DIFFERENCES IN KINDERGARTENERS' ACADEMIC REFERRALS AND BEHAVIORAL REFERRALS IN PLAY-BASED AND NON-PLAY-BASED CLASSROOMS

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DIFFERENCES IN KINDERGARTENERS' ACADEMIC REFERRALS AND BEHAVIORAL REFERRALS IN PLAY-BASED AND NON-PLAY-BASED CLASSROOMS

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DIFFERENCES IN KINDERGARTENERS' ACADEMIC REFERRALS AND BEHAVIORAL REFERRALS IN PLAY-BASED AND NON-PLAY-BASED CLASSROOMS

A Dissertation

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ABSTRACT

Early childhood educators are faced with giving students the best start in education and preparing them for their futures. To properly prepare students for their future, kindergarten students need the opportunity to learn and grow in developmentally appropriate ways. This, coupled with studies showing the positive effects play has on students' academic and behavior, has spurred educators to reflect on their instructional practices and curriculum opportunities they provide to students. The increase of academic pressures in kindergarten classrooms require teachers to find a balance of developmentally appropriate activities and rigorous instruction to ensure student achievement increases and students are learning acceptable behaviors and social interactions. Teachers' instruction and activities needed during a student's kindergarten experience could contribute to the academic support, behaviors and overall experiences a student has in their early learning years. Knowing the importance and developmental appropriateness of play being incorporated into early childhood curriculum, this study was conducted to identify the differences between Missouri kindergarten classrooms who used play-based learning and those who did not on students' academics and behavior through examining their behavioral and academic referrals. This study surveyed kindergarten teachers to determine the number of academic and behavioral referrals in classrooms that used play-based or non-play-based learning as well as the reason behind them. The survey also included open-ended questions to determine common themes amongst kindergarten teachers regarding academics and behavior. The hopes of this study were that key impacts about play-based learning would be identified and prioritized to help others when developing curriculum and instruction in kindergarten classrooms.

CHAPTER ONE

INTRODUCTION

John Dewey (1916) believed the aim of education was to enable individuals to continue their education and the capacity for growth was the object and reward of learning. As Dewey described, education must be focused on enabling individuals to build a love for learning. In education, this starts by giving children the best possible early childhood experience and education. Over the last decade, research on early childhood education and brain development has focused on the importance of laying a solid foundation in the early years of a child's life for improved learning in the later years (Mustard, 2006).

In a report that detailed evidence from neuroscience, developmental psychology, and the educational field of study, the foundation for lifelong learning, behavior, and health is set by early brain development (Mustard, 2006). Evidence showed a child's brain development is connected to early years education and experience. Mustard (2006) demonstrated there are critical periods when a young child requires appropriate stimulation for the brain to establish the neural pathways for optimum development. Many of these critical periods are over or waning by the time a child is 6 years old (Dewey, 1997). Knowing the importance of brain development at a young age, early childhood educators need to provide students with curriculum that promotes this appropriate development. Curriculum that is often used incorporates play, which allows students the opportunity to learn and grow.

Play and Child Development

The form of play in which a child should engage has certainly been a debate, but early childhood educators agree that a child's development needs to incorporate some aspect of play. According to the National Association for the Education of Young Children (NAEYC, 2015), play allows children to learn about our world, control and express emotions, develop their symbolic representation capabilities, and socially interact in a safe environment. The social, emotional, physical, and cognitive well-being of our children and youth is molded by play (Ginsburg, 2007). Play allows children to create and explore a world in which they can succeed, practice later life skills, and conquer fears in a controlled, safe environment. The United Nations High Commission for Human Rights recognized play as a right for every child (Ginsburg, 2007). The need for play in a child's life has rarely been criticized in early childhood education.

There is an abundance of child development research demonstrating not only play's importance, but also identifying the benefits play brings to growth, understanding, and development in people of all ages (Riek, 2014; Riley, 2012). The amount of research is increasing demonstrating that there is validation of play-based activities enhancing a child's development both physically and cognitively. According to Newman, Brody, and Beauchamp (1996), research conducted in child development has validated the importance of play through established evidence. This research found that academic-only experiences should not replace play that is essential to children's healthy development. Play is also viewed by others as a crucial learning process, providing a safe environment for children to practice their developing physical, cognitive, and social skills (Newman et al., 1996).

