Reggio Emilia approach and Kathy Walker's Australian Developmental Curriculum. In School 1 the emphasis was placed on a children's environment, with the teachers' goal to identify their students' interests, abilities, and skills. Each day in the classroom, teachers used scaffolding to develop children's learning and they chose some directed activities as well. School 2, the traditionally structured curriculum classroom, had two main classroom areas: tables and chairs and floor space. In School 2 the main activities for the day included literacy, science, math, physical education, and music. Each day a certain amount of time was set aside for each subject area listed. The study involved pre- and post-testing using the Child-Initiated Pretend Play Assessment (ChIPPA), the School Age Oral Language Assessment (SAOLA), and the Penn Interactive Peer Play Scale (PIPPS). Baseline assessments were given to 31 children in February. Follow-up assessments were given to 26 children still participating in the study in August of the same year. Teachers completed the PIPPS, whereas the ChIPPA and SAOLA assessments were completed by the first author. At the baseline assessment, no significant differences in play, language, narrative re-tell, and social skills were evident between students in School 1 and School 2. However, the post-test results of the study showed "children who attended a school with a play-based curriculum significantly increased their scores in elaborate play abilities over a six-month period" (Reynolds et al., 2011, p. 127). Results also showed children who participated in the play-based curriculum after six months had significant

increases in semantic language. Participants from School 1 also had significantly higher narrative language abilities after the six month period. This study provided positive evidence of the benefits of using play-based curriculum. It demonstrated the increases in children's abilities in emergent literacy skills, such as language abilities, narrative language, complex play, and peer social competence (Reynolds et al., 2011).

Literacy Development with the Use of Play Plans

Bodrova and Leong (2001) developed The Tools of the Mind project centered around the need for developmentally appropriate teaching to scaffold cognitive and literacy skills, the need for instruments that combine standardized and authentic assessment, the need for a way to monitor student progress, and a way to transfer knowledge to teachers. The project followed Vygotskian beliefs on the importance of dramatic play in preschool and kindergarten. Instructional strategies were used to support play. Teachers helped children initiate and sustain pretend play by using resources such as field trips, presentations, books, and videos. Appropriate props were also available for play, remembering that mature play occurs only when children use their imagination to create props (Bodrova & Leong, 2001). Teachers in the classrooms helped children brainstorm ways to use various props, without having toys that closely replicated them. For example, instead of having play food in the kitchen, children might be encouraged to use other props such as blocks, yarn, and paper to imagine food items. Teachers also helped develop mature play through the use of play plans. A certain progression, beginning with child dictated messages and ending with student attempted writing of the play plan messages was used. Throughout this process, Scaffolded Writing was used. The progression included voice-to-print match, realizing letters represent

sounds, writing letters or letter-like forms, repeating the message, attempts to write words on lines, and finally writing long and complete messages independently. When children were able to write their own messages, they were asked to reread and edit the messages. The authors implemented the project in four different phases, including: Phase 1) adaptation of Vygotskian-based strategies to the American classroom; Phase 2) large-scale implementation and teacher training; Phase 3) evaluation of teaching strategies; and Phase 4) continued development of the Early Literacy Assessment (ELA) and alignment with benchmarks. The Tools of the Mind project began in January 1997 to improve underlying cognitive and early literacy skills of kindergarten students (Bodrova & Leong, 2001). Participants in the study were from ten kindergarten classrooms in a public school system whose teachers also participated. Five teachers were the control group, and five were experimental. Two-hundred eighteen students participated in the project classrooms and 208 were in non-project classrooms. Scaffolded Writing, written learning plans, and sound analysis were implemented in each of the classrooms, taking approximately ten percent of instructional time per week. Students were assessed at the beginning of the semester in January and again at the end of the semester in May. Assessments were given to children on a one-to-one basis in a session that lasted approximately 20 minutes per child. A writing sample was administered as a whole group, and as children finished, each child read his/her writing to a tester individually. The five assessments given for the pre-test and post-test included letter recognition, sound-to-symbol correspondence, words versus pictures, instant words, and a writing sample. Two additional assessments, reading concepts and the Venger Graphical Dictation Test measuring self-regulation, were given at the end of the semester in May. Data analysis was conducted using S-Plus

