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# A Case Study of Young Children's Play

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Honor's Thesis

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Abstract

This paper explores the playtime of elementary students in two Northwest Arkansas schools. This paper examines the difference in the amount of play students are receiving from preschool to kindergarten. The research question is, "Are the types of and amounts of play in preschool and kindergarten settings appropriate to meet the developmental needs of young learners including cognitive, socio-emotional and physical development?" Data were collected through observations and teacher questionnaires. The results implied that the preschool setting was receiving the adequate time for the developmental types of play to take place, but the kindergarten setting was not receiving the adequate amounts of time for play.

## Introduction

It's easy to observe that innovation in almost every aspect of life, from technology to education, is ever increasing in our world today. Not all that long ago there were one-room schoolhouses with a single teacher instructing students of all ages. Looking back on our education system of the last hundred years, we can easily see how far we have come. We can only imagine what the future holds for the students of tomorrow. The evolution of education can be supported by the research and drive for going above and beyond, the fervor to improve learning, and the encouragement and passion to think outside the box. Hutchins stated, "The object of education is to prepare the young to educate themselves throughout their lives" (as cited in Reason Individualism Freedom Institute, 2008). Research shows that play is an integral part of that education. Throughout history, from Aristotle to Montessori, the masters of education have conveyed the overlaying theme of "play" as a vital key to a child's development. With this simple yet complex act being so crucial, one can only assume that it is the core to curriculum in the classroom for young children. Unfortunately, this is not the case in many classrooms. "Teaching to the test" has become the theme of many lessons and consequently an increasing amount of classroom time spent where students are expected to sit and be instructed on every move. Elkind (2007, p. ix) believes that, "Children's play-their inborn disposition for curiosity, imagination, and fantasy- is being silenced in the high-tech, commercialized world we have created." Elkind declares that children have lost twelve hours of free time a week in the past two decades, including eight hours of outdoor and unstructured play (Elkind, 2007, p. ix). The question we must address, when caught up in staying ahead of the educational rat race, is when should we initiate the next level of development and growth? Perhaps we are asking too much of

our younger children to keep up with the ever escalating educational demands. One solution we may need is to take a step back and review the fundamentals of development and remind ourselves of the importance of play.

### **Statement of the Problem**

In Northwest Arkansas there are 26 different elementary schools. There is a significant difference in the amount of play their elementary students, from preschool to kindergarten, are participating in on a daily basis. A preschool classroom from a large school district is required to have approximately two hours and twenty minutes of “free choice centers” and one hour of outdoor “gross motor” play each day, according to the Early Childhood Environment Rating Scale (Harms, Clifford, & Cryer, 2005). In a neighboring school district, a kindergarten classroom is only required to have twenty minutes of recess or outdoor play a day. Students ranging from three to four years of age are experiencing a far greater amount of play at school compared to grade school children. Within the summer months of vacation, young students leaving preschool and entering kindergarten must change everything they know about “play at school” and adapt to the time decrease when they resume school in the fall. The play deficit is altering our students physically, mentally, and emotionally according to Elkind. Elkind (2007) reported at the first ever Surgeon General’s Conference on Children’s Mental Health in 2000 that “growing numbers of children are suffering needlessly because their emotional, behavioral and developmental needs are not being met by the very institution that were explicitly created to take care of them” (p. x). The percentage of the child population affected is over 20 percent (Elkind, 2007, p. x). According to the U.S. Department of State, a child does not become an adult until the age of eighteen (state.gov, 2012). Respectively, we should not be seeing this depletion of



play so early in childhood. With the never-ending research displayed on how developmentally beneficial “play” can be for a child, we see nothing but a shortage of the most basic child action as students get older and change grade levels. With content increasing at each educational level, teachers must make sacrifices to what will be included in a day of teaching. Without fail, play is the first classroom activity to be let go.

### **Research Question**

Are the types and amount of play in preschool and kindergarten settings appropriate to meet the developmental needs of young learners including cognitive, socio-emotional and physical development?

### **Purpose of Study**

The purpose of this thesis is to examine the amount and types of play in preschool and kindergarten classrooms in two school districts in Northwest Arkansas.

### **Review of Literature**

It is such a simple verb. To play. /play/ *vb* 1: engage in recreation 2: move or toy with aimlessly 3: perform music 4: free movement 5: act in a drama. This is the definition of *play* according to Webster's Dictionary. “Work consists of whatever a body is *obligated* to do...play consists of whatever a body is not obligated to do” as defined by Mark Twain (Chudacoff, 2007, p. 1). However, the International Encyclopedia of the Social and Behavioral Sciences admits that, “No one definition of play is necessary or sufficient...a controversial and unresolved topic”(as cited in Chudacoff, 2007, p.1). For the purpose of this thesis, play will refer to the spontaneous, joyous, and functional activity of children. What is it that makes this effortless act

so beneficial for young and developing students?

