EARLY CHILDHOOD EDUCATION

PRE-SERVICE TEACHERS'

CONCEPTS OF PLAY

By

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Abstract: The subject of play in the classroom is extremely controversial, especially since bigger emphases have been put on accountability and academics even in the very early grades. The steady removal of play from schools is controversial among members of the field of early childhood education, because play has generally been considered as an important vehicle for learning. However, there is little research regarding how changes in beliefs about play have been affecting pre-service teachers, who are instead immersed in theory, rather than practice. The purpose of this study was to extend the knowledge base on pre-service teachers' assumptions about, and perceptions of, play, in order to better inform teacher education practices as well as general understandings about how pre-existing mental frameworks affect teachers even before they enter a classroom. Sixty-five undergraduate pre-service teachers participated in this mixed-methods study. Their beliefs about adjectives describing play and activities constituting play were assessed. Results indicate that there are very few significant differences among cohorts, but beliefs about play are widely varied among pre-service teachers in the same teacher education program. This suggests that while paradigms regarding play may not differ among cohorts, they are as widely varied in the pre-service time period as researchers suggest they are throughout the field of early childhood education.

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CHAPTER I

INTRODUCTION

The subject of play in the classroom has been extremely controversial since the

2001 passage of No Child Left Behind (No Child Left Behind, 2001), when greater

emphases were put on accountability and academics (Cochran-Smith & Lytle, 2006; No

Child Left Behind, 2002; Ranz-Smith, 2007). The subsequent steady removal of play

from schools is controversial among members of the field of early childhood education

because play has generally been considered as an important vehicle for learning, and this

has been corroborated by findings of multiple researchers (e.g., Ailwood, 2003; Copple &

Bredekamp, 2009; Hirsh-Pasek & Golinkoff, 2008). However, there is a gap in the

research regarding how pre-service teachers are affected by this controversy. Play in

general has been looked at by researchers from various disciplines, from anthropologists

studying civilization evolvement to psychologists working to understand emotions

through the study of play (Ailwood, 2003; Fromberg, 2002; Hirsh-Pasek & Golinkoff,

2008). Yet, there is a lack of research regarding pre-service teachers' perceptions of play,

and the implications that these opinions may have on their classroom teaching. This

missing research is crucial to understanding how teacher education should approach play.

Sherwood and Reifel (2010), one of the few research teams to explore pre-service

teacher perceptions on play, recommended that more research be conducted with pre-service teachers to further examine the concept of play and the role of teacher assumptions. A research base currently exists about pre-service teachers' assumptions and perceptions, but there is a deficiency of specific research about how these may change over time, as well as how changes may affect views on play and its importance in learning. These gaps make it difficult to see the relationship between a pre-service teacher's assumptions, the teacher education program s/he is enrolled in, and his/her beliefs about play.

Purpose

This study attempts to extend the knowledge base on pre-service teachers' assumptions about and perceptions of play, in order to better inform teacher education practices and general understandings about pre-existing mental frameworks about play possessed by teachers even before they enter a classroom. This research is necessary to better understand how teacher education can affect teacher concepts and perceptions of education topics. In order to pursue this research, it is important to first identify and define key terms. These terms can have multiple meanings, so for the purposes of this study they are defined next.

Terms

A *pre-service teacher* is operationally defined in this study as any individual enrolled in a teacher education program who has not yet attained a teaching degree and is not yet a certified practicing teacher. An *assumption* is a statement accepted or supposed true without proof or demonstration (DeVinne, 1982). It is a belief that is completely internalized such that it cannot easily be changed (Catano, 2003). It should not be

confused with the word bias, which could potentially hold a negative connotation due to its close relation to the word prejudice (DeVinne, 1982). A *perception* is an insight, institution, or knowledge gained by taking notice of or observing (DeVinne). *Play*, on the other hand, is difficult to define. There are many varied definitions of play. For the purposes of this study, play is operationalized using the working definition of play from Fromberg (2002). According to this definition, play has six essential features. These are outlined below, along with a description of each one.

Play is voluntary (Fromberg, 2002). Children are generally very engaged in play, since they have chosen it and are focused on it. Additionally, the voluntary nature of play is related to the social context where it occurs (Fromberg, 2002). Play is also meaningful; imaginative play has roots in children's lives and experiences (Fromberg, 2002). By utilizing ideas drawn from personal experiences, children integrate themes from their own lives into their play (Fromberg, 2002). The third essential feature of play is that it is symbolic. Play gives children the opportunity to represent what they see in the world (Fromberg, 2002).

The fourth essential feature of play as outlined by Fromberg (2002) is that play is governed by rules. These rules can be explicit or implicit, and often emerge as the children move through their plan. Furthermore, play is fun; children are satisfied by play and enjoy doing it. Finally, play is episodic. In other words, it does not need a clear beginning, middle, and end in order for it to be effective.

The definition of play, especially, is one that has multiple meanings depending on the context and the goals of the person defining it. Play has been defined differently by key figures in early childhood education, whose extensive theories inform the present

study's framework. It is therefore important to review the theoretical foundations of play, as they inform the way pre-service teachers are taught about play and form their own opinions about it. Additionally, it is important to identify the key research question for this study and attempt to draw connections between this question and the theoretical foundations of and developmental perspectives regarding play.

Research Question

To what extent, if any, do pre-service teachers' beliefs (assumptions and perceptions) about children's play in the classroom vary among cohorts at different stages in a teacher education program? Specifically, do pre-service teachers' beliefs about adjectives that describe play differ among cohorts? Furthermore, do pre-service teachers' beliefs about activities that constitute play differ among cohorts?

CHAPTER II

REVIEW OF LITERATURE

Theoretical Foundations of Play

It is generally believed that the development of play behavior follows an inverted-U developmental course: it begins shortly after birth, peaks in childhood, declines steadily in adolescence, and almost completely disappears by adulthood (Pellegrini & Smith, 1998). Play is both a noun (stage of behavior) and a verb (relative activity), which means it can and has been studied in many different contexts and disciplines (history, philosophy, anthropology, psychology, etc.; Fromberg, 2002). It is important, however, to draw a distinction between exploration and play: exploration is an attempt to find out about new experiences, while play is an attempt to find out what can be done with these new experiences (Fromberg, 2002).

There are many specific theorists who have studied play in an educational context and have published findings and philosophies about how young children learn. Three of these philosophies stem from the work of Lev Vygotsky, Jean Piaget, and researchers on behalf of the National Association for the Education of Young Children. Each of these important theories is outlined, including the theory foundation, its importance in the field of early childhood education and its influence on general beliefs and understandings in the field about the concept of play.

Vygotsky's theory regarding play focuses on two fundamental issues: the origin of play and how it develops, and whether or not play is the principal activity in children's lives (Frost, Wortham, & Reifel, 2012). It is critical of what were, at the time of its publishing, "traditional" definitions of play: for example, that play is defined based on the pleasure it provides (Frost et al., 2012).

According to Vygotsky's theory, a zone of proximal development (ZPD) exists for all children. This zone is the range of tasks between ones a child can handle independently and ones at the very highest level s/he can master through play or with the help of adults or other peers (Bodrova & Leong, 2007; Chaiklin, 2003; Kozulin, 2004; Vygotsky, 1978). These adults and more competent peers can scaffold a child, helping him/her to achieve higher levels of thought/action (Bodrova & Leong, 2007). According to Vygotsky, there is no possibility for play without previously-established rules based on real-life behavior, regardless of the child's age or developmental level, and even if the play being engaged in is pretend play (Frost et al., 2012).

Vygotsky's theory is important in the field of early childhood education for multiple reasons. Vygotsky (1933; as cited in Frost et al., 2012) expressed his belief that when children begin to reach school age (four or five years), there are special needs and incentives that must be met in order to educate the "whole child," and these can be met spontaneously through children's play (Frost et al., 2012). In Vygotskian theory, the role of play and its influence on a child's development plays a pivotal role in helping children learn to separate the concrete (objects) and the abstract (thoughts; Chaiklin, 2003). Play is seen a developmental zone, within which a child can do more than under normal circumstances (Frost et al., 2012).

Beyond its influences on education, Vygotskian theory has specific influences on the subject of play, including general beliefs and understandings about play that it has added to the body of knowledge characterizing the field. Vygotsky focused on the representational and fantasy aspects of play rather than on stages of play (Frost et al., 2012). A key tenet of Vygotskian theory is that play leads development and allows children to operate at their highest ZPD level (Bodrova & Leong, 2007; Vygotsky, 1978). Vygotsky believed that children are able to follow games with rules much earlier than other theorists believed (Bodrova & Leong, 2007; Frost et al., 2012).

Vygotsky and another theorist, Jean Piaget, shared similar views on how children learn and the importance of play in young children's development. The two theories share comparable principles, both generally (about child development) and field-specific (how development informs the way children learn and grow). Piaget's theory foundation is led by an interest in cognition, based on assumptions that mental structures result from experience (Frost et al., 2012). There are many terms that Piaget used to describe the ways that children learn, two of which are assimilation and accommodation.

Assimilation, according to Piaget's theory, is the action of the child incorporating surrounding objects into his/her existing schemas (Frost et al., 2012). In this theory, a *schema* is used to discuss a mental rule that a person uses to categorize new information in order to understand it (Widmayer, 2005). In other words, children already possess mental frameworks, and when they are faced with something new, they utilize what information they already have to fit the new information into these pre-existing categories of understanding (Blake & Pope, 2008). Learning to make sense of new information via existing frameworks is part of a set of skills referred to collectively as conservation of

constancy, and can be developed through playing games. According to this theory, a great majority of the learning that occurs as a child is grounded in play, where children have opportunities to practice their developing assimilation and accommodation skills in a safe environment (Blake & Pope, 2008).

Accommodation, on the other hand, is the action of objects incorporating or inserting themselves into a child's schemata, and the child thereby modifies these already-existing mental structures (Blake & Pope, 2008). Both assimilation and accommodation are important learning tools for children in early childhood. There is an important balance to be struck between the two, as children regularly enter disequilibrium (the result when new information does not fit in with existing schema) and learn through accommodating their mental frameworks to accept new information. This process helps children to be curious about the world and learn new things (Blake & Pope, 2008). Children can enter this disequilibrium by experimenting with their natural curiosity through the practice of play. According to Piaget, both play and imitation are crucial in the development of knowledge, and all children possess these skills naturally, making learning through them a universal occurrence regardless of context (Rieber, 1996).

Much more recently, the National Association for the Education of Young Children published a position statement on what is considered in the field of early childhood education to be "developmentally-appropriate" for children to learn. This position statement stems from understandings in the field based on the ideas of theorists such as Piaget and Vygotsky. Its focus is specifically on classroom learning and has a very heavy emphasis on play.

Developmentally Appropriate Practice (DAP) is focused around meeting children

where they are developmentally and giving them the abilities and opportunities to meet

reasonable but challenging goals (Copple & Bredekamp, 2009). DAP includes all

domains of learning (physical, socioemotional, and cognitive), and assumes that each

domain affects and is affected by the other two. Children's growth and learning act as

"building blocks," with early learning laying the foundation for later learning. It is

through this foundation-laying that development and learning occur as part of a dynamic

and uninterrupted relationship between nature (biological processes) and nurture

(experience; Copple & Bredekamp, 2009). According to this perspective, early

experiences are vital in children's development and set the stage for development and

experiences later in life. These experiences are cumulative and can be positive or

negative. For negative experiences, early intervention and support can help children work

through any problems they face – the earlier, the better. Additionally, there are optimal

learning periods for certain skills, so it is important that children are provided with the

tools, support and supervision needed to gain these skills during the right times so they

can be used to build off of later (Copple & Bredekamp, 2009).

DAP holds an important role in early childhood education, and the publication by

Copple and Bredekamp (2009) outlines several guidelines for DAP in the classroom.

These include: creating a community of learners (valuing each community member,

developing important relationships among members, designing the physical environment

for safety and to meet the needs of those in it, etc.); teaching to enhance learning

(fostering caring communities of learners in the classroom, knowing each individual child

well, as well as the significant/influential people in the child's life, helping children to fill

in the gaps in learning they may have missed during the optimal periods in early

childhood, etc.); planning curriculum to meet goals (creating comprehensive and effective curriculum, making connections between learning concepts because children learn better when concepts are made meaningful by being related to their own lives, etc.); and assessing children for learning and development (focusing on progress toward developmentally-appropriate and educationally-significant goals, acknowledging family goals for children and support children's learning appropriately while respecting these goals, etc.).

In DAP vernacular, play is referred to over and over again as an important vehicle for developing self-regulation, encouraging language acquisition, and promoting cognitive and social competence (Copple & Bredekamp, 2009). There are links in DAP between play and foundational skills, such as memory, self-regulation, oral language abilities, and social skills. Play is explained as developmentally-appropriate for children of all ages to be playing (though the play differs depending on the age and developmental level of the child). According to the DAP position statement, child-guided, teacher-supported play benefits children in a number of ways.

These three particularly important foundations of play are informative for most early childhood education programs. However, even within these theories, there are differences in defining what play is, identifying types of play, and highlighting the different essential learning opportunities supplied by each.

Types of Children's Play

The main domains of play, according to Pellegrini (2009), are: social (e.g., play fighting), object (e.g., building with blocks and making different structures), pretend (e.g., taking on different roles in a dramatic play area), and locomotor (e.g., chasing).

Each of these is described more in-depth below.

Social play has three levels: solitary play, in which children play alone and independently, making no effort to be close to one another; parallel play, in which children play independently but are near or among other children; and interactive, cooperative, or group play, where children work together to create a finished product or meet an objective (Frost et al., 2012). Social play can also take place in the form of socio-dramatic play, where children represent and create meaning as they act out their emerging understanding of the world (Fromberg, 2002). Socio-dramatic pretend play is also related to fantasy play, as children act out imaginary events with peers or an adult (Fromberg, 2002). Children's socio-dramatic play can bring out underlying emotional, moral, and cosmic issues, but these are always based on children's personal experiences, regardless of the props they use (Fromberg, 2002).

Constructive, or object, play involves the manipulation of objects: pounding them, throwing them, and so on (Pellegrini & Bjorklund, 2004). In the context of object play, sex differences are related to different benefits, and these are guessed to be "deferred" – the benefits generally show up much later. It is hypothesized that this ties back to males' and females' traditional skills in hunting and gathering, respectively, such that object play as children trained them for their roles as adults (Pellegrini & Bjorklund, 2004).