Defining play that is most beneficial for students can be extremely difficult and complex because it is viewed in so many different ways. However, people can agree that play needs to be goal and process oriented, engaging, and especially motivating (Riley, 2012). The evolution of play in classrooms over the past century has transformed and research on play has shaped new processes of instruction for teachers to use, different conceptions of knowledge, and a variation of strategies of implementation. New regulations, standards, and teacher evaluation processes have pressured teachers away from incorporating how students learn best, even with knowing the benefits of using developmentally appropriate strategies in early childhood education (Riley, 2012).

State and National Mandates

Despite the numerous benefits derived from play, time for free play has been significantly reduced for some children. Kindergarten children have had free play reduced in their schedules to make room for more academics (Ginsberg, 2007). The No Child Left Behind (NCLB) Act of 2001 (2002) and other regulations reveal our country's recent push for literacy and educational accountability. The importance of early years in learning and recent heightened awareness of research on the brain have pushed policymakers to have an increased interest in educating children earlier and fostering brain growth at earlier ages. As school districts responded to the NCLB Act of 2001, many children are being given less free time and fewer physical outlets at school in an effort to focus on reading and mathematics (Ginsburg, 2007). With the absence of play in early childhood curriculum, students can be deprived of proper child development steps that help foster life skills needed to succeed in society.

Theoretical Framework

The early childhood education profession's viewpoint is primarily built on the foundation of theories from Friedrich Frobel, Lev Vygotsky, Jean Piaget, Maria Montessori, and John Dewey, all of whom demonstrated that the child is central to the learning and teaching process (Riek, 2014). Through their contributions, we know the focus of developing and educating the whole child is the key to early childhood philosophies and policies, rather than narrowing the focus on cognitive development through academic pursuits. Looking through these theories, the teacher is viewed as a facilitator of learning, rather than a giver of knowledge. Montessori (2013) described the purpose as the intent to awaken in the child the scientific spirit, which opens the door for him to broader and bigger possibilities.

The importance of incorporating play in the learning of young children has been long advocated by the professional field of early childhood education. Johnson, Christie, and Wardle (2005) traced the beginning of play to the work of Jean Jacques Rousseau, Johann Pestalozzi, and Friedrich Froebel. These scholars found that incorporating play activities had significant academic, social, and emotional advantages over activities with primarily direct, rigorous instruction. The argument for incorporating play is founded on the theories that young children learn differently than older children and adults (Riley, 2012). Children's cognitive development is still evolving and they are not yet ready to think abstractly through integrated methods of direct instruction (Riley, 2012).

As political and administrative trends, theoretical framework, and human development have impacted kindergarten students and teachers, the early childhood curriculum and teacher practices have evolved. As teachers and schools face new policies

and mandates for educating students, early childhood educators are challenged to adapt their practice to accommodate these new mandates that call for more standards-based curriculum focused on numeracy and literacy (Graue, 2010). In response to NCLB of 2001 (2002), opportunities for play-based experiences in classrooms have been challenged over the past decade. Despite research demonstrating the educational benefits of child-driven play, teachers and schools have been pressured to focus on improving children's success on standardized assessments, which is not always beneficial in the long run for students (Medellin, 2015).

Problem Statement

When early childhood curriculum was originally designed it was structured by strong child-centered approaches, including play (Oers & Duijkers, 2013). Additionally, most adults' kindergarten experience is remembered as a time of transition from home, including play (Smith-Rodgers, 2012.) Over the past decade, however, societal pressure has been growing, due to increasing demands on schools for stronger academic growth and achievement for students at early ages. One aspect of early childhood education that has never been in question is the importance of play in a child's life. There has been an increased political push for our teachers to improve student outcomes through data-driven results from standardized testing. Thus, with more time spent with math and reading, the time allotted for play has greatly diminished and with that its developmental benefits.