### **Past Experts**

From the beginning of time, all over the world, the revolutionists of education and the forefathers and mothers of teaching have deemed the positive affects and importance of “play” as a necessity in the healthy development of young children. Many past noted scholars (e.g. Plato, Socrates, Dewey, Montessori, Piaget, & Weininger) have agreed with the merit and significance of play. Vygotsky thought that in the preschool years, play is the leading source of development” (Parten, 1933). Locke (1693) thought that by making learning a recreation, students would develop a desire for it. The belief in play was best summarized by Froebel, “Play is the highest expression of human development in childhood for it alone is the free expression of what is in a child’s soul (Froebel Web, 1998-2009, papa. 2).”

### **Present Experts**

The noted scholars of today (e.g. Elkind, Chudacoff, Linn, Hoorn, Nourot, Scales, Alward, & Pearce) concur with those of the past. “Learning teaches us what is known, play makes it possible for new things to be learned” (Elkind, 2007, p.1). Pearce (2012) suggests that the only way to uncover the highest intelligence of mankind is through play. Elkind (2007) suggests, “There are many concepts and skills that can only be learned through play” (p.1). Clements (2004) states, “Play exists at the very heart of childhood. It is the fundamental means to which children learn about themselves, their family members, their local communities, and the world around them” NAEYC (2009) suggests that, “Teachers organize the daily and weekly schedule to provide children with extended blocks of time in which to engage in sustained play, investigation, exploration, and interaction.” (p.3). NAEYC (2009) believe that early childhood

programs should furnish materials and sustained periods of time that allow children to learn through playful activities. Contemporary educational experts believe that education through play or play for its own sake is at the core of all learning.

Today in our society *play* is often ridiculed. Some administrators, teachers and parents see play as a roadblock that interferes with curriculum and focus on subject matter. "Children's lack of power in relation to adults has led to their play being curtailed when adults have disapproved of it (Brehony, 2008. Para. 1)." One could argue that play in these difficult economic times should be put on the back burner. Educators could question finding the time to play when we are charged with having to prepare our students for their futures. This panic to prepare students is ongoing as we strive to help them face a world that is uncertain. Commonly seen today, the national and state assessment requirements for students are elevating in number and starting at younger ages. According to the Arkansas Department of Education (2009), "Norm-referenced testing, presently the Stanford Achievement Test, Tenth Edition (SAT-10), is administered in grades K-2 and grade 9 in reading comprehension and math problem solving. The Qualls Early Learning Inventory (QELI) is administered at the beginning of the school year to all kindergarten students and to any first grade student who did not attend Kindergarten." On all Arkansas Benchmark Exams in 2010, more than 60 percent of students at each tested grade level scored proficient or above (Arkanased.org, 2009). In a June 2007 editorial, U.S. Secretary of Education Margaret Spellings wrote, "States that have shown true leadership, such as Arkansas and Massachusetts, can inspire others to act." These finding are impressive reflections on a state that, "has historically been one of the lowest-performing states academically (Holley, 2012)." However, as the testing demands increase, we must look deeper into what we are analyzing. Do

these reports justify the reason our students have behavioral, learning and health problems?

Furthermore the tests we are administering do not gauge our student's exploration, discovery and wonder. They do not rate the degree of happiness or love for learning. What is a test if it only produces a number with no significant data on how are children are doing, mentally, physically and emotionally? Should educators be paying less attention to testing and more on play?

The majority of research argues that there is not enough play happening at school for young learners. Government-funded research conducted in the United Kingdom by the Economic and Social Research Council concluded that "imaginative play" including "role play" is imperative to the development of students' imaginations and social situations (Womack, 2005). The council's call to action was the advice to expand outdoor play spaces.

According to the American Academy of Pediatrics, "Play is essential to development because it contributes to the cognitive, physical, social, and emotional well-being of children and youth" (Ginsberg, 2007, p.182).

### **Cognitive Play**

Play has an immense benefit on a student's cognitive well-being. All forms of play use cognitive skills in some form. Cognitive play relates to play that includes reasoning and thinking processes. National Association for the Education of Young Children states, "Play is an important vehicle for developing self-regulation as well as for promoting language, cognition, and social competence" (NAEYC, 2009, p. 14). Cognitive play activities include, but are not limited to, board games, puzzles, memory games, discovery boxes, sand and water play, dramatic play, woodworking and writing opportunities. "Play encourages the development of the cognitive map" (Weininger, 2001). Educationists (e.g. Vygotsky, Piaget, Gardiner) believe

when students are freely playing, expressing themselves, and choosing how and what they would like to play, then they are fully engaged and exercising their minds. According to Diamond, play is an essential cognitive skill referred to as “executive function (Spiegel, 2008).” She believes that the most important element of executive function is self-regulation. Self-regulation, in her terms is, “the ability for kids to control their emotions and behavior, resist impulse, and exert self-control and discipline.” Other fundamentals of executive function include cognitive flexibility and working memory. “Poor executive function is associated with high dropout rates, drug use and crime. In fact, good executive function is a better predictor of success in school than a child's IQ (Spiegel, 2008)”. Diamond states, "I think a lot of kids get diagnosed with ADHD now, not all but many just because they never learned how to exercise self-control, self-regulation, the executive functions early." Diamond affirms that there may be a link between children's reduced self-regulation skills and the number of children being diagnosed with Attention Deficit Hyperactivity Disorder (Spiegel, 2008). Elkind (2007, p. x) states, “We have more than 2 million children on Ritalin and other ADHD (Attention Deficit Hyperactivity Disorder) medications”.