Fantasy (pretend) play involves the player using an idea that is different from reality, and involves mental representation and reenactment; this generally occurs socially rather than alone (Pellegrini & Bjorklund, 2004). Because of its social nature, fantasy play helps children with perspective-taking. As with object play, there are very clear sex differences in fantasy play: girls' fantasy play is more frequent and complex

than boys', and it tends to be longer, have more deeply-developed themes, and be more abstract (Pellegrini & Bjorklund, 2004). The social aspect of fantasy play naturally leads to conflict, as children's views are likely to contrast with those of their peers; fantasy play is ambiguous by nature – "play frame markers" are needed to get all players on the same page (Pellegrini & Bjorklund, 2004). Fantasy play helps children to understand others because of constant and repeated simulation and the negotiations that occur within them. Similarly, pretend play is defined as play in which children use objects, actions, and words in place of absent objects, actions, and situations (Christie, 1983; Lillard, Pinkham, & Smith, 2011). In this play, children may play alone with a variety of objects (toys, rocks, sticks, etc.) while creating a storyline in their imagination (Fromberg, 2002).

Physical activity play, also called locomotor play or exercise play (Pellegrini & Smith, 1998), has a series of "peaks" throughout the spectrum of child development. Peak 1 is referred to as "rhythmic stereotypies" (Pellegrini & Smith, 1998). These occur during the first year of life, and include things like body rocking and foot kicking (gross motor movements that peak around six months and then gradually disappear). The second peak is "exercise play," which is distinguished by physical vigor that may or may not be social. This increases in the preschool period, peaks around four years of age, and decreases during primary school years. It includes things like running, chasing, jumping, pulling/pushing, lifting, and climbing (Pellegrini & Smith, 1998; Pellegrini, Dupuis, & Smith, 2007). Finally, the third peak is defined as "rough-and-tumble (R&T) Play," which includes vigorous behavior like wrestling, kicking, tumbling, etc. that appears aggressive but is actually playful. Rough-and-tumble play includes a social aspect not necessarily present in exercise play. This type of play generally rises throughout

elementary school and peaks around age 10: it follows an inverted-U shape trend from ages 3-13 (Pellegrini & Smith, 1998).

Physical activity play varies with gender: males engage in more physical activity play than females (especially exercise play and R&T play); this is true across all cultures examined in the literature, and many animal species, as well as consistent over time (Lever, 1976; Pate, Pfeiffer, Trost, Ziegler, & Dowda, 2004; Pellegrini & Smith, 1998). Its functions include physical training, cognitive performance, social functions, fighting skills, and emotional coding skills (Pellegrini & Smith, 1998). Additionally, physical activity play has some ties to social competence: it is suggested that the physical skills that children gain in this type of play are put to use during games with rules. In other words, practice with physical activity play allows children to be flexible and innovative. This is generally easier for popular children as compared to rejected children, who may feel excluded and therefore take part in more solitary play than activity play with peers (Pellegrini, 1988; Spinrad et al., 2004). While both rejected and popular children engage in rough-and-tumble play, only popular children's play is positively related to social competence. Rejected children do not see modeling of appropriate social problem-solving, and often their rough-and-tumble play turns into actual aggression (Pellegrini, 1988; Spinrad et al., 2004).

These different types of play each provide children with benefits. Benefits come in all of the aforementioned domains: physical, socioemotional, cognitive, and linguistic. Therefore children experiencing different types of play have a variety of ways to improve their skills.

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Benefits of Play

In a general sense, play gives children the opportunity to learn about their world and gain physical competence, interrelate with others, learn how to regulate emotions, and practice problem solving (Copple & Bredekamp, 2009). Play serves (for humans and other animals alike) physical, mental, socio-emotional, and language benefits, and each kind of play has different characteristics, functions, and expression of these benefits. Additionally, play influences development and supports what children already know and have experienced (e.g., Fromberg, 2002). In addition to cognitive, socio-emotional, and language development, play also has a significant impact on physical development (e.g., Copple & Bredekamp, 2009). Partly due to these varied and extensive benefits, play has been shown to be both a necessary occurrence in the lives of children and an appropriate classroom component in the field of early childhood education (Copple & Bredekamp, 2009; Fromberg, 2002). Specific areas of benefit are outlined below.

Regular physical activity is associated with benefits for long-term health, including lower body mass, lower blood pressure, and lower insulin levels (Brockman, Jago, & Fox, 2011). Active play has benefits that uniquely contribute to development that other forms of more structured physical activity are not associated with, including creativity, resolving conflicts, and social engagement skills (Brockman et al., 2011). Play also involves watching and practicing body actions; this can help with academic performance, as it enhances brain function, increases energy levels, improves children's self-esteem, and is a relief from boredom (Frost et al., 2012).

In addition to physical benefits, play has cognitive benefits as well. Children acquire knowledge more easily through play, as it is linked to both convergent (thinking

that brings together information that focuses on solving a problem) and divergent

(thinking that moves away to involve a variety of aspects) problem-solving ability

(Barnett, 1990). Evidence has linked make-believe/pretend play to gains in cognition:

"play tutoring" (providing themes and appropriate props for socio-dramatic play to

engage children) can lead to increases in mental age and fluency; "skill tutoring"

(engaging children in activities with a specific end in mind, such as art projects or

concept-teaching games) also lead to these increases in mental age and fluency (Christie,

1983). For these reasons and others, play is often considered necessary for cognitive

development and learning (Frost et al., 2012).

In terms of socio-emotional and social benefits, play is said to help establish and

maintain social connections between people (Barnett, 1990; Webster-Stratton & Reid,

2004). Children who lack the opportunity to play are likely to be either maladjusted or

excluded from the peer group, as the play group is a key context for social learning and is

an important factor in social integration (Barnett, 1990). For these reasons, the success or

failure of any "social animal" depends on its capability to fall into its role in the group

and communicate appropriately at the right times (Barnett, 1990).

Beyond the social aspect alone, play also has emotional benefits. According to

Copple and Bredekamp (2009), play is a vehicle for helping children develop and hone

self-regulation skills that help children act out and understand their own emotions *and* the

emotions/feelings of others. When children play, they have the opportunity to act out

situations that elicit strong emotional reactions and then resolve those issues while

remaining in a safe situation. An important aspect of good socioemotional skills is the

ability to encode/decode social signals from actions/behaviors, and involvement in

physical activity play with peers (especially R&T play) helps children hone their abilities to encode/decode emotions (Pellegrini & Smith, 1998).

Finally, play and language are interrelated, as both involve sharing objects with others (using communication) and are used to experiment, and thereby learn, through this experimentation (incorporate symbolic representation). Many studies have found support for a relation between symbolic play and language development (e.g., Barnett, 1990; Meins, Fernyhough, Arnott, Leekam, & Rosnay, 2013). Play helps to increase language skills; as children engage in pretend play writing shopping lists or taking orders at a restaurant, they are practicing important writing skills and demonstrating their understanding of the concept of language and writing (Fromberg, 2002; Saracho & Spodek, 2006). This type of sociodramatic play especially aids in children's literacy development (Stone, 2009).

Clearly, play has benefits in all contexts. The context that is of most interest to this study, however, is within the field of early childhood education. Play in early childhood education takes its roots in the aforementioned theories, and is an important element of learning.

Play in Early Childhood Education

Children in school are expected to decode print and pass standardized tests, but the practical uses of these skills are often narrowly defined and valued more than what may be more important life skills (questioning the world around them, reading for pleasure, etc.; Fromberg, 2002). In early childhood, play looks different depending on the age of the child; however, there are some characteristics of play that remain constant as children develop. Play looks simple (but is really complex), looks like fun, may look

trivial, takes on different forms, and is a legitimate school activity regardless of age (Fromberg, 2002).

Play is a real and important part of early childhood, both in and outside of the classroom; it is a form of "disciplined freedom" (Fromberg, 2002, p. 20) that is constant throughout life and helps transform and integrate development. Play is, therefore, both the process and the product. Children need opportunities to "play out" what they have learned, and teachers must give them time and materials to do this (Fromberg, 2002). These benefits are not lost to members of the field of early childhood education, nor are they lost to parents of children in early childhood, as found by a study done by Cooney (2004). In this study, parents and teachers were asked about children's play and its benefits, and they indicated that play had linguistic benefits ("develop new vocabulary"), cognitive benefits ("understand concepts," "develop imagination"), physical benefits ("develop motor skills"), and socio-emotional benefits ("learn to cooperate," "express emotions," "appreciate diversity"; Cooney, 2004, p. 268), all of which are generally considered to be major benefits of play, as outlined in the previous section. It is important to note, therefore, that benefits of play are not overlooked by practitioners and parents.

Additionally, characteristics of play are a function of sex. Because children spend more time playing with same-sex peers, playing with other-sex peers or mixed-sex groups changes the type and quality of play; these differences are consistently demonstrated in research over time (Fabes, Martin, & Hanish, 2003; Lever, 1976). Qualities of boys' play include: roughness, with more physical contact, fighting, and bantering; centering around a clear hierarchy ("pecking order"); the stability of stature and roles; occurring more publicly and with little supervision from adults; and likely

occurring in groups, as boys tend to choose activities that need more players (basketball, football, etc.; Fabes et al., 2003; Lever, 1976). On the other hand, qualities of girls' play include: less stable dominance hierarchies, an emphasis on cooperation, clearer communication, more verbal behavior than physical behavior, and more dyadic occurrences (dramatic play, jumping rope, etc.; Fabes et al., 2003; Lever, 1976). Activities are more likely to be gender-typed in same-sex peer groups; these same-sex interactions may promote gender-stereotypic behaviors/interests (Fabes et al., 2003). Children's play choices when playing with same-sex peers are more stereotyped than with other-sex or mixed-group peers.

Because play has such an important role in children's learning, it is also a vital component of early childhood teacher education programs. Teacher education is not the only factor that influences pre-service teachers, however, because of the effects of pre-conceived assumptions stemming from personal experiences and pre-existing beliefs.

Teacher Concepts and Assumptions

Assumptions are influential because they are beliefs that are internalized; they become – in the mind of the person holding them – irrefutable facts that set the foundation for all related beliefs and actions (Catano, 2003). Pre-existing assumptions are taken-for-granted beliefs that are personally incontrovertible and held by every individual person (Pajares, 1992). These assumptions can be founded several ways, including coincidentally, a single defining occurrence, or a series of individually insignificant events that when taken together create a lasting impression on the individual (Pajares, 1992). According to Sanger and Osguthorpe (2011), "beliefs" (used interchangeably with the concept of "assumptions") are comprised of preconceptions and

general understandings, along with other philosophical and psychological constructs that have been studied extensively by researchers in these areas.

Teacher assumptions generally come from personal experiences in school and the individual's personality (Donaghue, 2003). Assumptions determine the importance that teachers place on various aspects of learning; furthermore, these assumptions often remain unevaluated by those teachers, because they are viewed as objectively true instead of relative (Pajares, 1992). Because of this, many teachers may fail to understand new concepts presented to them during teacher education and revert to preconceived notions created from their own experiences (Sanger & Osguthorpe, 2011). All teachers hold beliefs about their own work, their role, their students, their subject matter, and more (however they label them; Pajares, 1992).

For these reasons, teachers' personal beliefs (assumptions) must be realized before any professional development can occur (Donaghue, 2003; Sanger & Osguthorpe, 2011). The beliefs teachers hold influence their judgments and perceptions, and then these perceptions play a large role in how teachers work in their classrooms and with their students (Pajares, 1992). Because of this, many researchers have suggested that understanding the interplay between assumptions and perceptions of pre-service teachers is necessary to improve teacher education programs such that they will help pre-service teachers effectively recognize their own beliefs and use these understandings to become better practitioners (Pajares, 1992; Sherwood & Reifel, 2010). This is not to say that a recognition of preconceptions and subsequent belief change will unquestionably produce a change in practice (Sanger & Osguthorpe, 2011), but it is nevertheless important for teacher education programs to help pre-service teachers identify their assumptions.

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Assumptions are often subconscious and hard to elicit and identify, so teachers may find it difficult to recognize their own assumptions and determine how they influence classroom practice (Donaghue, 2003; Sanger & Osguthorpe, 2011). Two teachers may have the same base of knowledge but teach in entirely different ways – this is due to the difference in their belief systems, rather than their knowledge systems (Pajares, 1992; Sanger & Osguthorpe, 2011).These assumptions specifically affect the way teachers view play. All teachers generally have an idea of what play is and what role it holds in the classroom (Bennett, Wood, & Rogers, 1997). However, these assumptions are not always positive in nature. Ranz-Smith (2007) found that some teachers describe play in a variety of negative ways, including assertions that it can be inappropriately aggressive, distracting, detracting from instructional time, or violent. Teachers holding these or similar assumptions about children's play would undoubtedly approach using it in the classroom differently than a teacher who views play more positively.

Assumptions are constantly made by teachers regarding play, and these assumptions are not always accurate (Bennett et al., 1997). Regardless, assumptions play a pivotal role in how pre-service teachers approach play in the classroom. All of their prior experiences and pre-existing beliefs about play and its importance in learning affect the way pre-service teachers perceive play and approach it in eventual practice.

Pre-Service Teachers' Perceptions of Play

Perceptions of play can be solidified or changed based on assumptions and the quality and type of pre-service teacher education a student experiences. Research suggests that pre-service teachers have well-developed beliefs prior to entering their teacher education program (Joram & Gabriele, 1998; Sherwood & Reifel, 2010). These

beliefs can be potentially limiting, as pre-service teachers' ability to learn and receive knowledge from their instructors depends on their prior experiences and belief systems (Anderson et al., 2003). "Filters" created by prior beliefs can make communication between pre-service teachers and instructors difficult (Joram & Gabriele, 1998).

Pre-service teacher education generally operates under several assumptions: that knowing must precede doing and that doing is then a consequence of knowing; this leads to what is referred to as "front-loading" – attempting to quickly provide pre-service teachers with as much knowledge as possible before they begin to teach (Doyle & Carter, 2003). The greatest factor in knowledge gain for pre-service teachers is the relation of to-be-learned material and pre-existing beliefs (Joram & Gabriele, 1998). There is often a difference between what the instructors (experts) teach, what the students (pre-service teachers) take in, and how this intake is put into practice (Donaghue, 2003).

Effective teacher education programs explicitly help pre-service teachers understand their own assumptions ("confront" them) and realize how these may prevent them from learning about others unlike themselves (Darling-Hammond, 2006). It is important to understand how pre-service teachers view play, because the perspective that a future educator holds before beginning intensive instruction plays a vital role in how s/he will be able to link play and curriculum in an early childhood setting (Klugman, 1996). Cooney (2004) did research with kindergarten teachers in Guatemala, and found that overall, both teachers and parents (collectively referred to as "adults" in the study) believed play to be an important aspect of kindergarten learning. This research suggests, as was previously mentioned, that the benefits of play are apparent to adults with a vested interest in education, and that teachers' pedagogies were not influenced because of a

belief that play is unnecessary.