software. Pre-test results showed no significant differences between project and non-project schools. Comparisons of pre-tests and post-tests of each of the schools showed students from projects schools demonstrated a faster rate of progress and higher levels of performance than children from non-project schools. Higher levels of writing were demonstrated by children in the project schools. Significant differences in writing between project and non-project schools included: number of words written, increased complexity of writing, increased correspondence of the written story and re-read by the child, consistent use of writing conventions and more new words, and more accurate spelling and better phonemic encoding.

Teachers' Roles in Literacy Development through Pretend Play

Teachers play an important role in children's play process (Bodrova & Leong, 2007). However, many teachers are not aware of the developmentally appropriate ways to support literacy-play (Korat, Bahar, & Snapir, 2003).

In a study conducted by Saracho (2004), the roles teachers played in children's literacy-related play were investigated. Five kindergarten teachers and their students participated in the study. Each teacher integrated language, reading, and writing concepts into children's play. The teachers' actions and interactions with children during play were observed and videotaped for five months. Teacher and student actions and interactions were transcribed. Roles of teachers were selected from the documented videotapes, using a defined set of criteria. Frequency counts of student behaviors were used in connection with each role selected (Saracho, 2004). Six teacher roles were defined by the data. 1) The teacher role as constituent meant teachers were equal members of the group, participating in the activity with the children. 2) A second role

held by teachers was a promoter of children's learning. Teachers selected props, pictures, stories, and dialogue based on the interests and needs of their students. Those selected were attractive, appropriate, and innovative. 3) Teachers also held the role of monitor of children's learning. In this role, teachers guided children's learning to ensure they learned the concepts. 4) Teachers hold a role of storyteller in the classroom, reading or telling stories while children listen and respond. 5) The fifth role identified through the study was the teachers' role as group discussion leader of children's learning, to introduce new concepts and review others. 6) Finally, the teacher's role as an instructional guide of children's learning was identified. Data collected in this study indicated teachers play various roles during children's literacy-related play. "Emergent literacy in a literacy-rich play environment warrants teachers to allow endless opportunities to practice reading, writing, speaking, and listening. Most of these activities can be offered in a literate environment during the children's spontaneous play" (Saracho, 2004, p. 205). To support children's learning through play, teachers need to create a play environment that includes reading and writing centers, writing activities, and print labels.

A project was carried out in Tel-Aviv, Israel, at Levinski Teachers College in order to focus on the support one teacher gave during literacy-related play (Korat et al., 2003). The kindergarten class was a part of the college and its system. Thirty-two children between the ages of five-and-one-half and six-and-one-half, from a middle-class neighborhood, participated in the study. Children in the classroom had been exposed to written language and books. Their classroom environment included center areas of art, block building, home activity center, doctor center, and a nature center. Data was

collected through observations, field notes, still pictures, anecdotal records, and children's samples of emergent writing. During the project the teacher was observed understanding children's play, when she was invited to join them. In a situation where students wanted to write, the teacher was able to encourage them to record their writing in a non-conventional way. The teacher used scaffolding to lead students forward in their zone of proximal development. The teacher's presence also played a main role in this study. "By listening and responding to the children, she affected the kind of solutions they produced to their problems" (Korat et al., 2003, p. 392). She was able to provide her students guidance without taking away their control in the play setting. Children were able to use their knowledge about print to reach their own goals, without constantly depending on the teacher. The study found that a teacher's interventions can provide children with a bridge between their knowledge about early literacy and the real world by elaborating children's language, asking questions, and modeling high-level thought processes (Korat et al., 2003). Scaffolding students' learning within their zone of proximal development allowed this teacher to further develop her students' literacy abilities.