### **Socio-Emotional Play**

When students play, they are experimenting with the social and emotional roles of life. Socio-emotional play benefits include sharing responsibility, taking turns and creative problem solving. According to NAEYC (2009), “High-level dramatic play produces documented cognitive, social, and emotional benefits” (p. 15). The organization believes that, “Active scaffolding of imaginative play is needed in early childhood settings if children are to develop the sustained, mature dramatic play that contributes significantly to their self-regulation and other cognitive,

linguistic, social, and emotional benefits”(NAEYC, 2009, p.15). When a child ““pretends to be different characters, he has the experience of "walking in someone else's shoes," which helps teach the important moral development skill of empathy” according to Church (2012).

### **Physical Play**

NAEYC (2009) states that, “Children of all ages love to play, and it gives them opportunities to develop physical competence and enjoyment of the outdoors, understand and make sense of their world, interact with others, express and control emotions, develop their symbolic and problem-solving abilities, and practice emerging skills.” Physical play is when student are actively engaging their bodies in movement. “There is also concern that schools are curtailing valuable experiences such as problem solving, rich play, collaboration with peers, opportunities for emotional and social development, outdoor/physical activity, and the arts” (NAEYC, 2009, p. 4). The lack of play in our schools is taking a toll on our students physically and contributing to a nationwide problem of childhood obesity. According to Brosman (2001), childhood obesity has tripled in the last thirty years. This vast increase in students’ weight is likely to cause life-altering diseases such as type-two diabetes, high cholesterol and high blood pressure. The National Childhood Obesity Foundation reported that thirty percent of children in the U.S. are obese (2012). In Arkansas there is a similar correlation to national findings.

The state of Arkansas created the Arkansas Child Health Advisory Committee to propose physical activity and nutrition policy recommendations to the State Board of Health and the State Board of Education. “Children and adolescents should do 60 minutes (1 hour) or more of physical activity each day” declare the Centers for Disease Control and Prevention (2011). The U.S. Department of Health and Human Services (2012), states that children who have

physical activity will have reduced symptoms of anxiety and depression.

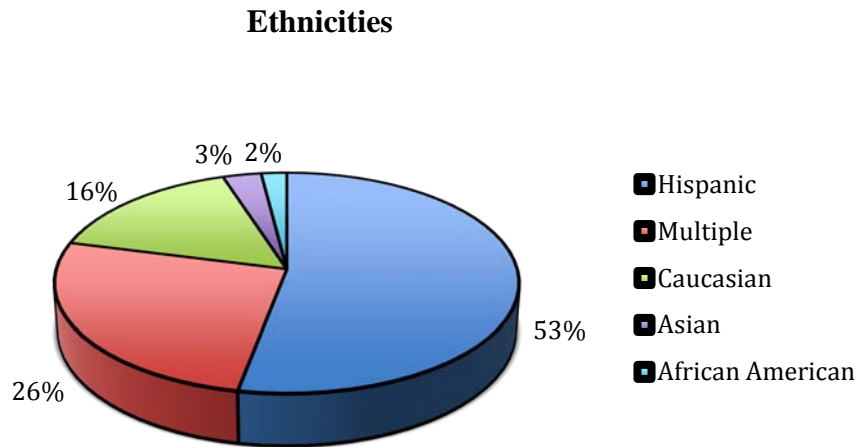
**Methodology**

**District Setting**

The data for the study were collected in two Northwest Arkansas elementary schools in two different school districts. The schools were approximately 11 miles apart from each other. The two schools will be referred to as School A and School B.

**School A Setting**

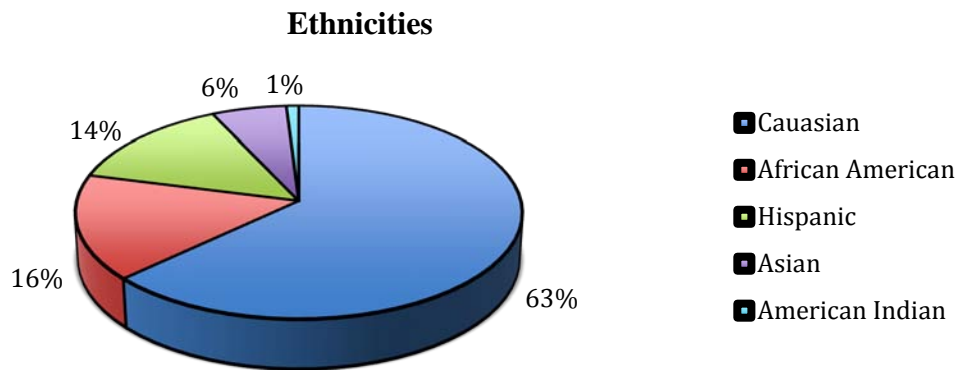
School A had approximately 582 students and 34 teachers. The student ethnicities included 16% Caucasian, 2% African American, 53% Hispanic, 3% Asian and 26% Multiple (see Figure 1.). Students eligible for free or reduced lunch were 90%. School A provided a preschool classroom of 20 students and one teacher for observation.