Despite this understanding of the general importance of play, however, there are many reasons that play does not play the prominent role it deserves in early childhood classrooms, and these could be due to what Cooney (2004) referred to as "barriers" (environmental characteristics, time restrictions, etc.) and that Ranz-Smith (2007) found in conversations with practicing teachers in the United States, or the aforementioned teacher assumptions regarding the specific ways play should be included in learning. Sherwood and Reifel (2010) found that the views of pre-service teachers were diverse regarding play, and that these views were affected by perceptions and assumptions regarding its role and importance in the classroom.

Sherwood and Reifel (2010) interviewed seven pre-service teachers enrolled in a teacher education course and discussed with them their beliefs about children's play. These interviews were semi-structured and a major activity for participants was to create a list of activities that might take place in a pre-kindergarten or kindergarten classroom (both general and specific activities were included) and then label these, as well as a list of 52 items provided by the researchers, as *play, not play,* or a third category called *middle*. Through this activity, the researchers were able to identify common themes among the seven participants regarding beliefs about children's play, but also found that no two participants used the exact same set of attributes to describe play. This suggests that while commonalities do exist among pre-service teachers, their individual characteristics and experiences allow for different interpretations of the same information.

Past research suggests that pre-service teachers' perceptions about teaching are,

for the most part, unchanged by teacher education courses (Fajet, Bello, Leftwich, Mesler, & Shaver, 2005). Research over the last decade has shown that core beliefs held by pre-service teachers tend to remain stable over time, which changes the way teacher education must be approached (Fajet et al., 2005). Participating in integrated content teacher education courses, specifically, has been shown to change pre-service teachers' beliefs to be more consistent with the program's philosophy and current understandings of the field of teaching (Hart, 2012). Teacher education focusing on integrated curriculum has gained popularity in recent years; it involves making connections between academic subject areas. This has also been referred to as "multidisciplinary education" (Drake & Burns, 2004).

It is clear that pre-service teacher assumptions and perceptions have an effect on the way teachers approach play theoretically and in practice. There are many variables that play a role in forming this concept of play, and one of them is explored more in depth in this study.

Pilot Study

This study was piloted as part of an undergraduate research project. For this study, 24 undergraduate students from the early childhood education program at a Midwestern university were chosen as participants. All of these students were within the same stage of the teacher education program. The purpose of the pilot study was exploratory, to investigate pre-service teachers' general beliefs about play. It was additionally done as a way of creating and piloting the instrument used in the current study.

The methodology of the original study was very similar to the methodology in the

current one, with a few exceptions. The pilot study employed an instrument similar to the current one, but with different labels on the Likert-type scales. All 24 participants completed a demographic questionnaire identical to the one used for this study, as well as two questionnaires set up in a similar format as the ones located in Appendix A (one investigating pre-service teachers' beliefs about the adjectives associated with play and another investigating the activities that pre-service teachers characterize as play).

The pilot study provided important information that led to modification of the instrument for the current study. An open-ended section of the questionnaire was removed in order to better streamline the current study. The Likert-type scales were updated to be more definitive and provide a wider range of possibilities for the participants to choose from. The items from the original study's instrument remained unchanged for the current study.

Findings from the pilot study suggested the instrument be used for further research with a greater number of participants from different stages of the teacher education program. This original study was conducted with the intention of repeating it using a larger sample size, which is what the current study does.

Current Study

The current study is an extension of the research done by Sherwood and Reifel (2010), which recommended more research about pre-service teachers' concepts of play. It takes what the researchers did with the seven semi-structured interviews and applies this concept to a questionnaire-style format to be given to members of a teacher education program at a Midwestern university. Using the list of activities provided by the researchers for the participants in the original study by Sherwood and Reifel (2010), a

questionnaire has been created that mimics the labeling activity the original seven pre-service teachers completed. This study adds to the existing research base on pre-service teachers' individualized concepts of play as recommended by Sherwood and Reifel in their aforementioned 2010 study.

The current study explores the following research question: to what extent, if any, do pre-service teachers' beliefs (assumptions and perceptions) about children's play in the classroom differ by cohort? This was divided into two sub-questions, the first exploring differences related to adjectives that describe play and the second exploring differences related to activities that constitute play. First, do pre-service teachers' beliefs about *adjectives that describe play* differ between the four cohorts of students? Second, do pre-service teachers' beliefs about *activities that constitute play* differ between the four cohorts of students? It was hypothesized that differences in pre-service teachers' perceptions will emerge between cohorts.

CHAPTER III

METHODOLOGY

Participants

The participants in this study were students enrolled in the early childhood education (ECE) program at a Midwestern university during the spring semester of the 2013-2014 school year. Once IRB approval was obtained (see Appendix A), the participants were recruited using convenience sampling from four specific courses that ECE students take, including one course from each level of the teacher education program (Block I, Block II, Block III, and Block IV). In order to recruit participants, announcements were made in these chosen courses and a date was set for data collection.

Every participant was majoring in Human Development and Family Science with an option in Early Childhood Education and was enrolled in courses applying to only one of the levels of the program ("Blocks"). Additionally, participants must not have been employed as a classroom teacher prior to enrolling in this teacher education program. The number of participants included in this study was 65 (eight from Block I, 23 from Block II, nine from Block III, and 25 from Block IV). The complete demographic information about the participants in this study is represented in Table 1.

Table 1.

Pre-Service Teacher Demographic Information (N=65)

Descriptor	n (%)
Block	
Block I	8 (12.3%)
Block II	23 (35.4%)
Block III	9 (13.8%)
Block IV	25 (38.5%)
Mean Age	21.43 years
Age 20	10 (15.4%)
Age 21	29 (44.6%)
Age 22	18 (27.7%)
Age 23	5 (7.7%)
Age 24	2 (3.1%)
Age 25	1 (1.5%)
Sex	
Female	64 (98.5%)
Male	1 (1.5%)
Ethnicity	
Caucasian	57 (87.7%)
Native American	5 (7.7%)
Hispanic	1 (1.5%)
Asian	2 (3.1%)
Country of Origin	
United States	64 (98.5%)
Russia	1 (1.5%)
College Major	
Early Childhood Education	65 (100%)
Other	0 (0%)
Completion of *Creative Expression and Play* Course	
Yes	65 (100%)
No	0 (0%)

Procedures

The instructors for the block-specific courses and the researcher worked together to choose a date for the researcher to come into each classroom and collect the data. On the chosen day, the researcher began by introducing herself to the class, providing an overview of the purpose of the study, and explaining that participation in the study involved completing a short demographic questionnaire along with three questionnaires about play in the early childhood classroom. After passing out a Participant Information Sheet (see Appendix B), the questionnaires were distributed (see Appendix C); when participants had completed their questionnaires, they placed them in an envelope. Participation in the study was voluntary and participants had met the aforementioned requirements.

Because this was a non-experimental study, groups were not divided by the researcher, but participants instead remained in their already-existing groups (Block I, Block II, Block III, or Block IV). Additionally, because the study was non-experimental, the researcher did not impose treatment on any of the participants. Instead, the researcher used the already-existing differences in pre-service teacher education by blocks as levels of the independent variable.

Measures

Stage of teacher education. The participants were enrolled in block-specific courses, with each subgroup of participants belonging to only one category: Block I, II, III, or IV. The researcher noted on the surveys which category the participants fell into based on their enrollment in the specific courses chosen by the researcher to visit for data collection. This information was used to divide the participants into groups (acting as the

independent variable for the study). This variable was categorical and divided

participants into four levels (i.e., each Block was a level).

Conceptions of play. This construct was represented by two dependent variables:

adjectives describing play and *activities identified as play*. The first dependent variable,

adjectives describing play, was measured using a Likert-type scale ranging from 1 to 3.

This scale was created by the researcher and therefore has not been used in any prior

research. However, it was created using the results from the study conducted by

Sherwood and Reifel (2010), where they interviewed seven pre-service teachers about

adjectives describing play as well as activities constituting play, and in turn reported

themes that arose from the interviews. This instrument was originally created and

utilized for the purposes of an undergraduate thesis done by the researcher, and was

developed with permission from the original authors.

Participants were given a set of 20 adjectives that can be used to describe play.

Using a Likert-type scale, the participants were presented with a statement to follow the

prompt: "Play is…" and chose 1 ("Disagree"), 2 ("Neutral") or 3 ("Agree") to indicate

their level of agreement with the statement. Sample items included: "Play

is…*imaginative*," "Play is…*educational*," and "Play is…*the job of the teacher*."

To measure the second dependent variable, *activities identified as play*,

participants were provided with a list of 25 activities that could constitute play. Using a

4-point Likert-type scale, 1 ("Never Play"), 2 ("Seldom Play"), 3 ("Often Play"), or 4

("Always Play"), participants rated the extent to which they believed each given activity

constitutes play. Sample items included "Play includes…*show-and-tell*," "Play

includes… *listening to a book on tape*," and "Play includes…*learning about other*

cultures."

Participants also filled out a portion of the survey used in Cooney's 2004 study regarding teacher attitudes about play, which included nine questions that explore general beliefs about play as well as beliefs about play in the classroom, specifically. This information was used as an attempt to measure construct validity, as there are items addressing pedagogy and classroom environment, benefits of play, play locations, and play partners (Cooney, 2004), all of which are important in measuring pre-service teachers' understanding of play in the classroom.

Data Analyses

The following analyses were used to explore the research questions. Recall that the general research question is: To what extent, if any, do pre-service teachers' beliefs (assumptions and perceptions) about children's play in the classroom differ by cohort? This was divided into two specific questions, the first exploring differences related to adjectives that describe play and the second exploring differences related to activities that constitute play.

Specifically, do pre-service teachers' beliefs about *adjectives that describe play* differ among the four cohorts of students? Descriptive analyses including means, standard deviations, ranges, frequencies, and percentages, were conducted. An exploratory factor analysis was run to determine how the items on the adjectives measure loaded together as factors. Additionally, using individual items as well as factors emerging from the factor analysis, ANOVAs were conducted to determine if there were differences in pre-service teacher beliefs regarding children's play by stage in the teacher education program (Block I vs. Block II vs. Block III vs. Block IV).

Specifically, do pre-service teachers' beliefs about *activities that constitute play* differ among the four cohorts of students? Descriptive analyses including means, standard deviations, ranges, frequencies, and percentages, were conducted. An exploratory factor analysis was run to determine how the items on the activities measure loaded together as factors. Additionally, using individual items as well as factors emerging from the factor analysis, ANOVAs were conducted to determine if there were differences in pre-service teacher beliefs about play activities by stage in the teacher education program (Block I vs. Block II vs. Block III vs. Block IV). Finally, responses to the open-ended questions were analyzed qualitatively for themes.

CHAPTER IV

RESULTS

Pre-Service Teacher Ratings of Adjectives Describing Play

Participants reported their level of agreement with adjectives following the prompt: "Play is…" by choosing "Disagree," "Neutral," "Agree." Descriptive information about these ratings, including means, standard deviations, and ranges, can be seen in Table 2. Of the 20 adjectives provided to the participants, there were two that were unanimously agreed upon: all 65 participants agreed with the statements "play is a creative process" and "play is important for learning." Among the other 18 items, there was more variety, with participants' responses varying in level of agreement. For example, the items "play is something children do because they want to" ($M=2.97$) and "play is stimulating" ($M=2.97$) had high means, while items such as "play is driven by rules" ($M=1.49$) and "play is difficult for the teacher to find time for" ($M=1.34$) had lower means.

A one-way analysis of variance (ANOVA) was conducted to determine if there were differences in pre-service teacher levels of agreement with adjectives by block. Twenty separate ANOVAs were conducted, one for each of the 20 adjectives; one significant difference was found for the item "play is focused on a specific outcome."

Table 2

Means, Standard Deviations, and Ranges for Pre-Service Teacher Ratings of Agreement with Adjectives Describing Play (N = 65)

Adjective	Mean	±SD	Range*
Something children do because they want to	2.97	0.17	2—3
A creative process	3.00	0.00	3—3
Imaginative	2.98	0.12	2—3
Enjoyable for those involved	2.95	0.21	2—3
Serious	1.88	0.65	1—3
Focused on a specific outcome	1.80	0.62	1—3
Physically active	2.68	0.47	2—3
Socially interactive	2.78	1.45	1—3
Academic	2.83	0.42	1—3
A reward	1.91	0.71	1—3
Passive learning	2.08	0.80	1—3
Driven by rules	1.49	0.59	1—3
Relaxing	2.62	0.52	1—3
Difficult for the teacher to find time for	1.34	0.57	1—3
Important for learning	3.00	0.00	3—3
Teacher-directed	1.58	0.58	1—3
Educational	2.95	0.21	2—3
Stimulating	2.97	0.25	1—3
Something that can be done alone	2.91	0.29	2—3

*1=disagree; 2=neutral; 3=agree

Post-hoc tests accounting for differences in cell sizes (Dunnett's *T3*) demonstrated that this difference existed between Blocks I (*M*=1.38) and III (*M*=2.22) (see Table 3).

Factor analysis and scale reliabilities. In order to determine whether the 20 items representing play adjectives could be reduced to a smaller number of activities, a principal axis factor analysis with varimax rotation was performed. Factors with an eigenvalue greater than or equal to 1.0 were included in the final solution. Two of the items, "Play is important" and "Play is creative" were removed because each one had a variance of 0 (*M*=3, *SD*=0). Each item with a factor loadings of .40 or higher was interpreted in the solution (Tabachnick & Fidell, 1998). The solution converged easily and could be readily interpreted. Seven factors were extracted, accounting for 66% of the variance. Five of the factors were interpretable, accounting for 49% of the variance. Based on the items that comprised each factor, the five factors were named: Developmental Adjectives, Independence Adjectives, Structure Adjectives, Pleasure Adjectives, and Teacher's Role Adjectives. Two items were complex ("academic" and "stimulating"), loading on more than one factor. One of these items ("stimulating") loaded onto two non-interpretable factors, so it was ignored. The other item ("academic") loaded on one interpretable and one non-interpretable factor, so it was retained on the Developmental Adjectives factor. Table 4 shows the factor loadings for each of the items.

The means, standard deviations, and ranges for each factor by block are located in Tables 5-9. Scale reliabilities for the play activity factors were calculated using coefficient alpha. While none of the alpha coefficients for the five factors exceeded the .70 criterion (Nunnally, 1978; see Table 10), several of the factors approached this criterion. ANOVAs indicated no significant differences between blocks on the factors.