Pretend Play Supports DAP in Mathematics Instruction in Early Childhood

In my experience, students also engage in mathematical play during pretend play time. In a joint position statement, the National Council of Teachers of Mathematics (NCTM) and NAEYC confirmed that the foundation of future mathematical learning for children age three to six-years-old is a high-quality and challenging classroom experience in mathematics (NAEYC, 2002). The position statement highlighted ten key points that teachers and other professionals should focus on to provide a high-quality mathematics

education for children of these ages, one focusing on the importance of play. They suggested that ample time, materials, and teacher support be provided to engage children in play. Play is a context where children can explore and manipulate mathematical ideas within their own interest areas (NAEYC, 2002). NCTM and NAEYC (2002) advised "play does not guarantee mathematical development, but it offers rich possibilities" (p. 8). The opportunities provided through pretend play can help children gain a positive experience with mathematics; as they are engaged in pretend play, they experience problem solving, sorting, classifying, comparing, and explore shapes and patterns.

To gain a deeper understanding of students' mathematical interests in early childhood, a study was conducted by Seo and Ginsburg (cited in Clements, Sarama, & DiBiase, 2004). Seo and Ginsburg wanted to identify how often children engage in mathematical activities during pretend play, what kinds of mathematical activities children engage in during pretend play, and if the everyday mathematics of low-income and middle-income minority children differed from Caucasian upper-income children. Ninety four- and five-year-old children from five schools participated in the study. Thirty children were from low-income families, 18 African Americans and 12 Latinos. Thirty children were from middle-income families, 13 African Americans, 13 Latinos, and four Whites. There were also 30 White children from upper-income families. The study began by researchers observing all 90 children, individually, during their pretend play time. A video camera and cordless microphone were also used in the classrooms to videotape each of the target children's play for 15 minutes. Mathematical codes were developed to analyze children's everyday mathematical activities in their classrooms. The codes included the content of classification, magnitude, enumeration, dynamics,

pattern and shape, and spatial relations. Results from the study showed that 79 out of 90 children engaged in at least one mathematical activity during their pretend play, revealing that young children engage in a considerable amount of mathematical activities during their pretend play experiences. Family income levels were not related to the frequency of mathematical activities during pretend play. Results identified pattern and shape as the most frequently occurring mathematical activity that occurred during children's play, occurring 21% of the time. Magnitude occurred 13% of the time, enumeration occurred 12% of the time, dynamics 5%, spatial relations 4%, and classification 2% of the time. Older children in the study engaged in mathematical activities more frequently than younger children studied. The study determined that children do learn from pretend play, but mathematics instruction should not be limited to play. Children can learn much more with scaffolding and challenging activities provided by teachers. However, teachers are urged to recognize that children deserve more than drill and practice with homework sheets. It is concluded that teachers should strive to engage students in diverse and challenging activities (Seo & Ginsburg, as cited in Clements, Sarama, & DiBiase, 2004).

This section in the literature review studied the ways that pretend play can benefit the academic skills of literacy and mathematics in kindergarten children. Within a play-based curriculum, increased scores in semantic language and higher narrative language were reported (Reynolds et al., 2011). Literacy enriched play centers also assisted in the development of ability to follow directions, vocabulary, sequencing of events, language development, and the ability of creating stories (Saracho, 2001). Bodrova and Leong (2001) created a project that demonstrated the benefits of using Scaffolded Writing and play plans to assist children's literacy development through play. Research also indicated

a benefit in mathematical development during play (Seo & Ginsburg, as cited in Clements, Sarama, & DiBiase, 2004). This final study showed that children engage in a considerable amount of mathematics activities during their free play time, indicating that children do learn from play.

Integrating Pretend Play

In my experience, integrating pretend play in kindergarten classrooms can be challenging. Kindergarten teachers need guidance in order to incorporate pretend play within the curriculum while preserving students' achievement outcomes.