*Figure 1.* Ethnicity Percentages School A.

**School B Setting**

School B had approximately 632 students and 39 teachers. The student ethnicities included 63% Caucasian, 16% African American, 14% Hispanic, 6% Asian, and 1% American Indian (see Figure 2). Students eligible for free or reduced lunch were 41%. School B provided a kindergarten classroom of 20 students and one teacher for observation.



*Figure 2.* Ethnicity Percentages School B.

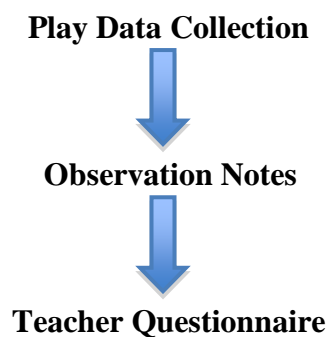
**Confidentiality**

Permission to conduct this study was granted from the University of Arkansas Instructional Review Board (see Appendix A). An Informed Consent (see Appendix B) was obtained from the participating teachers that explained the purpose and procedures of the study. It also explained that participation was completely voluntary and that there would be no reward or penalty for participating. Confidentiality was maintained and assured by the researcher through the establishment of coded names labeled by letters A and B (e.g. District A, School B).



### **Instrument**

Data were collected in two ways during this case study of children's play. The main collection instrument was an observation form (see Appendix C). The observation form was used to record the amount and type of play that was witnessed. The second collection instrument was a Teacher Questionnaire (see Appendix D) that was completed independently by the teacher. The intent of the questionnaire was to allow teachers to share their views and opinions regarding young children's play. The questionnaire questions included, "What amount of play do you believe pre/school kindergarten (3-5yrs) students should be experiencing at school, what type of play do you believe is most beneficial for 3-5 year olds? Please list several types that your students experience during the school day, in what ways do you believe playing is contributing to your student's development, do you believe that playing is a distraction to this age level or beneficial, do you believe that students at this age level should be experiencing more or less playtime?" Data were analyzed through thick description of the types of play observed in each classroom and the responses to the questionnaire questions (see Figure 4.) were to determine themes and draw conclusions. All identifying information of classrooms and teachers are coded so that their identities will be protected.



*Figure 3.* Data Instruments.

## **Procedure**

Participating school officials were asked permission to observe students in their regular daily routines. Students and teachers were not asked to alter their schedules in anyway. During the selected times, data involving play was recorded on the observation form. The participating schools and classrooms were chosen at random. Observation times were set based on daily class schedule according to the teacher's classroom schedules (see Appendix F and G). Permission for observation in the preschool classroom was given for the times of 8:00am-10:00am, 12:30pm-2:30pm, 1:00pm- 3:00pm, and 1:30pm- 3:00pm. Observation times in the kindergarten classroom were 8:00am- 10:00am, 11:00am- 1:00pm, 12:10pm- 2:10pm, and 1:30- 3:00pm. Days and times for observations were chosen at random. There were a total of 18 observation days recorded. Nine days of observations took place in classroom A and nine days took place in classroom B. The data collection routine consisted of arriving at the participating school, entering the classroom, and observing the students from a distance in the classroom or playground. Information collected on the data form included the date, start time, stop time, teacher, grade level, subject, and observer. The data form included several types of play that could be observed. The types of play were recess/outdoor, dramatic, arts/crafts, centers, and games. Additional information could be recorded for any other child-directed play. Data were also formulated with drawings of the designated play areas. Figures were noted prior to observations for the amounts of play that were required by the district or state for a reference guide. Data were recorded when students participated in "free play" or when they were able to choose what they would like to do. An open-ended questionnaire was given to teachers to gain their perspectives regarding play.

## **Results**

Results for this study are organized by participating schools. Results compare the required amount of time each school should be allowing students for “free play”, according to the district and state requirements, with the actual amount being observed from the researcher (see Figure 4). Themes acquired from the teacher questionnaire are organized by school (see Figure 5).