Table 3

One-way Analysis of Variance Summary for Play Focused on a Specific Outcome:
Differences by Block (N=65)

Source	df	SS	MS	F
Between groups	3	3.16	1.15	3.36*
Within group	61	20.94	0.34	
Total	64	24.40		

*p<.05

Table 4
Factor Analysis of Play Adjectives (N=65)

	Factor Loadings				
Factor	1	2	3	5	6
Developmental Adjectives					
Physically active	**.86**	.04	.05	.00	.04
Socially interactive	**.75**	.09	.08	-.06	-.05
Academic	**.50**	.26	.21	.21	.18
Independence Adjectives					
Imaginative	.18	**.83**	.16	.04	.02
Educational	.34	**.67**	.08	.06	-.20
Something that can be done alone	-.11	**.66**	-.16	.14	.11
Structure Adjectives					
Focused on a specific outcome	.09	.14	**.76**	-.26	.05
Driven by rules	.09	-.09	**.81**	-.04	-.03
Pleasure Adjectives					
Something children do because they want to	-.12	.00	-.29	**.73**	.07
Enjoyable for those involved	.07	-.03	-.01	**.79**	-.12
Teacher's Role Adjectives					
Teacher-directed	.26	.02	-.05	-.22	**.77**
The job of the teacher	-.17	-.01	.06	.08	**.84**

Table 5

Means, Standard Deviations, and Ranges for "Developmental Adjectives" Factor (N = 65)

Block	Mean	±SD	Range
I (*n*=8)	8.63	0.74	7—9
II (*n*=23)	8.13	1.14	6—9
III (*n*=9)	8.11	1.05	7—9
IV (*n*=25)	8.40	1.00	6—9

Table 6

Means, Standard Deviations, and Ranges for "Independence Adjectives" Factor (N = 65)

Block	Mean	±SD	Range
I (*n*=8)	9.00	0.00	9—9
II (*n*=23)	8.96	0.21	8—9
III (*n*=9)	8.78	0.44	8—9
IV (*n*=25)	8.72	0.68	6—9

Table 7

Means, Standard Deviations, and Ranges for "Structure Adjectives" Factor (N = 65)

Block	Mean	±SD	Range
I (*n*=8)	2.75	0.88	2—4
II (*n*=23)	3.26	1.21	2—5
III (*n*=9)	3.67	0.87	3—5
IV (*n*=25)	3.36	1.03	2—6

Table 8
Means, Standard Deviations, and Ranges for "Pleasure Adjectives" Factor
(N = 65)

Block	Mean	$\pm$SD	Range
I (*n*=8)	6.00	0.00	6—6
II (*n*=23)	5.96	0.21	5—6
III (*n*=9)	5.56	0.73	4—6
IV (*n*=25)	6.00	0.00	6—6

Table 9
Means, Standard Deviations, and Ranges for "Teacher's Role Adjectives" Factor
(N = 65)

Block	Mean	$\pm$SD	Range
I (*n*=8)	3.38	1.06	2—5
II (*n*=23)	3.32	1.04	2—5
III (*n*=9)	3.33	1.00	2—5
IV (*n*=25)	3.56	1.12	2—6

Table 10
Alpha Coefficients for Play Adjective Factors (N = 65)

Source	Alpha Coefficient
Developmental Adjectives	.65
Independence Adjectives	.54
Structure Adjectives	.62
Pleasure Adjectives	.55
Teacher's Role Adjectives	.49

Pre-Service Teacher Ratings of Activities that Constitute Play

Descriptive information about pre-service teachers' beliefs about how often items in the set of provided activities constitute play ("Never," "Seldom," "Often," or "Always") can be seen in Table 11. None of the items were agreed upon unanimously, and for the majority of the items (20 of 25), the range was from 1-4, indicating a broad spread among the activities that pre-service teachers believe characterize play in the early childhood classroom. The items with the highest means included "dancing" ($M=3.28$), "centers" ($M=3.28$), and "working on a puzzle" ($M=3.25$). This indicates that the general consensus of participants was that these activities are very often play. Items with low means, including "looking around while in the hallway" ($M=1.88$), "pretending to be a teacher and calling a pretend student stupid" ($M=1.88$), "getting one's feelings hurt" ($M=1.54$), and "telling another child s/he cannot join a board game" ($M=1.58$), were considered playful by participants less frequently.

ANOVAs were conducted to determine if there were differences in pre-service teacher ratings of play activities by block. Twenty-five separate ANOVAs were conducted, one for each of the 25 items; three items indicated significant differences: "being read to," "doing a science experiment," and "listening to music." One item approached significance ("asking for a turn on the swings"; $p<.07$) and demonstrated significant differences between groups using post-hoc analyses that account for unequal variances. For the item "being read to," the significant difference occurred between Block I ($M=3.13$) and Block IV ($M=2.08$) (see Table 12). Block II ($M=2.87$) and Block III ($M=3.78$) demonstrated a statistically significant difference on the item "doing a science experiment" as did Block III ($M=3.78$) and Block IV (M=2.84; see Table 13). Block II

Table 11

Means, Standard Deviations, and Ranges for Pre-Service Teacher Ratings of Activities that Constitute Play (N = 65)

Activity	Mean	±SD	Range
Dancing	3.28	0.48	2—4
Arts and crafts	3.12	0.52	2—4
Reading a book	2.52	0.66	1—4
P.E. (Physical Education)	3.34	0.54	2—4
Show-and-tell	2.57	0.61	1—4
Asking for a turn on the swings	2.83	0.89	1—4
Singing the ABCs	2.74	0.62	2—4
Looking around while in the hallway	1.88	0.60	1—4
Pretending to be a teacher and calling a pretend student "stupid"	1.88	1.02	1—4
Counting to 100	2.14	0.66	1—4
Being read to	2.31	0.75	1—4
Centers	3.28	0.65	1—4
Talking to a friend	2.97	0.66	1—4
Working on a puzzle	3.25	0.56	2—4
Doing a science experiment	3.03	0.73	1—4
Listening to music	2.78	0.67	1—4
Feeding a classroom pet	2.51	0.79	1—4
Cutting out pictures that begin with the letter "B"	2.14	0.73	1—4
Listening to a book on tape	2.09	0.70	1—4
Figuring out how to join a group already busy with an activity	2.69	0.79	1—4
Getting one's feelings hurt	1.54	0.64	1—4
Learning about other cultures	2.66	0.67	1—4

Table 11 (continued)

Pretending to be a character from a violent movie	2.55	1.02	1—4
Eating lunch	1.91	0.74	1—4
Telling another child s/he cannot join a board game	1.58	0.73	1—4

*4=never play; 2=seldom play; 3=often play; 4=always play

Table 12
One-way Analysis of Variance Summary for Being Read To: Differences by Block (N=65)

Source	df	SS	MS	F
Between groups	3	6.71	2.24	4.68*
Within group	61	29.14	0.48	
Total	64	35.85		

*p<.05

Table 13
One-way Analysis of Variance Summary for Doing a Science Experiment: Differences by Block (N=65)

Source	df	SS	MS	F
Between groups	3	6.91	2.31	5.20*
Within group	61	27.02	0.44	
Total	64	33.94		

*p<.05

(*M*=2.61) and Block III (*M*=3.33) were significantly different on the item "listening to music" (see Table 14). For the item "asking for a turn on the swings," there was a significant difference between Block I (*M*=3.38) and Block III (*M*=2.33) (see Table 15). All post-hoc analyses were conducted with Dunnett's *T3*, accounting for unequal cell sizes and assumed unequal variance.

Factor analysis and scale reliabilities. In order to determine whether the 25 items representing possible play activities in an early childhood classroom could be reduced to a smaller number of activities, a principal axis factor analysis with varimax rotation was performed. Factors with an eigenvalue greater than or equal to 1.0 were included in the final solution. Items with factor loadings of .40 or higher were interpreted in the solution (Tabachnick & Fidell, 1998). The solution converged easily and could be readily interpreted. Eight factors were extracted, accounting for 72% of the variance. Four of the factors were interpretable, accounting for 44% of the variance. Based on the items that comprised each factor, names were derived; the four factors were named: Cognitive Activities, Negative Activities, Socio-Emotional Activities, and Hands-On Activities.

Five items were complex ("asking for a turn on the swings," "singing the ABCs," "doing a science experiment," "feeding a classroom pet," and "figuring out how to join a group already in an activity"), loading on more than one factor. One of these items ("asking for a turn on the swings") loaded onto two non-interpretable factors, so it was ignored. Three of the items, ("singing the ABCs," "feeding a classroom pet," and "figuring out how to join a group already in an activity") each loaded on one interpretable and one non-interpretable factor, so all three were retained on the interpretable factors

Table 14

One-way Analysis of Variance Summary for Listening to Music: Differences by Block (N=65)

Source	df	SS	MS	F
Between groups	3	3.45	1.15	2.74*
Within group	61	25.54	0.42	
Total	64	28.99		

*p<.05

Table 15

One-way Analysis of Variance Summary for Asking for a Turn on the Swings: Differences by Block (N=65)

Source	df	SS	MS	F
Between groups	3	5.43	1.81	2.41*
Within group	61	45.71	0.75	
Total	64	51.14		

*p<.10

(Cognitive Activities, Socio-Emotional Activities, and Cognitive Activities, respectively). The final item ("doing a science experiment") loaded onto one non-interpretable factor and two interpretable factors: Social-Emotional Activities and Hands-On Activities. It was retained onto the Hands-On Activities factor, because it fit better with the factor interpretation. Table 16 shows the factor loadings for each of the items. For the first factor, Cognitive Activities, the item "figuring out how to join a group already in an activity" was removed to increase reliability and coherence of factor items. Cronbach's alpha without this item was a bit higher (.80 as compared to .79), and the factor made more sense without it. The means, standard deviations, and ranges for each

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Table 16
Factor Analysis of Play Activities (N=65)

	Factor Loadings			
Factor	1	2	3	4
Cognitive Activities				
Singing ABC's	**.53**	.03	.03	.16
Counting to 100	**.63**	-.04	.29	.36
Being read to	**.65**	-.24	.14	.17
Cutting out pictures that begin with the letter "B"	**.59**	.32	.16	.01
Listening to a book on tape	**.82**	.06	.23	-.08
Negative Activities				
Pretending to be a teacher & calling a student "stupid"	-.13	**.77**	.04	.03
Getting one's feelings hurt	.32	**.69**	.06	-.19
Pretending to be a character from a violent movie	-.14	**.82**	-.21	.14
Telling another child s/he cannot join a board game	.16	**.76**	-.01	-.23
Social-Emotional Activities				
Talking to a friend	.25	-.13	**.69**	.25
Listening to music	.11	-.06	**.86**	.07
Feeding a classroom pet	.19	-.00	**.50**	.10
Learning about other cultures	.29	.06	**.63**	-.05
Hands-On Activities				
Physical Education	.02	-.12	.05	**.79**
Centers	.27	-.01	.04	**.81**
Working on a puzzle	-.18	-.03	.25	**.62**
Doing a science experiment	.13	.13	.43	**.44**

factor based by block are located in Tables 17-20. It is important to note that although these particular items grouped together into interpretable factors, it does not mean that participants considered these items "play". Rather, these items varied together across the participants' responses.

Table 17

Means, Standard Deviations, and Ranges for Pre-Service Teacher Ratings of Agreement with "Cognitive Activities" Factor (N = 65)

Block	Mean	$\pm$SD	Range
I (n=8)	14.00	2.78	9—19
II (n=23)	10.87	3.15	6—18
III (n=9)	11.33	1.73	9—14
IV (n=25)	11.12	1.69	8—14

Table 18

Means, Standard Deviations, and Ranges for Pre-Service Teacher Ratings of Agreement with "Negative Activities" Factor (N = 65)

Block	Mean	$\pm$SD	Range
I (n=8)	6.50	2.39	4—10
II (n=23)	8.00	3.10	4—13
III (n=9)	7.33	2.60	4—11
IV (n=25)	7.56	2.47	4—13

Table 19

Means, Standard Deviations, and Ranges for Pre-Service Teacher Ratings of Agreement with "Social-Emotional Activities" Factor (N = 65)

Block	Mean	$\pm$SD	Range
I (n=8)	11.50	1.77	8—14
II (n=23)	10.30	2.67	5—15
III (n=9)	12.22	1.72	10—15
IV (n=25)	10.84	1.65	7—14

Table 20

Means, Standard Deviations, and Ranges for Pre-Service Teacher Ratings of Agreement with "Hands-On Activities" Factor (N = 65)

Block	Mean	$\pm$SD	Range
I (n=8)	13.63	1.85	12—16
II (n=23)	12.70	2.01	8—16
III (n=9)	14.11	1.36	12—16
IV (n=25)	12.40	1.76	9—16

Scale reliabilities for the play activity factors were calculated using coefficient alpha. Alpha coefficients for all four factors exceeded the .70 criterion (Nunnally, 1978; see Table 21). For each of these factors, ANOVAs were run to look for differences between blocks. Two of the factors produced statistically significant differences: the Cognitive Activities factor showed a significant difference between Block I (M=14.00) and Block II (M=10.87) and Block I (M=14.00) and Block IV (M=11.12), which, when adjusted for assumed unequal variance (using Dunnett's $T3$), approaches significance (p<.10; see Table 22). In other words, while the overall model is significant, the differences between blocks are only significant when equal variances are assumed. Additionally, the Hands-On Activities factor showed statistically significant differences between Blocks III (M=14.11) and IV (M=12.40). This difference approaches significance (p=.07; see Table 23).

Table 21
Alpha Coefficients for Play Activity Factors (N = 65)

Source	Alpha Coefficient
Cognitive Activities	.80
Negative Activities	.78
Social-Emotional Activities	.76
Hands-on Activities	.75

Table 22
One-way Analysis of Variance Summary for "Cognitive Activities" Factor: Differences by Block (N=65)

Source	df	SS	MS	F
Between groups	3	62.54	20.85	3.48*
Within group	61	365.25	5.99	
Total	64	427.79		

*p<.05

Table 23
One-way Analysis of Variance Summary for "Hands-On Activities" Factor: Differences by Block (N=65)

Source	df	SS	MS	F
Between groups	3	24.61	8.20	2.48*
Within group	61	201.63	3.31	
Total	64	226.24		

*p<.10

Construct Validity

In an attempt to begin to establish construct validity for the measures used in the current study, a nine-item survey tapping ideas about children's play was also included in the questionnaire packet (Cooney, 2009). While this instrument had previously demonstrated reliability, Cronbach's alpha in the present study was low (.32). Therefore, further analyses using this measure were not conducted.