Teachers' roles in enriching pretend play. With the importance of play in literacy and cognitive development, it is essential that children's play is good, quality play. Children need to be engaged in mature play that stretches them to play and pretend beyond familiar scenarios and realistic toys and props. It is vital that teachers intervene to improve the quality of students' pretend play (Bodrova & Leong, 2007).

Nonetheless, teachers need to be cautious of their interactions with students during pretend play. It is not a teacher's role to direct play or play with children. Teachers are urged to avoid having too much interaction with students during play so they have the opportunity to observe children during their pretend play. Taking time to observe children at play can help determine the child's zone of proximal development (ZPD). Moreover, teachers have important roles in the play process. Teachers who are sensitive to their students' needs and are able to provide appropriate scaffolding can have a positive impact on play within their classrooms (Bodrova & Leong, 2007).

Bodrova and Leong (2007) identified nine interventions to foster higher levels of play, including:

> 1) make sure children have sufficient time for play, 2) provide ideas for themes that extend children's experiences and enrich the play, 3) choose appropriate props and toys, 4) help children plan their play, 5) monitor the progress of play, 6) coach individuals who may need help, 7) suggest or model how themes can be woven together, 8) model appropriate ways to solve disputes, and 9) encourage children to mentor each other in play. (Bodrova & Leong, 2007, p. 146)

A further explanation of each intervention is provided. 1) Make sure children have sufficient time for play. Children need a substantial, uninterrupted block of time to play. They should not be pulled out for other activities, be interrupted for teachers to insert academic concepts, or have the direction of play changed. 2) Provide ideas for themes that extend children's experiences and enrich the play. Teachers can provide ideas for pretend play through field trips, community volunteers, and fiction and non-fiction books. 3) Choose appropriate props and toys. Play areas should be stocked with toys and props that have multiple functions as well with materials for children to make their own props. 4) Help children plan their play. Since mature play involves planning and acting out multiple scenarios, it is concluded that children be given time immediately before play to talk to one another and plan what they will do together. 5) Monitor the progress of play. Teachers should watch children at play and find ways to make suggestions in order to further their skills, being careful not to be too intrusive. 6) Coach children who may need help. Some students may need help joining a group, accepting new ideas, or including new partners. 7) Suggest or model how themes can be woven together. Teachers can read and act out stories with variations of a theme, and encourage students by asking *what if* questions. 8) Model appropriate ways to solve disputes.

Teachers can help students by modeling ways of talking or providing external mediators to solve disagreements that occur during pretend play. 9) Encourage children to mentor each other in play. Children are more effective mentors for play than teachers (Bodrova & Leong, 2007).

Play plans integrate literacy development during pretend play. An important aspect of mature play, according to Bodrova and Leong (2007), is planning play. Play plans also develop higher levels of play. The Tools of the Mind project developed by Bodrova and Leong (2001) demonstrated the use of play plans in a kindergarten classroom. As described above, teachers and children worked together to develop play plans at the beginning of the school year, following a progression that began with students dictating a message to the teacher and ended with children writing their own plans. Scaffolded Writing was used to develop play plans in the given kindergarten classroom. A progression of literacy-based skills was used until students were able to develop and read a play plan independently. The implementation of play plans in kindergarten enables children to plan and develop mature pretend play scenarios while using literacy skills. Teachers also have the opportunity to scaffold a student's work, identifying teachable moments.

Interactive play spaces. As a part of a study more thoroughly described above, Fleer (2011) examined imagination as it relates to play and learning. The kindergarten teacher involved in this study deliberately set up small interactive play spaces each week. The play spaces included figurines, natural objects, and books or charts related to a chosen theme. "These imaginary situations supported by books and tools deliberately bring imagination and reality together so that children can play with objects and ideas,

creating new meanings" (Fleer, 2011). Children appeared to enjoy the imaginary situation they were in during pretend play with their own real-world experiences. One play space that was set up was based on insects. During pretend play, children investigated their environment for insects and built understanding about their natural environment and the insects found within it. The imagination children engaged in during pretend play allowed them to understand reality. The findings of this study helped identify how pretend play can be a part of the kindergarten pedagogy.