### **Results School A**

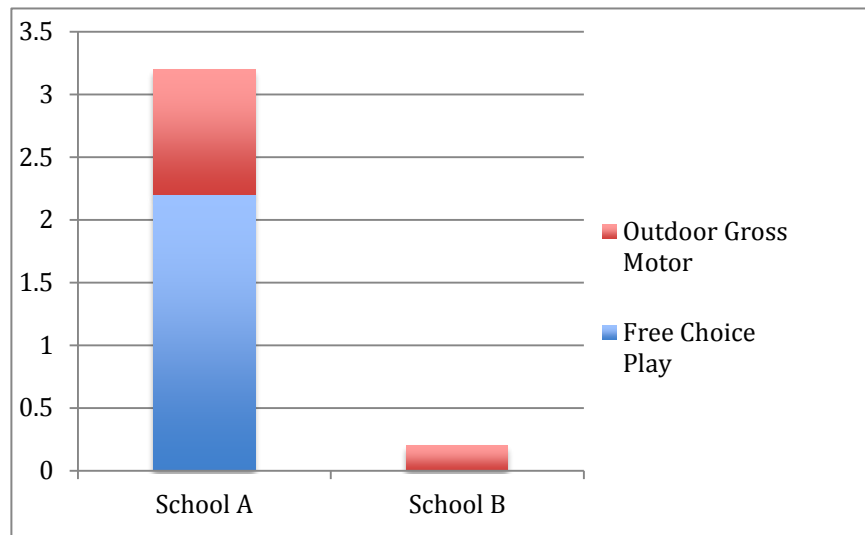
The case study results provide data collected during this study to answer the research question, “Are the types and amount in preschool and kindergarten settings appropriate to meet the developmental needs of young learners including cognitive, socio-emotional and physical development. School A was observed as having two hours and twenty minutes during each observation time designated to free choice centers and one hour a day was observed for outdoor gross motor play. Dramatic play, arts/crafts and games were all observed as play centers. The teacher questionnaire resulted in the opinions and rationale for how play was accounted for in School A. School A’s teacher wrote that the amount of play young children should be experiencing at school should be, “Outdoor play, at least one hour daily.” The teacher expressed that play was contributing to the students development by, “Building confidence, promoting social/emotional learning, self help attribute/complex, and thinking skills. This teacher believed play is “beneficial” rather than a distraction at this age level.

### **Results School B**

School B was required by the state of Arkansas to have twenty minutes of recess a day. The results for School B included this recommended amount. The recommended types of play

observed in School B included dramatic play, arts/crafts and games. The written voluntary teacher questionnaire resulted in the opinions and rationale behind how play was accounted for in School B. School B’s teacher believed that the amount of play a student should participate in depends on the student’s “developmental and emotional level.” The teacher thought that some classes only need, “free exploration time for a month and others need it for several months.” She stated, “The younger the child is the more free exploration that should be experienced.” Oral development, spatial relationships, creativity, and fine and gross motor control were all answers teacher believed were examples of play that were most beneficial.

**Amounts of play**



*Figure 4.* Required and Observed Time Amounts For Outdoor Gross Motor and Free Choice Play For School A and School B.

**Teacher questionnaire analysis**

Sample Questionnaire Question	Teacher Verbatim Examples	Theme
<i>What amount of play do you believe preschool/kindergarten (3-5yrs) students should be experiencing at school?</i>	<p>-“Outdoor play- at least 1 hour daily”</p> <p>-“Play depends on their development level and emotional development. I am unable to give you an exact amount of time due to the fact that each child is different ”</p>	Teachers recognized the need for play
<i>What type of play do you believe is most beneficial for 3-5 year olds? Please list several types that your students experience during the school day.</i>	<p>-“Dramatic play, math, science, art, and fine motor.”</p> <p>-“Play that allows the child to be creative and build and/or create things allowing for continued development of spatial relationships and develops fine and gross motor control. ”</p>	
<i>Do you believe that students of this age level should be experiencing more or less playtime?</i>	<p>-“More- concrete, hands on experience through play will always promote learning.”</p> <p>-“Because each school/daycare/preschool program is different I am unable to answer this question.”</p>	

Figure 5. Analysis of Themes in Teacher Questionnaire.

## **Discussion**

### **Overview of Results**

The case study results answer the research question of, "Are the types and amount of play in preschool and kindergarten settings appropriate to meet the developmental needs of young learners including cognitive, socio-emotional and physical development?" The results suggest that the participating schools were abiding by the district and state required amounts of play. The preschool, School A, resulted in having the required two hours and 20 minutes of time for play along with the recommended types of play observed in their classroom. The teacher questionnaire also suggested that the teacher is aware of the developmentally appropriate types of play and suggested that there needs to be more time for play. The kindergarten, School B, resulted in having the required 20 minutes of recess, but was not observed having the recommended types of developmental play. The teacher questionnaire suggested that the teacher was aware of the benefits of play. However, the teacher believed that play depends on the setting and individual child. The research does not set apart different school settings or students. Rather play is seen as a universal action.

### **Conclusions**

Based on the results of the present study, it appears that play is a well-supported component of education in the studied schools. Quantitatively, School A and School B were on par with the state-required amounts of playtime. However, feedback from both teachers suggests additional playtime would be beneficial to their students. This belief is supported by leading education experts that encourage the amount of required playtime to be increased (Elkind 2007). If America is to remain on the forefront of innovation, it is critical that our educational system

embraces the beliefs and practices that foster creativity, self-regulation, and cognitive exploration during childhood—with playtime being the key.