Open-Ended Responses

After completing to the 25-item questionnaire about activities that constitute play, participants read two open-ended questions. The first question read: *Look at your responses. Pick one item where you chose "Seldom Play" (2) and give an example of when this item IS play.* Responses can be seen in Table 24. The second question read: Look at your responses. *Pick one item where you chose "Often Play" and give an example of when this item is NOT play*. Responses can be seen in Table 25.

Table 24

Examples of When Items Marked "Seldom Play" Are Play

Item	Text
Play includes dancing.	• This is play when they are moving to the beat of the music. The burn energy & also are exploring movement.
Play includes arts and crafts.	• Arts & crafts can be play because the child can be involved socially & physically. It can be play depending on how the child does it.
Play includes reading a book.	• Acting out the book while the teacher is reading it. • This could be in play if children are role-playing. Ex: a mother reading to her child. • When reading a book to gather information/researching. • Reading a book can sometimes be play because if a child is doing it on their own then they are actively engaged in an enjoyable activity which is what play is to me. • Reading a book; this could be a extention *(sic)* activity where the students create a readers theater based on the book. • Reading a book can sometimes be play if there is an activity involved or if the children act the book out. • This can be play when pretending you are in a library. • When a teacher is allowing the students to popcorn read for fun/review. • Students are still enjoying the activity, but they are not being active and given creative freedom. • Reading can be play when their *(sic)* is an extension off of it, such as a reader's theatre or a lively group discussion.
Play includes show-and-tell.	• Show + tell can be play if the student sharing an item involves the other students by talking or sharing a toy/object to play with.
Play includes asking for a turn on the swings.	• When children are taking turns on the swings together.
Play includes singing the ABCs.	• Singing the ABCs becomes play when students are recreating classroom activities in dramatic play while singing their ABCs. Singing is play if the child chooses to do it on their own or if they are enjoying/having fun doing it. If they're being forced to sit down + sing when they don't want to – I don't consider this play. • Often times children sing the ABC's when they are asked/told to at school. However, if a child sings for enjoyment or while "playing school" this could be considered play. • Singing the ABC's can be play if it is done to music with movements and a group is involved. • When the child has chosen to do it w/out a requirement.

	• You can make this play by incorporating a game or active activity, like hopskotch *(sic)*. They say the letters as they go along and this is fun and playful. • Singing the ABC's can be play if movement is involved.
Play includes looking around while in the hallway.	• When playing "I Spy". • To keep your class preoccupied, and to not get disruptive or bored, assign them each something specific to look for in the hall; this will be like a scavenger hunt and they can share once we are back in the room. • This item could have potential to be "play" if it is teacher initiated. For example, teacher could bring group of students out in hallway and ask them to observe the # of shapes they see and then follow this w/ a fun shape activity. • It could be play if student is looking for something or counting as they walk. • Looking around in the hallway can turn into play if used effectively as an educational game or brain break. The students can play I-spy, or discuss what they see. • When students look around they may be playing a game with a friend or silently with themselves. • The teacher can use the hallway as an opportunity to make a game where the students are on a hunt and looking for specific items in the hall. • Looking around in the hallway is not always play if the child goes straight to his/her destination. If child is twidling *(sic)* his thumbs while walking in the hall that is "playing". • This item is play when a child is looking around and using their imagination about what they see or if two children are playing I spy with things they see in the hallway. • If the child is looking around the hallway using his/her imagination to create a new scene, this could be play.
Play includes pretending to be a teacher and calling a student "stupid.	• Play is a learning process, calling another student "stupid" even as a "teacher" is harmful. • Pretending to be a teacher is "play," but the child being called stupid would not take this as "play."
Play includes counting to 100.	• Counting to 100 can be considered play seldomly *(sic)* when it is done in a playful fun way. Like doing an activity as a class or singing & dancing to 100. • Counting too *(sic)* 100 could be considered play if there is music/dance involved, manipulatives, or if it is based around an interactive game. • A child may be counting to 100 in order to play a game or as in role playing. • Counting to 100 is seldom play because they are simply

	counting. I believe that counting can be turned into a fun, engaging game if the teacher facilitates that type of learning.
• When the student is enjoying the activity.
• If children are doing activities during centers that help them practice counting to 100.
• Counting to 100 can be play when a child decides to count on his own. For instance, during free choice centers a child could decide he wants to count to 100 while following along on a number chart.
• Counting to 100 is usually a boring thing to do, but it can be made fun by associating it with a fun & active song or movement with a piece/game.
• Students can play while counting to 100 by singing songs, reading stories, or during any type of play. They may be at a dramatic play center, and would be a cashier counting money.
• Counting to 100 could be turned into an activity w/ small groups or whole groups to be considered play.
Play includes being read to.	• When children are in centers and they decide to go read books, it could be considered play.
• If it's interactive with a song and/or motions, it can be play.
• Being read to IS play whenever the teacher is reading an imaginative story and is allowing students to "act out" characters or use their own imagination.
Play includes talking to a friend.	• This item can be considered play when they are talking to a friend about a game or during imaginative/dramatic play.
• When a student is being imaginative and animated in conversation.
• It is play when they are taking on certain roles.
Play includes doing a science experiment.	• If the child is choosing to do an experiment and is coming up with everything.
Play includes listening to music.	• They are engaging in listening to music but what are they doing while they are listening. If the child is listening to music and dancing or doing motions then it is play.
Play includes feeding a classroom pet.	• I tend to think of things like feeding a pet as a job that is assigned to a child rather than free-play time. I have learned that children can turn anything into play, such as when they are pretending to feed the animal.
• Feeding an animal is more a duty and a need for the animal to survive – not optional.
Play includes cutting out magazine pictures that begin with the letter "B".	• Because I have children currently in my observation class that love to cut. While others hate it and only do it if they have to.
• When cutting out the pictures become extended into a picture hunt.
Play includes listening to a book on	• This could be play when the kids act out what is happening on the tape.

tape.	• Listening to a book on tape can be play when it is presented in that allows for the child to work through a problem. When the child is provoked to understand something. (when it is meaningful)
Play includes getting one's feelings hurt.	• Getting one's feelings hurt – if a peer upsets a student because they won't let him play with them or they are playing and a peer makes him upset by something they say or do.
Play includes learning about other cultures.	• Students could act out activities from other cultures. The dramatic play center could have aspects from other cultures. • When children can act other cultures and dress up in appropriate clothes. • When explanation of culture occurs through hands on activities that children explore/experience independently.
Play includes pretending to be a character from a violent movie.	• When a boy or girl is on the playground acting out a scene for pretend play.
Play includes eating lunch.	• Eating lunch could be considered play when you take students on a picnic or simply allow children to socialize while eating and explore new foods or even prepare/eat what you prepare. Make it enjoyable. • Sometimes children may imagine they are at a restaurant, that they are a dinosaur, that they are eating with an imaginary friend.
Play includes telling another child that s/he cannot join in a board game.	• I would say it is not play for the child who is not being able to play, however, it is also play because there are times where some options are not available to children.

Table 25

Examples of When Items Marked "Often Play" Are Not Play

Item	Text
Play includes dancing.	• Dancing is a fun activity that children would consider to be play. • When performing a routine learned in dance class such as tap, jazz, ballet, lyrical, etc. • While most of the time dance is fun teacher directed dance has no creativity. • When it's the "potty dance" ☺ • Dancing can often times be play for a young child. However, some children are involved in competitive dance routines, in which it turns into more business than play. • When doing a serious choreographed dance it might be less play and more work. • If a child is required to dance but shows no intrests *(sic)*.
Play includes arts and crafts.	• Arts and crafts are not play when it is directed by the teacher, step by step what the child should do and what their finished product should look like. • Arts and crafts usually is play, but is not when it is used as a teacher directed activity and has very set rules that do not allow the students to be creative or explore. • If all children are required to make or do the exact same thing, with the exact same result. • Arts and crafts give students a chance to be creative, interact with others around them and share supplies. • This is not play when a teacher forces the children to do the arts/crafts then expects it to look a certain way. This is when it just becomes school work. • Arts & crafts is play when it is centered around the child's free choice and imagination. IT is <u>NOT</u> play when there are specific rules that must be followed & when children are not allowed to be creative. • Arts & crafts are not play when a child is told exactly how to make something. When they do not get to create anything on their own, it's not playful.
Play includes reading a book.	• Reading a text book for an assignment. • Show and tell, not everyone always gets a turn so the students typically just sit and wait. • If a child is choosing the books – reading them while enjoying it + being imaginative it is play. Once again – if they're being made to sit down + listen then it is not play. • Reading a book – this may be a required reading for the student where they did not pick out the book and do not enjoy

	it.
	• Reading a book can be considered not play if the child is simply reciting & decoding sounds.
	• This item would be considered NOT play when the child is reading a book either independently or with an adult & the child is not moving around.
	• When the children are forced to sit down and read even when they do not want to, this becomes boring & not fun.
	• Reading not for pleasure but for an assignment may not be considered play.
Play includes P. E. (Physical Education).	• Because in P.E. the children are usually allowed to play games and with the balls while other times the children have work out or running days.
	• P.E. is not play when they are running laps or doing pushups.
	• Running laps.
	• P.E. is play a lot. Unless the kids are just told to walk around the gym or do things the kids don't find enjoyable.
	• P.E. is not play when a coach/instructor makes students complete physical tasks against their will. For example, conditioning students to do push-ups/sit-ups is not a choice and is not always enjoyable for some.
	• The presidential fitness test is not play.
	• When the students are being assessed on something particular (i.e. running time).
Play includes asking for a turn on the swings.	• Asking & waiting to swing is not fun. But, when a child finally gets their turn, it is fun "play" for them!
Play includes singing the ABCs.	• Whenever the teacher uses it as a tool to refocus the children & it becomes boring for them of unnecessary.
	• When students are singing these individually in order to put their spelling words in ABC order.
	• Singing the ABCs is not play when it is being directed by the teacher for a learning opportunity.
	• Singing the ABC's might not be considered play if the child was singing as a means of assessment by the teacher.
Play includes pretending to be a teacher and calling a student "stupid.	• Pretending is a form of play.
Play includes counting to 100.	• When it is done in a non-engaging way.
	• When they are doing a worksheet.
	• This is not play when a guest comes into the classroom and is speaking about something.
	• Counting to 100 is not play when children are simply writing

	information down in a manner that is not engaging.
Play includes being read to.	• One-on-one reading of a non-picture book. • Some children do not enjoy reading and would not consider it play. I had a bad Early Ed experience + reading is still not fun for me, however many enjoy it. • Being read to can not *(sic)* be play when the children are relaxed and just listening to the book.
Play includes centers.	• If one of the centers is doing a worksheet. • This is not play when they are doing something other then what the center is for.
Play includes talking to a friend.	• There are times when students are talking to friends outside of play when discussing class projects or asking a question, etc. • Talking to friends – this could be play during centers, dramatic play etc. This can be not considered play when the students are talking about conflicts.
Play includes working on a puzzle.	• If the child is being forced to do a puzzle when they don't want to.
Play includes doing a science experiment.	• Doing a science experiment may not be play if it is dangerous for children to be near or involved in the process.
Play includes listening to music.	• Listening to music is not play if students are just sitting in a circle listening to it. Students should be up moving around while listening to music. • Listening to music is not play when a teacher has it on to limit noise distractions to help the students get their work done. • Listening to music is often play w/ dancing, etc. but is not play when listening is occurring while students are working quietly. • Music can be fun, you can sing and dance along, but perhaps when children are forced to go to a concert that is not play.
Play includes feeding a classroom pet.	• Feeding the classroom pet is not play or practicing care for another when it is not used in a meaningful way. When it is not used for a purpose or practicing a skill.
Play includes cutting out magazine pictures that begin with the letter "B".	• This can not *(sic)* be seen as play when the activity is basically already done for them (pre-cut, quiet, etc.). • If child is just cutting out pictures w/ letter B and doing nothing else its *(sic)* not play, just a task. • When the teacher asks the student to do this as an assignment or part of a lesson, I view this as a time when it is not play. • This is a fun activity, and play may be involved, but it is helping children develop cognitively.
Play includes listening to a book on tape.	• When the child does not want to listen to the book but they have to because that is their assigned center.

Play includes learning about other cultures.	• This could be done by a teacher lecturing the children about cultures and have nothing to do with play. • Learning about other cultures is not play if the teacher is just talking about other cultures and there are no activities that go along with it. • When learning about cultures the children may have to sit through a presentation or a speaker talking about a new culture. This would not necessarily be considered play. • If students are just sitting down listening to a teacher talk about the different cultures instead of being actively involved and learning through hands on learning experiences. • This is not play when the students are sitting at desks watching a power point or listening to a lecture about different cultures. • This is not play when it is teacher directed and just listening while the teacher relays information.
Play includes eating lunch.	• Eating lunch is not play when teachers do not let students talk. When lunch is silent & there can be no creativity or conversation, there is no play.

CHAPTER V

DISCUSSION

Pre-Service Teacher Ratings of Adjectives Describing Play

The results of the pre-service teacher ratings of adjectives were very widespread and, to a degree, unpredictable. Of the 20 items, the two that were unanimous were "play is a creative process" (all participants indicated that they agreed with this statement) and "play is important for learning" (again, all participants indicated agreement). This is of note, because as previously discussed, both of these descriptors tend to be used in research and teacher education regarding play. The generally-agreed-upon characteristics of play include several that allude to the creative nature of the play process (e.g., "meaningful," "symbolic"; Fromberg, 2002) and this is evidenced in the unanimity of the answers given by the pre-service teachers in this study.

Additionally, it is important to note that all participants believed play to be important for learning. As outlined in Chapter II, the varied benefits of play are inarguable, including but not limited to increases in socioemotional, physical, cognitive, and language skills. It would appear that pre-service teachers' understandings of the importance of play mirror those of researchers in the field (e.g., Copple & Bredekamp, 2009; Fromberg, 2002; Jago, & Fox, 2011). Though specific benefits were not discussed, the fact that all 65 participants believe play is "important for learning" is an indicator that

recognition of the overall significance of play in the early childhood classroom is universal among pre-service teachers in this teacher education program.

The fact that the other 18 items on this part of the survey had a variety of ratings assigned to them helps to support the idea that play is a construct that is difficult to define and that pre-service teachers possess vastly different opinions about what does and does not constitute play. This supports previous research, including the study from which this research drew inspiration, Sherwood and Reifel's 2010 investigation of seven pre-service teachers. Though their research did not look for changes over time, but rather a snapshot of pre-service teacher beliefs about play, their results are similar to those found in the present study due to the diversity of beliefs and opinions found in the participants.