Literacy play centers enhance literacy development. Educators need to motivate children to become active learners by providing play experiences that help them develop and collect their own knowledge. In pretend play, children act out roles that represent their own life experiences, assisting in their understanding of the real world (Saracho, 2001).

In a study more specifically described above, conducted by Saracho (2001), an eight week intervention was developed to help children use written language for their own purposes during play centers. By providing play centers that were enriched with literacy materials and tools, the study's focus was to observe what happened in literacy enriched play centers, which provided opportunities for children to create spoken or written language. Various centers can be organized to promote literacy and language development. The classroom environment included centers that promoted children's literacy development, such as library and writing centers, along with literacy-enriched play discipline centers, such as mathematics, block, manipulatives, and pretend play centers. Experiences in the centers were considered literacy-related when they contributed to the development of any mode of communication. Play plans were also

used in the classroom before children were allowed to participate in the play centers. Students were required to select their schema and props for their play in a specific area. Children's literacy behaviors became evident in all the literacy play centers observed in the study. A few of the literacy behaviors observed included following directions, interactions to develop vocabulary, sequencing of events, developing language, creating stories, and writing.

The previous section of the literature review discussed appropriate ways for teachers to integrate pretend play within their classrooms, while maintaining academic outcomes of students. Bodrova and Leong (2007) specified nine intervention strategies that teachers should implement to assist in children's play, developing strong, mature play. They indicated that although teachers have a strong role in play, they are urged to be careful not to interfere with or try to direct children's play. Another way to improve literacy development is by the use of play plans during literacy enriched play centers (Bodrova & Leong, 2001; Saracho, 2001).

This chapter has reviewed several research studies focused on the cognitive and academic benefits of pretend play. It has been noted that pretend play can benefit the development of self-regulation along with mathematics and literacy skills. The review has also identified ways that kindergarten teachers can integrate pretend play within their curriculum.

Chapter IV

Conclusion and Recommendations

The purpose of this review was to study the benefits of pretend play in the kindergarten environment. Based on my research questions, my goal was to understand more about the benefits of pretend play, in association with cognitive development and academic success for kindergarten-aged children. I was interested in knowing how pretend play might affect literacy and mathematics skills. The review discussed the cognitive benefits of pretend play, including self-regulation and how it is related to academic achievement of children. The review included information on the use of play centers and play plans related to literacy development and how the inclusion of play during mathematics instruction is beneficial to learning. It continued to discussion of teachers' roles in the environment and development of pretend play, and some ideas of how to best integrate pretend play while preserving students' academic achievement.

This chapter will provide a brief summary of each of the research studies and the findings. It will include my identification and synthesis of insights, recommendations for teachers' use of pretend play and further research, along with sharing my own teaching practices and future goals.

Conclusions

The first question reviewed asked about the effects pretend play has on the cognitive development of young children. Pretend play can engage many areas of the brain because of the various domains that are used during children's play. Cognitive strategies that are demonstrated during pretend play are joint planning, negotiation, problem solving, and goal seeking (Gmitrova & Gmirov, 2003). Higher cognitive

distancing was demonstrated through child-initiated pretend play than that of teacher-directed work lessons (Leseman et al., 2001). In fact, a study conducted by Fleer (2011) found that imagination during pretend play can be used to investigate the environment and understand reality.

Another cognitive advantage of using pretend play in the classroom was the ability to develop self-regulation skills during pretend play (Elias & Berk, 2002). In addition to developing self-regulation, a study by Blair and Razza (2007) also identified self-regulation to be related to academic achievement.