### **Limitations**

As with any study, there were factors over which the researcher had no control, which may have affected the results of this study. The factors included the length of the study, the time of year the study was conducted, the amount of participants; districts, schools, teachers, students, and schools of different settings (e.g. Montessori, Reggio, Waldorf) may subscribe to various approaches that would promote more or less play. The length of the case study was over several months. If it had been conducted over one to two years results may have varied. The study was held at the beginning of a school year, results might have been impacted if it had been held at different times during the school year. The study included two school districts, two schools, two classrooms, two teachers and 20 students. If the study had more participants over several schools and districts the results may have varied. Investigating the developmental stages of students who attend different elementary settings may have been beneficial to the results. The teacher, outside of classroom time, completed the teacher questionnaire independently. If the researcher had conducted an oral interview with the classroom teacher the results may have been different and may have impacted the results of this study. It is possible that these limitations affected the results of this study.

### **Implications**

These results imply that although the teachers observed did follow the state guidelines for the required amounts of play for that grade level, it may not be enough time for the developmentally appropriate types of play that are essential for the growth and success of young

children. The results also imply that the teachers observed may not be able to implement the amount of play they would wish or that they believe would be appropriate because of school policies.

### **Recommendations**

Based on the results of the present study, it is recommended that more play be included in the daily schedule of kindergarten classroom. The playtime for the preschool was observed having a sufficient amount of time and types of play. The kindergarten classroom was observed as not having the adequate amount of time for the developmental types of play to take place. This could be because teachers may not be aware of the importance of playtime. Teachers might need more opportunities to grow professionally by attending conferences, taking courses, and reading research material that will help them learn to incorporate play in their lesson plans. Even teachers at higher grade levels than the ones examined in this study, might need to be reminded of the benefits of play for all ages of students. This study looked at the amount and types of play of early childhood students and addressed the research question, "Are the types and amount of play in preschool and kindergarten settings appropriate to meet the developmental needs of young learners including cognitive, socio-emotional and physical development?" The study found that the amount of time students are being given daily is not sufficient enough to include all the recommended types of play to fulfill all developmental areas.



### References

- Arkansas Department of Education. (2009). Retrieved from <http://arkansased.org/>
- Brehony, K. J. (2008). Theories of play. *Encyclopedia of Children and Childhood in History and Society*. Retrieved from <http://www.faqs.org/childhood/Th-W/Theories-of-Play.html>
- Brosman, T. (2001). Schools contribute to childhood obesity. *Natural News*. Retrieved from [http://www.naturalnews.com/033817\\_childhood\\_obesity\\_schools.html](http://www.naturalnews.com/033817_childhood_obesity_schools.html)
- Brown, S. (2009). *Play: How it shapes the brain, opens the imagination, and invigorates the soul*. New York, New York: Penguin Books.
- Centers for Disease Control and Prevention. (2011).
- Clements, R. L. (2004). *The child's right to play: A global approach*. West Port, CT: Praeger Publishers.
- Chudacoff, H. P. (2007). *Children at play: An American history*. New York, New York: New York University Press.
- Church, E. B. (2012). The importance of play. *Scholastic*. Retrieved from <http://www.scholastic.com/browse/article.jsp?id=10175?iframe=true&width=100%&height=100%>
- Dewey, J. (1978). *How we think. The Middle Works*. Southern Illinois University Press.
- Elkind, D. (2001). *The hurried child: Growing up too fast too soon*. Cambridge, MA: Perseus Publishing.
- Elkind, D. (2007). *The power of play: How spontaneous, imaginative activities lead to happier, healthier children*. Cambridge, MA: Da Capo Lifelong Books Group.
- Froebel, F. (1885). *The Education of Man*. (Translated by Hailmann, W.N.) New York, London,

D. Appleton Century.

Froebel Web. (1998-2009). Friedrich Froebel created Kindergarten. Retrieved from  
<http://www.froebelweb.org/>

Ginsburg, K. R. (2007). The importance of play in promoting healthy child development and maintaining strong parent-child bonds. *Pediatrics*, 119 (1), 182-191.

Harms, T., Clifford. R. M., Cryer. (2004). *Early childhood environment rating scale*. New York, NY: Teachers College Press.

Holley, M. J. (2012). Education reform. *The Encyclopedia of Arkansas History & Culture*. Retrieved from

<http://encyclopediaofarkansas.net/encyclopedia/entrydetail.aspx?entryID=2164>

Hoorn, V.J., Nourot, P.M., Scales. B., & Alward. K.R. (2011). *Play at the center of the curriculum*. Boston, MA: Pearson.

Linn, S. (2008). *The case for make believe: Saving play in a commercialized world*. New York, New York: The New Press.

Locke, John. 1989 [1693]. *Some Thoughts Concerning Education*, ed. J. W. Yolton. Oxford, UK: Clarendon Press; Oxford University Press.

Montessori, M. (1964). *The Advanced Montessori Method*. Cambridge, MA: R. Bentley.

National Association for the Education of Young Children. Developmentally Appropriate Practice in Early Childhood Programs Serving Children from Birth through age 8 (2009).

National Childhood Obesity Foundation. (2012).

Parten, M. (1933). Social play among preschool children. *Journal of Abnormal and Social Psychology*, 28, 136-147.