Beyond these noteworthy unanimous answers, there were very few significant results stemming from this area of the research. Nineteen of the items demonstrated no significant differences in the way members of the four different blocks define play. The only item to demonstrate a statistically significant difference, "play is focused on a specific outcome," showed this difference between members of Block I and Block III, with participants in Block III tending to agree more with this statement than participants in Block I. The reasons for this difference were unclear, but may be due to more experiential knowledge of children in play situations – participants in Block III have hundreds of hours of field site experience that Block I participants have not had yet – in which they may have seen more evidence to support the idea that while play may not appear to be purposeful, it serves an important developmental purpose. Additionally, members of this block may be more familiar with the six key tenets of play as outlined by Fromberg (2002), one of which is that play is meaningful, and exists beyond the purpose

of enjoyment; it serves a greater purpose (outcome) in the lives of children.

The factor analysis of the 20 items representing adjectives that describe play successfully reduced the items into five interpretable factors. However, follow-up analyses exploring differences between blocks on these five factors proved to be insignificant. While this lack of statistical significance makes it difficult to discuss between-group differences, it does suggest that perhaps the general beliefs and understandings about what play *is* are not as dynamic as was expected; the lack of differences between blocks may be a result of the static nature of play beliefs over time. Past studies have demonstrated the unlikelihood that pre-existing beliefs can be altered via instruction (e.g., Sanger & Osguthorpe, 2011), but rather, it is personal and educational experiences that are more likely to influence these beliefs. Nevertheless, for the present study it was hypothesized that pre-service teachers in different cohorts may vary in their beliefs about what constitutes play. The results of this research suggest that this is not the case.

One possible explanation for this lack of variation could be centered on this idea that beliefs about play are difficult to change, even with explicit instruction. Another possible explanation is that while each of the blocks is technically experiencing a different piece of the teacher education program, the fact that all four cohorts were enrolled in the same program, had been or were being taught by the same or similarly-minded teacher educators, and had taken the same course about play in early childhood education may have resulted in the striking similarities. It may be that while involved in a teacher education program, pre-service teachers tend to possess relatively unchanging views that can only be altered once they are provided with new experiences from which

to draw conclusions (i.e., becoming practicing teachers with their own classrooms).

Pre-Service Teacher Ratings of Activities that Constitute Play

The unanimity of respondents did not extend to include the activities portion of the survey. None of the 25 items were agreed upon wholly by the participants, and most of the items, as previously mentioned, held the entire range of responses (1-4) regarding if and when the activity constituted play. This goes along with the aforementioned notion that beliefs about play are widespread and difficult to categorize as "correct" or "incorrect" among pre-service teachers and practicing teachers alike, because the construct of play is in and of itself difficult to define (Fromberg, 2002). The fact that there were so many items (80%) in which at least one participant believed the activity was *never* play and at least one participant believed the activity was *always* play is very interesting. These differences cannot be attributed to changing beliefs over time, as there were very few significant differences between blocks; rather, it suggests that these differences are more likely a result of pre-existing assumptions and individual perceptions among participants. This is supported by research finding that pre-service teachers have established beliefs prior to teacher education (e.g., Joram & Gabriele, 1998; Sherwood & Reifel, 2010)

The three items that did produce significant results – "being read to," "doing a science experiment," and "listening to music" – as well as the one item that approached significance – "asking for a turn on the swings" – did not produce these significant results in any predictable way. The differences did not necessarily always occur in a way that would suggest time spent in the program being of significance; differences were found between Block I and IV on one item, Block II and III on another, Block III and IV on a

third, Block I and Block III on still another, etc. There was no predictable pattern for where the statistically-significant differences arose, suggesting that the time spent in the teacher education program was not the driving force behind these differences. However, there are several possibilities regarding why these differences between specific blocks of participants emerged.

The item "being read to" demonstrated a significant difference between Block I and Block IV, with participants in Block III overall categorizing this activity as "more often play" than participants in Block I. This could potentially be a result of literacy being heavily emphasized within this block, as participants were enrolled in a class entitled Literacy Assessment, but participants in Block I were not enrolled in a literacy-specific class. The concept of "reading as playing" is one that finds a lot of support in early childhood education, as it is during these early ages (0-3) that children are developing beginning literacy skills and are also engaged in intense play behaviors (Kummerling-Meibauer, 2011). There is a possibility that participants in Block III were more heavily exposed to this concept than participants in Block I who have yet to take a literacy-specific early childhood education course.

The item "doing a science experiment" once again found Block III participants much more likely to categorize this activity as play than participants in Block II. Additionally, Block III participants were more likely to categorize this item as play when compared to Block IV participants. These differences are surprising, as Block II participants were the only group of the three mentioned to be concurrently enrolled in a science-specific ECE course, but did not tie science learning back to play as often as their counterparts in Block III. Like any belief about play, the differences could be purely

coincidental, with pre-existing beliefs and paradigms among individual block members causing a difference in belief expression.

Block II and Block III had significantly different beliefs about the item "listening to music," with Block III participants once again believing this activity to be play more often than their Block II counterparts. None of the blocks include a course dedicated solely to music in early childhood education, so it is unlikely that this difference is due to the courses the two groups of participants were enrolled in at the time. Potentially, participants in Block III could have had this belief solidified by various field sites, as different blocks are put into different school districts, and different districts may emphasize music as play or not play. It cannot be determined definitively where these differences come from, or if they are even indeed due to variations in field sites.

For the item "asking for a turn on the swings," there was a significant difference between Block I and Block III, but with this item, the participants in Block III categorized this item as frequently play to a lesser degree than Block I did. This might suggest that as participants move later in their teacher education courses, asking for a turn on the swings is considered to be a different type of activity not tied to playfulness. One possibility is that participants in Block III consider this exchange to be more communicative than playful, which may be tied into them having completed a course on social development and interaction that participants in Block I had yet to be exposed to.

The factor analysis of the 25 items representing activities that constitute play successfully resulted in four interpretable, reliable factors. When looking at differences in factors by block, statistically significant differences were found on two factors: Cognitive Activities and Hands-On Activities. Once again, these differences were not found

between necessarily predictable cohorts. The Cognitive Activities factor showed a significant difference between Block I and Block II, with Block I participants rating the combined activities (*singing ABC's, counting to 100, being read to,* and *cutting out pictures that begin with the letter "B"*) as more likely to be play. Additionally, a significant difference was found between Block I and Block IV, with Block I participants once again rating the cognitive items as more likely play than their Block IV counterparts. These differences could be due to Block I participants' enrollment in an introductory play course, in which they may have been put into a mindset that any and all activities are play.

This belief may then wane into a more experience-supported paradigm as participants in Block II and beyond are exposed to field site experiences in which these activities may occur outside the context of play, reinforcing the beliefs of those individuals in later blocks that not all activities occurring in an early childhood classroom are necessarily play-based, depending on how they are presented and received by the children.

For the Hands-On Activities factor, statistically-significant differences were found between Blocks III and IV, with Block III participants rating the combined activities (*physical education, centers, working on a puzzle,* and *doing a science experiment*) as more likely to be play. The closeness in cohorts suggests that these differences are not necessarily a result of time spent in the teacher education program, because if this were the case, differences would be expected at the extremes (Blocks I and IV) or throughout all the blocks, not just in the latter two. A potential explanation could be the fact that Block III participants were concurrently enrolled in a course emphasizing

the integration of curriculum and hands-on activities in the classroom, potentially affecting the mindset of these participants, and consequently the way they approached items involving hands-on experiences in the classroom.

Finally, although no statistically significant differences emerged among blocks on the Negative Activities factor, it is interesting to note that the items comprising this factor ("pretending to be a teacher & calling a student "stupid," "getting one's feelings hurt," "pretending to be a character from a violent movie," and "telling another child s/he cannot join a board game") appear to be activities that a teacher would likely intervene in if s/he saw it occurring in a classroom. Therefore, it may be that these factors loaded together with similarly low means due to the connotation that negative activities occurring in the classroom are "unacceptable" and cannot be considered playful, even though two of the items included the inherently-playful word "pretending." Although pretending is in and of itself a playful act, whether or not an activity is considered "play" in the early childhood classroom may appear to depend on its perceived positivity (or negativity, as the case may be).

Open-Ended Responses

The open-ended response portion of the survey provided unique insight into the reasoning behind participants' decisions to label items as "seldom" or "often" play rather than choosing the more concrete "always" or "never" options. Many items on the survey, though they may have been marked as "seldom play" or "often play," were not selected by participants for inclusion in this portion of the survey. However, there were several items that were chosen unquestionably more often than the others.

For the prompt "*Pick one item where you chose 'Seldom Play' (2) and give an*

example of when this item IS play," the items most often selected were: *play includes reading a book* (10 responses), *play includes singing the ABCs* (6 responses), *play includes looking around while in the hallway* (10 responses), and *play includes counting to 100* (10 responses). For explanations regarding the item *play includes reading a book,* participants expressed a belief that this could potentially be considered "play" if it included a physical or dramatic play activity to accompany the activity of reading (e.g., "acting out the book," "if children are role-playing," "the students [could] create a readers theater," "if there is an activity involved or if the children act the book out," "pretending you are in a library" "[when there] is an extension off of it, such as a reader's theatre or a lively group discussion"). This demonstrates a common trend among these pre-service teachers that reading a book is in and of itself not an inherently playful activity, but when it is accompanied with extensions it can become one.

The item *play includes singing the ABCs* housed a trend where the pre-service teachers emphasized the importance of music and movement in making activities playful (e.g., "if movement is involved," "if it is done to music with movements and a group is involved") and the insistence that play cannot occur if children are not participating in an activity by their own choice and for their own enjoyment (e.g., "if the child chooses to do it on their own or if they are enjoying/having fun doing it," "if a child sings for enjoyment or while 'playing school' this could be considered play," "When the child has chosen to do it w/out a requirement").

For many of the participants elaborating on the item *play includes looking around while in the hallway,* an important talking point was that if children are engaging themselves in a game centered on looking around, this is "play," but simply looking

around is not ("looking around in the highway is not always play if the child goes straight to his/her destination"). Most participants choosing this item mentioned something to the effect of using one's imagination and finding enjoyment in whatever is being looked at (e.g., "when playing I Spy," "if used effectively as an educational game or brain break," "when a child is looking around and using their imagination about what they see," "using his/her imagination to create a new scene").

Finally, the responses to *play includes counting to 100* were similar in nature to the responses for *play includes reading a book,* because participants explained that the activity of counting must be accompanied with something to make it more enjoyable. Additionally it also shared similarities to the responses for the item *play includes singing the ABCs,* as many participants cited the importance of music and movement in their explanations. Examples of participants' responses include: "like doing an activity as a class or singing & dancing to 100," "if there is music/dance involved, manipulatives, or if it is based around an interactive game," "in order to play a game or as in role playing," "it can be made fun by associating it with a fun & active song or movement with a piece/game," "by singing songs, reading stories, or during any type of play."

For all four of these items, the common thread shared was that some activities that are not necessarily inherently playful can be made so by incorporating movement, music, dramatic play, or otherwise fundamentally play-based activities to accompany the original activity. It was suggested in many of the respondents' explanations that without the addition of these extension activities or modifications, play would not be occurring. When writing about the item *play includes counting to 100,* one participant explained that "counting to 100 is seldom play because they are simply counting. I believe that counting

can be turned into a fun, engaging game if the teacher facilitates that type of learning."

On a similar note, one participant explained on the item *play includes singing the ABCs*

that "singing is play if the child chooses to do it on their own or if they are

enjoying/having fun doing it. If they're being forced to sit down + sing when they don't

want to – I don't consider this play." Emphasizing choice and enjoyment were important

for the majority of pre-service teachers responding to these items, which is of note

because these are two facets of the widely-accepted six key elements of play: play is

voluntary, and play is fun (Fromberg, 2002).

For the prompt "*Pick one item where you chose 'Often Play' (3) and give an

example of when this item is NOT play*," the items most often selected were: *play

includes dancing* (7 responses), *play includes arts and crafts* (7 responses), *play includes

reading a book* (8 responses), *play includes P. E. (Physical Education)* (7 responses), and

play includes learning about other cultures (6 responses).

For the item *play includes dancing,* participants expressed a belief that dancing

for pleasure was very different than dancing for accuracy or for any kind of competition.

These participants explained that dancing is not playful if "performing a routine learned

in dance class such as tap, jazz, ballet, lyrical, etc.," "children are involved in competitive

dance routines, in which it turns into more business than play," "doing a serious

choreographed dance [that] might be less play and more work," or "a child is required to

dance but shows no intrests *(sic).*" The important element in dancing as play, according

to this group of pre-service teachers, evidently lies in its unstructured nature, as

participants did not feel that choreographed dance routines were an example of playing.

Responses to the item *play includes arts and crafts* focused heavily on the

insistence that children must be given free reign when participating in these types of activities or they cannot be considered play. Heavily structured arts and crafts were often cited as an example of when this activity loses its playfulness (e.g., "when it is directed by the teacher, step by step what the child should do and what their finished product should look like," "not when it is used as a teacher directed activity and has very set rules that do not allow the students to be creative or explore," "when a teacher forces the children to do the arts/crafts then expects it to look a certain way," "when there are specific rules that must be followed & when children are not allowed to be creative"). One participant explained that when a teacher structures arts and crafts, and children are not permitted to be creative, "it just becomes school work."

Play includes reading a book was an item that was chosen by the majority of participants for both the "seldom" and "often" categories, suggesting that the relationship between literacy and play is a complicated one, and that context and application are important when determining whether a literacy activity is also playful. Participants choosing this item believed that reading a book was often play, but not under circumstances where the reading occurs for strictly academic purposes or is not done by choice (e.g., "reading a text book for an assignment," "if they're being made to sit down + listen then it is not play," "if the child is simply reciting & decoding sounds," "when the children are forced to sit down and read even when they do not want to, this becomes boring & not fun"). This important aspect of choice and enjoyment was also present in the answers participants gave when explaining when reading a book *is* play.

The item *play includes P.E. (Physical Education)* found participants citing experiences (whether personal or from observations at field sites) as examples of when

P.E. cannot be considered play: "the children are usually allowed to play games and with the balls while other times the children have work out or running days," "when they are running laps or doing pushups," "when a coach/instructor makes students complete physical tasks against their will," "the presidential fitness test," or "when the students are being assessed on something particular (i.e. running time)." Once again, the element of choice was very important to these pre-service teachers, who generally agreed that if a child is being made to do something they do not enjoy, this activity cannot be considered play, even if it might be playful under different circumstances. One participant explained that "conditioning students to do push-ups/sit-ups is not a choice and is not always enjoyable for some," suggesting that for those students who do enjoy conditioning activities, this may be considered play, but not for a student who does not like them.