The second review question asked about the academic benefits of pretend play for kindergarten-aged children. The review studied research on literacy and mathematics development in young children. It was found that play centers can contribute to students' academic achievement when enriched with literacy materials (Saracho, 2001). The use of play centers contributed to children's literacy development in the areas of following directions, developing vocabulary and language, narrative language, sequencing, and creating stories (Saracho, 2001, Reynolds et al., 2011). The use of play plans before children engaged in pretend play also showed positive effects on kindergarten-aged children's literacy development (Bodrova & Leong, 2001). Scaffolded Writing was used to help children develop play plans, which describe their plan for play, along with the roles and props that would be used. Children who participated in the use of play plans significantly increased their number of words written, complexity of writing, correspondence of the written story, re-read, consistent use of writing conventions and more new words, along with more academic spelling and better phonemic awareness.

The question also led me to study the importance of teachers' roles in literacy development through play. Six teachers' roles were identified in order to create a play environment conductive to children's learning. The roles included: teachers' role as constituent, promoter of children's learning, monitor of children's learning, storyteller in the classroom, group discussion leader, and instructional guide (Saracho, 2004). The teacher's role of scaffolding to lead children to their zone of proximal development was also discussed (Korat et al., 2003).

The joint position statement written by NCTM and NAEYC (2002) identified play as a key source of providing mathematics education to children between the ages of three and six, suggesting ample time, materials, and support be provided to children to engage in play. It was revealed that children engaged in a considerable amount of mathematical activities during their free play time (Seo & Ginsburg, as cited in Clements, Sarama, & DiBiase, 2004).

The third and final research question asked how kindergarten teachers could integrate pretend play within their curriculum while maintaining student achievement outcomes. Nine important ways for teachers to intervene during pretend play in order to provide an environment for productive, mature play were identified in Chapter III (Bodrova & Leong, 2007). Bodrova and Leong (2007) also cautioned teachers to be mindful of their interactions with students during pretend play so the teacher does not interrupt or change the direction of students' play. Teachers should take time to observe their students at play and identify their ZPD in order to provide appropriate scaffolding and have a positive impact on play.

Teachers should also allow time for children to plan their play through the use of play plans using Scaffolded Writing (Bodrova & Leong, 2001). The use of interactive play spaces and literacy play centers also allow children to enhance their literacy development during pretend play (Fleer, 2011, Saracho, 2001).

Identification and Synthesis of Insights

As the education world begins to change to become more standards driven, it is important to maintain the important aspects of child development within our kindergarten curriculum. Chapter III reviewed the benefits provided by pretend play with kindergarten-aged children. As mentioned above, the benefits consist of both cognitive and academic development, including literacy and mathematics skills.

The key point that I gained from this review of literature is one that reassures my initial thoughts about the use of pretend play in classrooms. It is one that was stated in the position statement on developmentally appropriate practice from NAEYC. It states:

> Research shows that child-guided, teacher-supported play benefits children in many ways. When children play, they engage in many important tasks, such as developing and practicing newly acquired skills, using language, taking turns, making friends, and regulating emotions and behavior according to the demands of the situation. This is why play needs to be a significant part of the young child's day. (Copple & Bredekamp, 2009, p. 328)

Teachers often get caught up in the world of strict academic curriculum and fail to provide ample time for productive pretend play. It is important for teachers to remember the findings of this review of research when considering the implementation of pretend

play within their kindergarten curriculum. Teachers should note the cognitive and academic skills that are supported and demonstrated through the use of pretend play.

It is also important to note the way pretend play should be integrated into a kindergarten classroom and the roles teachers play to create a positive and productive pretend play environment. Children should be given ample time, materials, and support in the classroom for pretend play (Seo & Ginsburg, as cited in Clements, Sarama, & DiBiase, 2004). Teachers should also cautiously intervene with pretend play, by identifying students' ZPD and providing scaffolding to assist in their development through play (Bodrova & Leong, 2007).