Pearce, J. C. (2012) *The Strong*. Retrieved from <http://www.thestrong.org/about-play/play-quotes>

Piaget, J. (1999). *Play, Dreams and Imitation in Childhood*. London: Routledge.

Play. 2011. In *Merriam-Webster.com*. Retrieved April 8, 2011, from <http://www.merriam-webster.com/dictionary/play>

Reason Individualism Freedom Institute. (2008).

Saunders, T. J., & Brisson, L. (2000). Bibliography on Plato's Laws. Sankt Augustin: Academia.

Spiegel, A. (2008). Creative play makes for kids in control. *National Public Radio*. Retrieved from <http://www.npr.org/templates/story/story.php?storyId=76838288>

U.S. Department of Health and Human Services. (2012).

U.S. Department of State. (2012).

Weininger, O. (2001). Play and the education of the young child. *The Ontario Institute for Studies in Education*. 99 (2), 127-135.

Womack, S. (2005). Too much learning and not enough play: 'Stunts children's development'. *The Telegraph*. Retrieved from <http://www.telegraph.co.uk/news/uknews/1497905/Too-much-learning-and-not-enough-play-stunts-childrens-development.html>

## Appendix A



Office of Research Compliance  
Institutional Review Board

March 28, 2012

## MEMORANDUM

TO: Emily Myers  
Marta Collier

FROM: Ro Windwalker  
IRB Coordinator

RE: New Protocol Approval

IRB Protocol #: 12-03-563

Protocol Title: *A Case Study on the Actual Amounts of Time Students Pre-K to Kindergarten Are Playing at School on a Daily Basis, Compared to the Recommended Time Amounts of Play for Students*

Approved Project Period: Start Date: 03/28/2012, Expiration Date: 03/27/2013

Your protocol has been approved by the IRB. Protocols are approved for a maximum period of one year. If you wish to continue the project past the approved project period (see above), you must submit a request, using the form *Continuing Review for IRB Approved Projects*, prior to the expiration date. This form is available from the IRB Coordinator or on the Research Compliance website (<http://vpred.uark.edu/210.php>). As a courtesy, you will be sent a reminder two months in advance of that date. However, failure to receive a reminder does not negate your obligation to make the request in sufficient time for review and approval. Federal regulations prohibit retroactive approval of continuation. Failure to receive approval to continue the project prior to the expiration date will result in Termination of the protocol approval. The IRB Coordinator can give you guidance on submission times.

**This protocol has been approved for 42 participants.** If you wish to make *any* modifications in the approved protocol, including enrolling more than this number, you must seek approval *prior* to implementing those changes. All modifications should be requested in writing (email is acceptable) and must provide sufficient detail to assess the impact of the change.

If you have questions or need any assistance from the IRB, please contact me at 210 Administration Building, 5-2208, or [irb@uark.edu](mailto:irb@uark.edu).

## Appendix B

## INFORMED CONSENT

*Title:* A Case Study of Young Children's Play

*Researcher:*

Emily Myers, B.S.E. student  
 Marta Collier, Ph.D., Faculty Advisor  
 University of Arkansas  
 College of Education and Health Professions  
 Department of Curriculum and Instruction  
 203 PLAH  
 Fayetteville, AR 72701-1201  
 479-575-5498

*Administrator:*

Ro Windwalker, Compliance Officer  
 Research and Sponsored Programs  
 Research Compliance  
 University of Arkansas  
 210 Administration Building  
 Fayetteville, AR 72701  
 (479) 575-2208  
 irb@uark.edu

*Description:* The present study is an honors project designed to examine the amount of time preschool and kindergarten students are playing while at school. The study does not require any other participation on your part, other than the voluntary teacher interview form. The study does not require any participation from your students. I will be observing the types and amount of play that takes place during the school day. I would need a schedule of times and dates that work best for you for my observations. I will need to be able to see the classroom at various times of the school day in 1-2 hour observations.

*Risks and Benefits:* There are no risks associated with this study, other than those associated with regular classroom instruction, anticipated in this research. The potential benefits include improving the development of students through play. The study may also contribute to the knowledge of the effects and or importance of play for preschool and kindergarten students.

*Voluntary Participation:* Your participation in this research study is completely voluntary.

*Confidentiality:* Confidentiality will be established and maintained using pseudonyms for any names recorded during observations and interviews. All information collected will be kept confidential to the extent allowed by law and University policy.

*Right to Withdraw:* If you decide to participate in this program, but at any time and for any reason change your mind, you may withdraw your consent. There would be no negative consequences for this decision.

*Informed Consent:* I, \_\_\_\_\_, have read the description of this study.  
 (Please print name)

I understand the purpose of the project, the procedures to be used, the potential risks and benefits, how confidentiality will be established and maintained, and the option to withdraw.

My signature below indicates that I freely agree to participation in experimental study and that I have received a copy of this agreement from the researcher.