Finally, for the item *play includes learning about other cultures,* participants expressed a belief that play disappears when a teacher is simply instructing without offering students a chance for active involvement. All six participants who chose this item to expand upon unanimously agreed upon this idea, with all of them mentioning something to the effect of students needing to be actively involved in order for play to occur ("this could be done by a teacher lecturing the children about cultures and have nothing to do with play," "learning about other cultures is not play if the teacher is just talking about other cultures and there are no activities that go along with it," "when learning about cultures the children may have to sit through a presentation or a speaker talking about a new culture," "if students are just sitting down listening to a teacher talk about the different cultures instead of being actively involved and learning through hands on learning experiences," "this is not play when the students are sitting at desks watching

a power point or listening to a lecture about different cultures," "this is not play when it is teacher directed and just listening while the teacher relays information.")

Overall, the responses to the items in this part of the questionnaire showed similar trends to those in the "seldom play" section; participants emphasized the importance of choice and enjoyment, suggesting that a lack of either results in a lack of play. Once again, this is supported by research (e.g., Fromberg, 2002) and demonstrates a basic understanding of pre-service teachers about two of the most important aspects of play.

Limitations

The present study has some limitations. First and foremost, the relatively small sample size makes the findings difficult to generalize beyond this sample. Likewise, all participants in the study had completed a course targeting play in the early childhood classroom, which may have altered personal views on play that may have existed otherwise. Generalizability of the findings is also limited by the fact that all blocks of pre-service teachers are members of the same teacher education program and under the guidance of the same or a similar group of instructors. Having instructors with similar philosophies could potentially affect findings because participants were not exposed to a variety of viewpoints from which to formulate their own opinions; this increases the likelihood that their beliefs are more similar in nature than they would be otherwise. Additionally, unequal cell sizes were a limitation when it came to some of the analyses, as it was difficult to accurately compare a subset of nine pre-service teachers with one of twenty-five. While efforts were made to control for the unequal cell sizes and some significant findings indeed emerged, they should be interpreted with caution.

Furthermore, the possibility of Type I error must be acknowledged, as the number

of ANOVAs conducted was high.

Another possible limitation of the study lies in its cross-sectional nature. Because the cohorts were not followed across time, it could be that there are qualitative differences among groups that were not identified in this study but may have been identified if the groups were followed over a length of time. This is especially of note because of the evidence suggesting that changes in beliefs occur on an individual level; looking for differences between four cohorts may have produced little evidence of possible change, but following one cohort over time may produce changes at the individual, rather than group, level. Future research could employ this method.

Finally, the instrument used for this study was created by the researcher using the results from a similar exploratory study done by Sherwood and Reifel (2010). Though an attempt to create construct validity was attempted, it was unsuccessful. This lack of construct validity can be cited as a limitation of this study, as it cannot yet be shown that the 45 items on the two surveys did indeed measure pre-service teachers' perceptions of play without it.

Implications

Researchers and early childhood educators have long insisted that the concept of play is an inherently ambiguous one, impossible to define and existing as a stable structure in the lives of all individuals, whether they are active participants or simply observers forming and altering paradigms about its characteristics. The purpose of this research was to investigate the extent that pre-service teachers' beliefs (assumptions and perceptions) about children's play in the classroom differ among cohorts in a teacher education program.

As supported by previous research, there is a lack of unanimity regarding what play is, what it looks like in the early childhood classroom, and what activities do and do not constitute play. While this is nothing novel, it does help to solidify the notion that teacher education programs must approach each pre-service teacher with the understanding that he or she has unique and individual experiences that have helped form his or her understanding of play, and these are not likely to change on their own. While researchers have, as explained above, generally found that play as a construct is difficult to explain and even more difficult to measure, it still may be that teacher education programs make assumptions regarding what pre-service teachers "should" feel about play and do little to address these assumptions in a meaningful way. Assuming validity of the instrument, this research has helped to demonstrate that beliefs about play are extremely varied among pre-service teachers, and that this variation remains relatively steady throughout teacher education. It is *not*, therefore, the case that pre-service teachers enter teacher education programs with diverse beliefs and over time begin to gravitate toward a general consensus regarding what is and is not "play." This is important for those in teacher education to recognize and plan for, because operating under the assumption that all pre-service teachers share beliefs about play is ignoring important potential learning opportunities.

For pre-service teachers themselves, these findings are noteworthy because they help to further demonstrate the widely-varied beliefs about play in a context that is more meaningful – it is not researchers and textbooks stating that beliefs about play are diverse, but this idea is supported via data from actual pre-service teachers. It is important that pre-service teachers recognize the differing views of others, and that it is not only

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individuals in other teacher education programs at other universities who demonstrate – sometimes extremely – dissimilar views; two individuals who have been enrolled in the exact same courses for the entirety of their education program can (and often do) have completely opposite viewpoints regarding children's play. This highlights the importance of prior knowledge, individual experiences, and the key differences in paradigms that result in vastly different opinions on the same topic.

Finally, these findings are not only applicable to teacher education and pre-service teachers, but also to practicing (in-service) classroom teachers. It can be safely assumed that not everything learned during the process of teacher education is put into practice, and that important paradigm changes may occur between the completion of teacher education and actual classroom teaching. However, it is still important that classroom teachers also recognize the diversity in beliefs about play among themselves and understand that these beliefs are difficult to change, even via intense and explicit instruction on the subject. While some paradigm shifts may occur as a result of experience (as experiences are generally how these paradigms are created in the first place), classroom teachers may find themselves operating using the same beliefs about play that they have held since before they entered a teacher education program, simply because these assumptions are difficult to change.

All teachers should be made aware of the ambiguity surrounding beliefs about play, the fact that these views are difficult to change over time, and the knowledge that even teachers with extremely similar backgrounds and educational opportunities may possess completely different belief systems, and this does not make one "right" and the other "wrong." Finally, practicing classroom teachers should be encouraged to reevaluate

their own beliefs periodically by conferring with others and gaining understanding about beliefs that are different from their own in order to increase their own effectiveness regarding play in the early childhood classroom.

Future Research Directions

Just as this investigation was extended from previous research done using one small group of pre-service teachers to investigate their perceptions of play, it can be further extended to include additional levels of pre-service and in-service teachers. Although the differences among the four blocks of pre-service teachers were minimal, there is potential for differences to be found between this group of pre-service teachers as a whole and individuals both behind and ahead of them in their teaching careers. Future research could possibly include individuals interested in teaching but not yet enrolled in teacher education courses, to identify potential changes that occur in assumptions and perceptions upon entering a teacher education program. Additionally, using a longitudinal format (as previously discussed) would allow researchers to observe changes over time.

Thirdly, it is recommended that future research also include data from practicing teachers, including both first-year and veteran teachers. The inclusion of this subset of participants would allow researchers to investigate how beliefs about play change when hypothetical situations and observations are replaced with real-life experiences teaching in a classroom. Including one or both of these additional groups could provide the discrepancies in beliefs predicted but not found in the present study. It seems that beliefs about play are generally very similar even in the subsets of a teacher education program, but there may be significant differences between members of the teacher education group as a whole and individuals outside of it but within the same profession and general frame

of mind.

Finally, as previously discussed, the instrument used in this research was created by the researcher and its construct validity has yet to be determined. It is recommended that future research be done with this instrument in order to gather more data via these 45 items in an attempt to establish validity. Additionally, although the second instrument used in an attempt to establish construct validity provided no helpful results, future researchers may find another instrument that is more helpful to pair with the original one used here in order to ascertain this validity.

Conclusion

The construct of play is a difficult one to define and measure accurately, largely due to its inherently complex nature and the subjectivity that surrounds it. Research in the past has found that definitions of play vary widely depending on context and the previously-existing assumptions and perceptions of the individual defining it. For these reasons, identifying and examining these assumptions is important for pre-service teacher educators in order to more effectively share new information regarding play in the early childhood classroom.

While it may not be the case that beliefs about play change extensively over the period of time that a pre-service teacher is engaged in an accredited teacher-education program, there is sufficient evidence in this study to support the notion that a group of demographically- and educationally-similar individuals will still hold extremely different views on what play is and what it consists of in the early childhood classroom. This wide variety of opinions is undoubtedly a result of the aforementioned assumptions and perceptions that pre-service teachers hold, based on prior knowledge and experiences,

and it does not appear that these beliefs can be easily changed by teacher educators, even with courses devoted specifically to play in the classroom.

With this knowledge in mind, it appears that teacher educators must investigate these pre-existing beliefs and address them in order to effect any changes in the minds of pre-service teachers. Future research on the subject will hopefully yield more information on how explicitly addressing pre-existing assumptions is associated with paradigm changes in pre-service early childhood education teachers.

REFERENCES

Ailwood, J. (2003). Governing early childhood education through play. *Contemporary Issues in Early Childhood, 4*, 286-299. doi:10.2304/ciec.2003.4.3.5

Anderson, L. M., Shinn, C., Fullilove, M. T., Scrimshaw, M. C., Fielding, J. E., Normand, J., & Carande-Kulis, V. G. (2003). The effectiveness of early childhood development programs: A systematic review. *American Journal of Preventative Medicine, 24*(3), 32-46. doi:10.1016/S0749-3797(02)00655-4

Barnett, L. (1990). Developmental benefits of play for children. *Journal of Leisure Research, 22*(2), 138-153.

Bennett, N., Wood, E., & Rogers, S. (1997). *Teaching through play: Teachers' thinking and classroom practice*. United Kingdom: Open University Press.

Blake, B. & Pope, T. (2008). Developmental psychology: Incorporating Piaget's and Vygotsky's theories in classrooms. *Journal of Cross-Disciplinary Perspectives in Education, 1*(1)*,* 59-67.

Bodrova, E. & Leong, D. J. (2007). *Tools of the mind: The Vygotskian approach to early childhood education* (2nd ed.). The University of Michigan: Pearson/Merrill Prentice Hall.

Brockman, R., Jago, R. P., & Fox, K. R. (2011). Children's active play: Self-reported motivators, barriers, and facilitators. *BMC Public Health, 11*(461), 1-7. doi:10.1186/1471-2458-11-461

Catano, F. N. (2003). *Exploring childcare worker assumptions about caring and their implications for service in a residential care facility*. (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses (PQDT).

Chaiklin, S. (2003). The zone of proximal development in Vygotsky's analysis of learning and instruction. In A. Kozulin, B. Gindis, V. S. Ageyev, & S. M. Miller (Eds.), *Vygotsky's educational theory in cultural context* (pp. 39-64). Cambridge, MA: Cambridge University Press. doi:10.1017/CBO9780511840975.004

Christie, J. F. (1983). The effects of play tutoring on young children's cognitive performance. *The Journal of Educational Research, 76* (6), 326-330.

Cochran-Smith, M., & Lytle, S. L. (2006). Troubling images of teaching in no child left behind. *Harvard Educational Review, 76* (4), 668-726.

Cooney, M. H. (2004). Is play important? Guatemalan kindergartners' classroom experiences and their parents' and teachers' perceptions of learning through play. *Journal of Research in Childhood Education, 18*(4), 261-277.

Copple, C., & Bredekamp, S. (Eds.). (2009). *Developmentally appropriate practice in early childhood programs: Serving children from birth through age 8* (3rd ed.). Washington, DC: National Association for the Education of Young Children.

Darling-Hammond, L. (2006). Constructing 21st-century teacher education. *Journal of Teacher Education, 57*, 1-15. doi:10:1177/0022487105285962

DeVinne, P. B. (Ed.). (1982). *The American heritage dictionary* (2nd college ed.). Boston, MA: Houghton Mifflin.

Donaghue, H. (2003). An instrument to elicit teachers' beliefs and assumptions. *English Language Teaching Journal, 57*, 344-351. doi:10.1093/elt/57.4.344

Doyle, W., & Carter. K. (2003). Narrative and learning to teach: Implications for teacher

    education, *Journal of Curriculum Studies, 35*(2), 129-137.

    doi:10.1080/0022027022000023053

Drake, S. M., & Burns, R. C. (2004). *Meeting standards through integrated curriculum*.

    Alexandria, VA: Association for Supervision and Curriculum Development.

Fabes, R. A., Martin, C. L., & Hanish, L. D. (2003). Young children's play qualities in

    same-, other-, and mixed-sex peer groups. *Child Development*, 74, 921-932.

    doi:10.1111/14678624.00576

Fajet, W., Bello, M., Leftwich, S. A., Mesler, J. L., & Shaver, A. N. (2005). Preservice

    teachers' perceptions in beginning education classes. *Teaching and Teacher*

    Education, 21, 717-727. doi: 10.1016/j.tate.2005.05.002

Fromberg, D. P. (2002). *Play and meaning in early childhood education*. Boston, MA:

    Allyn & Bacon.

Frost, J. L., Wortham, S. C., & Reifel, S. (2012). *Play and child development* (4th ed.).

    Upper Saddle River, NJ: Pearson.

Hart, L. (2012). Preservice teachers' beliefs and practice after participating in an

    integrated content/methods course. *School Science and Mathematics, 102*(1), 4-

    14. doi:10.1111/j.1949-8594.2002.tb18191.x

Hirsch-Pasek, K., & Golinkoff, R. M. (2008). Why play = learning. In R. E. Tremblay, R.

    G. Barr, R. D. Peters, & M. Boivin (Eds.). *Encyclopedia on early childhood*

    development (1-7). Montreal: Quebec Centre of Excellence for Early Childhood

    Development,.

Joram, E., & Gabriele, A. J. (1998). Preservice teachers' prior beliefs: Transforming

obstacles into opportunities. *Teaching and Teacher Education, 14*, 175-191.

    doi:10.1016/S0742-051X(97)00035-8

Klugman, E. (1996). The value of play as perceived by Wheelock College freshmen. In

    A. L. Phillip (Ed.), *Topics in early childhood education (vol. 2): Playing for*

    keeps: Supporting young children's play (pp. 13-30). St. Paul, MN: Redleaf Press.

Kozulin, A. (2004). Vygotsky's theory in the classroom: Introduction. *European Journal*

    of Psychology of Education, 19(1), 3-7. doi:10.1007/BF03173233

Kummerling-Meibauer, B. (2011). *Emergent literacy: Children's books from 0 to 3.*

    Amsterdam, The Netherlands: John Benjamins.

Lever, J. (1976). Sex differences in the games children play. *Social Problems, 23*, 478-

    487. doi:10.2307/799857

Lillard, A. S., Pinkham, A., & Smith, E. D. (2011). Pretend play and cognitive

    development. *The Wiley-Blackwell handbook of childhood cognitive development*,

    32, 285. doi:10.1002/9781444325485.ch11

Mandler. J. M. (2014). *Stories, scripts, and scenes: Aspects of schema theory.* United

    Kingdom: Psychology Press.