Recommendations

While completing the review of research, it was difficult to find multiple studies directly related to pretend play in kindergarten. I believe that more research is needed in the areas of pretend play and kindergarten. Some of the research studies that were located provided information from students who were age five, which is kindergarten-aged, but rarely included kindergarten as a key term. With the current focus in education on academic achievement goals and what seems to be the diminishing of pretend play in kindergarten, it is particularly important for research to be available about the benefits of pretend play at the kindergarten level.

I also believe more specific research related to cognitive development in kindergarten-aged children would be beneficial. Many of the studies reviewed provided general information and were able to identify some direct skills that were related to cognitive development, but it may be helpful for research to provide more specific

cognitive abilities developed through pretend play. This might help illuminate the importance of pretend play to teachers, administrators, parents, and policy makers.

I strongly encourage teachers to think about the implementation of pretend play within their curriculum. I recommend teachers find the best way for them to implement the use of play within their classrooms, as I know not all classrooms can be the same. It is important for teachers to keep pretend play a priority so it can continue to be a part of the daily kindergarten schedule. Teachers should be encouraged to use pretend play as a bridge to developmentally appropriate literacy and mathematics learning. The use of play plans and adding literacy enriched materials to play centers can be a strong way to begin the use of play to assist academic achievement for students (Bodrova & Leong, 2001, Saracho, 2001).

Future Projects/Research

Throughout this review, research related to kindergarten-aged children was reviewed in order to determine the benefits pretend play provides for cognitive development and academic success at this age level. The third question of the literature review asked how teachers can integrate pretend play within their curriculum. I would like to implement some of these ideas in my own kindergarten classroom and determine what type of academic outcomes they would provide for my diverse population of students.

Educational Policies

A current education policy that needs attention is the move towards academic achievement at a young age. I suggest policy makers review their decisions and take a closer look at pretend play. As demonstrated in this review, pretend play can be used as a

method for teaching mathematics and literacy skills. Without policy makers' attention, pretend play may lack the ability to maintain its part in kindergarten curriculum. I recommended the policies guiding curriculum toward more academic work and assessments be revised to consider the valuable information found on pretend play through this review.

The findings of this review indicate that pretend play leads to academic success in young children. Pre-service teachers should be knowledgeable of this information as well. I recommend colleges and universities consider this information when determining course objectives for pre-service teachers. In order to maintain a play based curriculum in the future, teachers will need to know how and why pretend play is beneficial and they will need to know how to appropriately integrate pretend play in their classrooms.

Teacher Practices of Self and Others

After completing this review, I know it is important for me to continue to advocate for play to be a part of our daily kindergarten schedule. Parents should be informed of the necessity of pretend play so they understand the use in the curriculum. I want to be able to encourage my colleagues to use pretend play appropriately to identify students' ZPD and provide scaffolding to help them be successful. I understand that appropriate time and materials will be needed in order to achieve this goal. It will be necessary for my colleagues and me to work together to enable these practices to happen within our elementary school and curriculum. We will need to consider the three research questions that were answered by this review of research:

1. What effects does pretend play have on the cognitive development of young children?

2. What academic benefits does pretend play provide for kindergarten-aged children?
3. How can kindergarten teachers integrate pretend play into the curriculum in ways that support achievement outcomes?

Through this review I have provided a valuable source of information for kindergarten teachers who wish to advocate for pretend play within their curriculum. This is important to me because I feel a strong sense of urgency with this situation. I believe that pretend play has the potential to eventually be eliminated within our kindergarten curriculum without strong advocacy from parents, educators, and administrators.

By completing this review, I have learned that pretend play can provide benefits to kindergarten-aged children in the areas of cognitive development and academic achievement. I hope to continue my education in the field and on this particular topic to learn more about the benefits provided through pretend play. This topic will remain valuable to me because it is useful in my everyday career.

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