\_\_\_\_\_  
 Teacher Signature

\_\_\_\_\_  
 Date

Appendix C

# Playtime in School

## PLAYTIME OBSERVATION

Data collection form

Date: \_\_\_\_\_ Start Time: \_\_\_\_\_ Stop Time: \_\_\_\_\_  
 Teacher: \_\_\_\_\_  
 Grade Level (circle one): Pre-K Kindergarten  
 Subject: \_\_\_\_\_  
 Observer: \_\_\_\_\_

**Prior to Observation**  
 Please provide the amount of time designated for play on the day of the observation, **according to the teacher**, in the following areas that might include but are not limited to:

Recess/Outdoor play: \_\_\_\_\_  
 Dramatic play area: \_\_\_\_\_  
 Arts/Crafts: \_\_\_\_\_  
 Centers: \_\_\_\_\_  
 Games: \_\_\_\_\_

**Playtime Observation**  
 Please provide the amount of time you observed students playing in following areas that might include but are not limited to. Please include comments.

Recess/Outdoor play: \_\_\_\_\_  
 Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Dramatic play area: \_\_\_\_\_  
 Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Arts/Crafts: \_\_\_\_\_  
 Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Centers: \_\_\_\_\_  
 Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Games: \_\_\_\_\_  
 Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Please record detailed observations of indoor/outdoor play that does **not** include any educational instruction and is child-directed:  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Classroom Play Areas**  
 Please provide a drawing of the classroom and playground (if applicable) along with the designated areas where play was observed:

**Appendix D**

Play  
Teacher Questionnaire

Date: \_\_\_\_\_ Time: \_\_\_\_\_  
Teacher: \_\_\_\_\_ School: \_\_\_\_\_  
Interviewer: \_\_\_\_\_

**Question 1: What amount of *play* do you believe preschool/kindergarten (3-5yrs) students should be experiencing at school?**

Answer: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Question 2: What type of *play* do you believe is most beneficial for 3-5 year olds? Please list several types that your students experience during the school day.**

Answer: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Question 3: In what ways do you believe *playing* is contributing to your student's development?**

Answer: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Question 4: Do you believe that *playing* is a distraction to this age level or beneficial?**

Answer: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Question 5: Do you believe that students of this age level should be experiencing more or less *playtime*?**

Answer: \_\_\_\_\_  
\_\_\_\_\_

**Appendix E**



Rose/Class Schedule

7:50-8:15 Arrival, Wash, & Breakfast

8:15-8:25 Story time

8:30-8:45-Break-Lilly

8:45-9:00-Break -Iris

8:25-9:45 Learning Centers (1 hours 20 min)

9:45-9:55 Clean up/ Bathroom

10:00-10:35 Outside (35 min)

Lilly-Lunch 10:30-11:00

10:40-10:50 Wash Hands

10:50-11:15 Lunch Time

11:15-11:30 Bathroom

11:30-12:45 Rest Time

11:30-12:00-Iris-Lunch

12:50-1:50 Learning Centers (1 hour)

1:00-1:15-Break-Iris

1:50 Snack

2:05-2:40 Recess

2:45-Story/Get ready to go home



**Appendix F**

**FLOWER POWER ELEMENTARY SCHOOL**  
**Miss. Orchid Class Schedule**  
**2011-2012**

<b>Time</b>	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>
7:45 – 8:00	Pledge Rise and Shine Team Time	Pledge Rise and Shine Team Time	Pledge Rise and Shine Team Time	Pledge Rise and Shine Team Time	Pledge Rise and Shine Team Time
8:00 – 8:20	Familiar Reading Team Time	Familiar Reading Team Time	Familiar Reading Team Time	Familiar Reading Team Time	Familiar Reading Team Time
8:20 –8:35	Familiar Reading	Familiar Reading	Familiar Reading	Familiar Reading	Familiar Reading
8:35-9:00	Phonics	Phonics	Phonics	Phonics	Phonics
9:00-10:00	Work board Reading Groups	Work board Reading Groups	Work board Reading Groups	Work board Reading Groups	Work board Reading Groups
10:00-10:20	Shared Reading of Big Book	Shared Reading of Big Book	Shared Reading of Big Book	Shared Reading of Big Book	Shared Reading of Big Book
10:20-10:30	Snack	Snack	Snack	Snack	Snack
10:30-11:30	Encore	Encore	Encore	Encore	Encore
11:40-12:05	Lunch	Lunch	Lunch	Lunch	Lunch
12:05-12:20	Vocabulary Book	Vocabulary Book	Vocabulary Book	Vocabulary Book	Vocabulary Book
12:20-1:20	Whole /Small group Math	Whole /Small group Math	Whole /Small group Math	Whole /Small group Math	Whole /Small group Math
1:20-1:45	Science/Social Studies	Science/Social Studies	Science/Social Studies	Science/Social Studies	Science/Social Studies
1:45-2:00	Physical Activity	Physical Activity	Physical Activity	Physical Activity	Physical Activity
2:00-2:40	Writing	Writing	Writing	Writing	Writing
2:40-2:50	End of Day Meeting	End of Day Meeting	End of Day Meeting	End of Day Meeting	End of Day Meeting
2:50-3:00	Dismissal	Dismissal	Dismissal	Dismissal	Dismissal