Meins, E., Fernyhough, C., Arnott, B., Leekam, S. R., & Rosnay, M. (2013). Mind-

    mindedness and theory of mind: Mediating roles of language and perspective

    symbolic play. *Child Development, 84*(5), 1777-1790. doi:10.1111/cdev.12061

No Child Left Behind (NCLB) Act of 2001, Pub. L. No. 107-110, § 115, Stat. 1425

    (2001).

Pajares, M. F. (1992). Teachers' beliefs and educational research: Cleaning up a messy

construct. *Review of Educational Research, 62*, 307-332.

doi:10.3102/00346543062003307

Pate, R. R., Pfeiffer, K. A., Trost, S. G., Ziegler, P., & Dowda, M. (2004). Physical

activity among children attending preschools. *Pediatrics*, *114*(5), 1258-1263.

Pellegrini, A. D. (1988). Elementary school children's rough-and-tumble play and social

competence. *Developmental Psychology, 24*, 802-806. doi:10.1037//0012-

1649.24.6.802

Pellegrini, A. D. (2009). Research and policy on children's play. *Child Development

Perspectives, 3*, 131-136. doi:10.1111/j.1750-8606.2009.00092.x

Pellegrini, A. D., & Bjorklund, B. F. (2004). The ontogeny and phylogeny of children's

object and fantasy play. *Human Nature, 15*(1), 23-43.

doi:10.1007/s12110-004-1002-z

Pellegrini, A. D., Dupuis, D., & Smith, P. K. (2007). Play in evolution and development.

Developmental Review, *27*(2), 261-276. doi:10.1016/j.dr.2006.09.001

Pellegrini, A. D., & Smith, P. K. (1998). Physical activity play: The nature and function

of a neglected aspect of play. Child Development, 69, 577-598.

doi:10.1111/j.1467-8624.1998.tb06226.x

Ranz-Smith, D. (2007). Teacher perception of play: In leaving no child behind are

teachers leaving childhood behind? *Early Education and Development, 18,* 271-

303. doi:10.1080/10409280701280425

Rieber, L. P. (1996). Seriously considering play: Designing interactive learning

environments based on the blending of microworlds, simulations, and

games. *Educational Technology Research & Development*, *44*(2), 43-58.

Sanger, M. N., & Osguthorpe, R. D. (2011). Teacher education, preservice teacher

    beliefs, and the moral work of teaching. *Teaching and Teacher Education, 27,*

    569-578. doi:10.1016/j.tate.2010.10.011

Saracho, O. N., & Spodek, B. (2006). Young children's literacy-related play. *Early*

    Childhood Development and Care, 176(7), 707-721.

    doi:10.1080/03004430500207021

Sherwood, S. A., & Reifel, S. (2010). The multiple meanings of play: Exploring

    preservice teachers' beliefs about a central element of early childhood education.

    Journal of Early Childhood Teacher Education, 31, 322-343.

    doi:10.1080/10901027.2010.524065

Spinrad, T. L., Eisenberg, N., Harris, E., Hanish, L., Fabes, R. A., Kupanoff, K.,

    Ringwald, S., & Holmes, J. (2004). The relation of children's everyday nonsocial

    peer play behavior to their emotionality, regulation, and social functioning.

    Developmental Psychology, *40*(1), 67-80. doi:10.1037/0012-1649.40.1.67

Stone, S. J. (2009). Language and literacy development through primary sociodramatic

    play. *Childhood Education, 82*(2), 96G-96J.

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological*

    processes. Cambridge, MA: Harvard University Press.

Webster-Stratton, C. & Reid, M. J. (2004). Strengthening social and emotional

    competence in young children: The foundation for early school readiness and

    success. *Infants and Young Children, 17*(2), 96-113. doi:10.1097/00001163-

    200404000-00002

APPENDIX A
IRB Approval

Oklahoma State University Institutional Review Board

Date: Thursday, April 10, 2014

IRB Application No HE1427

Proposal Title: Early Childhood Education Pre-Service Teachers' Concepts of Play Over Time

Reviewed and Processed as: Exempt

Status Recommended by Reviewer(s): Approved   Protocol Expires: 4/9/2017

Principal Investigator(s):

Megan Lewis
428 Dauphin Ave
Edmond, OK 73034

Amy Halliburton Tate
OSU Tulsa 1114 Main Hall
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The IRB application referenced above has been approved. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in section 45 CFR 46.

☐ The final versions of any printed recruitment, consent and assent documents bearing the IRB approval stamp are attached to this letter. These are the versions that must be used during the study.

As Principal Investigator, it is your responsibility to do the following:

1. Conduct this study exactly as it has been approved. Any modifications to the research protocol must be submitted with the appropriate signatures for IRB approval. Protocol modifications requiring approval may include changes to the title, PI advisor, funding status or sponsor, subject population composition or size, recruitment, inclusion/exclusion criteria, research site, research procedures and consent/assent process or forms
2. Submit a request for continuation if the study extends beyond the approval period. This continuation must receive IRB review and approval before the research can continue.
3. Report any adverse events to the IRB Chair promptly. Adverse events are those which are unanticipated and impact the subjects during the course of the research; and
4. Notify the IRB office in writing when your research project is complete.

Please note that approved protocols are subject to monitoring by the IRB and that the IRB office has the authority to inspect research records associated with this protocol at any time. If you have questions about the IRB procedures or need any assistance from the Board, please contact Dawnett Watkins 219 Cordell North (phone: 405-744-5700, dawnett.watkins@okstate.edu).

Sincerely,

Shelia Kennison, Chair
Institutional Review Board

APPENDIX B
Participant Information Sheet

Project Title:	Early Childhood Education Pre-Service Teachers' Concepts of Play Over Time
Investigators:	Megan Lewis and Dr. Amy Tate
Purpose:	This study will attempt to extend the knowledge base on pre-service teachers' assumptions about and perceptions of play, in order to better inform teacher education practices and general understandings about how pre-existing mental frameworks about play affect teachers even before they enter a classroom.
Procedures:	You will be asked to provide demographic information and complete three questionnaires. There is an anticipated completion time of about *15-20 minutes*.
Risks of Participation:	There are *no known risks* associated with this project which are greater than those ordinarily encountered in daily life.
Benefits:	Mrs. Lewis and Dr. Tate hope to add to the existing research regarding pre-service teachers' perceptions of play in the early childhood classroom and how these change as students move through their teacher education program. Understanding how pre-service teacher beliefs about play change over time will help to make teacher education programs more effective in teaching about play.
Confidentiality:	Confidentiality protections the investigators plan to use include:

Confidentiality protections the investigators plan to use include:

- Paper research records will be stored securely in a locked filing of the principal investigator and no one other than the principal investigator will have any access to the data obtained;
- Additionally, electronic research records will be stored on a password-protected computer belonging to the principal investigator
- Data files will be destroyed by August 1, 2014; and
- Data reported in any written results will be aggregated and statistically analyzed, and will not include information that will identify you.

There are no foreseeable risks in maintaining confidentiality.

Compensation:	Compensation will not be offered for this research study.
Contacts:	*Amy Tate, Ph.D.: 918-594-8169, amy.tate@okstate.edu* *Megan Lewis, BS: 405-762-6126, megan.reynolds@okstate.edu* If you have any questions about your rights as a research volunteer, you may contact **Dr. Shelia Kennison**, IRB Chair, 219 Cordell North, Stillwater, OK 74078, 405-744-3377 or irb@okstate.edu.
Participant Rights:	Participation is voluntary and subjects can discontinue the research activity at any time without reprisal or penalty. There are no risks to subjects who might withdraw. We hope that you will answer all questions as truthfully as you can.

I have read and fully understand the information sheet. I understand that all information I provide is strictly confidential and will be used for this research study purpose only. I also understand that I will remain anonymous throughout the course of this research study. I am free to discontinue participation during data collection at any time.
My agreement to participate in this research study is signified by my participation.

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APPENDIX C
Questionnaires

Questionnaires for Study

1. How old are you?

   18 years _____

   19 years _____

   20 years _____

   21 years _____

   22 years _____

   Other (please specify): _____

2. What is your gender?

   Male _____

   Female _____

3. What is your current college classification?

   Freshman (0-29 credit hours) _____

   Sophomore (30-59 credit hours) _____

   Junior (60-89 credit hours) _____

   Senior (90+ credit hours) _____

4. What is your current major?

   _____

   _____

5. What is your ethnicity?

   Caucasian _____

   African American _____

   Native American _____

   Hispanic _____

   Asian _____

   Other (please specify) _____

6. Were you born in the United States?

   Yes _____

   No _____

   If no, what is your country of origin?

   _____

7. Are you currently enrolled in or have you already completed the course Creative Expression and Play?

   Yes _____

   No _____

Directions: Think about characteristics of children's play in an early childhood classroom. Then, decide how you feel about each of the following statements, and circle your answer as follows:

1	**2**	**3**
Disagree	**Neutral**	**Agree**

Play is...

1. something children do because they want to……………… 1   2   3
2. a creative process……………………………………..…… 1   2   3
3. imaginative………………………………………………… 1   2   3
4. enjoyable for those involved………………………….… 1   2   3
5. serious ………………………………………………..…… 1   2   3
6. focused on a specific outcome…………………………..…… 1   2   3
7. physically active…………………… ……………….... 1   2   3
8. socially interactive…………………………………….… 1   2   3
9. academic…………………………………………………… 1   2   3
10. a reward………………………………………………….... 1   2   3
11. passive learning……………………………………….... 1   2   3
12. driven by rules………………………………………….... 1   2   3
13. relaxing…………………………………………………….. 1   2   3
14. difficult for the teacher to find time for…………………… 1   2   3
15. important for learning …………………………………... 1   2   3
16. teacher-directed………………………………………… 1   2   3
17. educational………………………………………………… 1   2   3
18. stimulating……………………………………………… 1   2   3
19. the job of the teacher…………………………………… 1   2   3
20. something that can be done alone…………………….. 1   2   3

Adapted from: Sherwood, S. A., & Reifel, S. (2010). The multiple meanings of play: Exploring preservice teachers' beliefs about a central element of early childhood education. *Journal of Early Childhood Teacher Education, 31*, 322-343.

Directions: Think about early childhood classroom activities that you believe count as children's play. Decide how you feel about each of the following statements and circle your answer as follows:			
1	**2**	**3**	**4**
Never Play	**Seldom Play**	**Often Play**	**Always Play**

1. dancing…………………………………………… 1 2 3 4

2. arts and crafts………………..…………………... 1 2 3 4

3. reading a book………………..…………………... 1 2 3 4

4. P.E. (Physical Education) …………………..……... 1 2 3 4

5. show-and-tell………………………………..…… 1 2 3 4

6. asking for a turn on the swings……………………... 1 2 3 4

7. singing the ABCs………………….…………….… 1 2 3 4

8. looking around while in the hallway…………………. 1 2 3 4

9. pretending to be a teacher and calling a student "stupid" 1 2 3 4

10. counting to 100………………………………….… 1 2 3 4

11. being read to………………….…………………… 1 2 3 4

12. centers…………………………..………………….. 1 2 3 4

13. talking to a friend……………….………………..… 1 2 3 4

14. working on a puzzle………………….……………... 1 2 3 4

15. doing a science experiment…………………………... 1 2 3 4

16. listening to music…………………..………………. 1 2 3 4

17. feeding a classroom pet………………..…………… 1 2 3 4

18. cutting out pictures that begin with the letter "B……....1 2 3 4

19. listening to a book on tape…………………………... 1 2 3 4

20. figuring out how to join a group already in an activity. 1 2 3 4

21. getting one's feelings hurt…………………………… 1 2 3 4

22. learning about other cultures……………….…………1 2 3 4

23. pretending to be a character from a violent movie…… 1 2 3 4

24. eating lunch…………………….…………………… 1 2 3 4

25. telling another child that s/he cannot join a board game 1 2 3 4

Adapted from: Sherwood, S. A., & Reifel, S. (2010). The multiple meanings of play: Exploring preservice teachers' beliefs about a central element of early childhood education. *Journal of Early Childhood Teacher Education, 31*, 322-343.

Look at your responses to the 25 items that describe early childhood classroom activities.

Pick one item where you chose "Seldom Play" (2). List the item number in the space below, then give an example of when this item IS play.

Item #_____

_____

_____

_____

_____

_____

Look at your responses. Pick one item where you chose "Often Play" (3). List the item number in the space below, then give an example of when this item is NOT play.

Item #_____

_____

_____

_____

_____

_____

1. In their own homes, children should be able to choose to play:

       A. After homework or assigned household tasks are done.
       B. As soon as he or she gets home from school.
       C. Only on the weekends.
       D. Not at all.

2. Play is something that a child does:

       A. With adults, such as parents or grandparents.
       B. With other children in the neighborhood.
       C. With other children at school.
       D. All of the above.

3. When at school, children should play:

       A. Only during the break at school (during recess).
       B. As part of the classroom learning activities the teacher designs.
       C. Only after they finish their assigned school work.
       D. Any time other than when they are doing learning activities.

4. The best way for children in Pre-primary (Kindergarten) classes to learn is:

       A. By teacher directed instruction.
       B. By child directed activities.
       C. By a combination of teacher directed and child directed activities.

5. Classrooms for Pre-primary (Kindergarten) children should:

       A. Have rows of desks.
       B. Have groupings of tables and chairs.
       C. Have learning centers for children to explore.
       D. Have a combination of learning centers and desks or tables.

6. Children learn best in Pre-primary (Kindergarten) classes when:

    A. They have opportunities to get up and move around in the classroom during a lesson.
    B. They stay in a whole group activity at their desks.
    C. They follow the steps of an activity modeled by the teacher.
    D. All of the above.
    E. None of the above.

7. Play helps children:

    A. Develop new vocabulary.
    B. Understand complex concepts about the world around them.
    C. Develop imagination and creativity.
    D. All of the above.
    E. None of the above.

8. Play helps children:

    A. Learn to cooperate with other children.
    B. Express their emotions.
    C. Develop strength and motor skills.
    D. Appreciate diversity in others.
    E. All of the above.
    F. None of the above.

9. School should provide children with:

    A. A structured, academic environment.
    B. A play-oriented learning environment.
    C. A balance of learning through play and structured academics.

Adapted from: Cooney, M. H. (2004). Is play important? Guatemalan kindergartners' classroom experiences and their parents' and teachers' perceptions of learning through play. *Journal of Research in Childhood Education, 18*(4), 261-277.

THANK YOU!

VITA

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