Banks (2013) recognized this constant tension of various expectations teachers face, such as the increased efficiency in the context of contracting budgets, demands to rigorously "teach the basics," exhortations to encourage creativity, building citizenship, and helping students to examine their values, just to name a few. Recent literature

confirms that play-based curriculum as a method of teaching and assessing in early childhood classrooms is indeed an endangered practice in the context of elementary schools (Baumer & Radsliff, 2009; Nicolopoulou, et al. 2009). The use of approaches that have an emphasis on academic skills, excluding play-based learning, is an issue being discussed in education (Smith-Rodgers, 2012).

As schools implement this new trend of increasing student outcomes, this shift may have implications on children's learning. Although standardized assessment and progress-monitoring initiatives have been established to identify, as early as possible, those students who have difficulty learning, there has also been research demonstrating negative outcomes as well. A negative outcome may include children's ability to store information being affected because their cognitive capacity is boosted by a clear-cut and significant change in activity (Ginsburg, 2007). Additionally, there have been reports by teachers of the so-titled "pressure-cooker kindergarten" classroom environment stemming from insufficient time for what is characterized as developmentally appropriate learning including play-based activities (Hartigan, 2009). There has been little research noting the differences play-based curriculum has on student achievement and growth. Knowing the importance and developmental appropriateness for play to be incorporated into early childhood curriculum, the current study was conducted to identify the differences between Missouri kindergarten classrooms who used play-based learning and those who did not on students' academics and behavior through examining their behavioral and academic referrals.

Purpose of the Study

The importance of play in early childhood development has been known as a key factor in children's learning for many years. Even after knowing the importance of play in early childhood development, the shift in instructional and learning practices in kindergarten classrooms is continuously changing as pressures are placed on schools and teachers. State mandates have made it a challenge for some teachers to provide students with play-based curriculum, even after knowing what children need. Early childhood teachers are faced with decisions about implementing developmentally appropriate practices that are influenced by new political and educational mandates versus a learner-centered curriculum (Riley, 2012).

Although there has been a high interest in researching play and the developmental appropriateness of using it, there has been limited evidence-based research. The purpose of this study was to determine the differences in kindergarten classrooms who had used play-based learning and those who did not. Additionally, this study attempted to determine if such difference impacted kindergarten students' academics and behavior by examining their behavioral and academic referrals. By conducting this research, key impacts about play-based learning were identified and prioritized to help others when developing curriculum and instruction in kindergarten classrooms.

Research Questions

The purpose of this study was to determine the differences between classrooms who used play-based learning and those who did not on kindergarten students' academic achievement and behavior. The following questions guided this study:

1. What is the difference in the academic achievement of kindergarteners in classrooms that use play-based learning and those who do not as measured by examining their academic referrals?
2. What is the difference in the behavior of kindergarteners in classrooms that use play-based learning and those who do not as measured by examining their behavioral referrals?

Hypotheses

In an effort to answer the aforementioned research questions, the following null hypotheses were investigated:

- H_{01} - Play-based curriculum will have no statistically significant difference on kindergarten students' academic achievement as measured by their academic referrals.
- H_{02} - Play-based curriculum will have no statistically significant difference on kindergarten students' behavior as measured by their behavioral referrals.

Assumptions/ Limitations/ Delimitations

The assumptions, limitations, and delimitations of this study that have been identified are outlined in this section.

1. It is assumed that educators participating in this survey will respond in a truthful manner.
2. The amount of input the teacher has and the curriculum available to teachers may have an impact on the attitudes reflected in the surveys.
3. The researcher did not control the referral process, but rather determined if they used one or not through the survey.

The following delimitation was present in this study:

1. This study focuses on full day kindergarten classrooms in Missouri public schools.

Design Controls

This quantitative study utilized a demographic questionnaire to identify all public schools in Missouri that had a full day kindergarten classroom. Research suggests that play-based learning designs provide opportunities for students to problem solve, manipulate objects, act out roles, and interact with others as they learn new concepts and ideas as compared to traditional classroom designs (Karia, 2014). The anonymous survey identified the students' learning environment as it determined those full day kindergarten classrooms that implemented play-based learning and those that used a traditionally designed curriculum. Throughout different schools, each classroom setup is unique and expectations can vary so teachers can effectively teach and manage students (Menzies & Lane, 2011). Jackson (1990) stated the classroom environment can have an overwhelming effect on students' educational experience. He explained that students have a wide range of emotions based on surrounding conditions within the classroom and school. Students who have a hard time adjusting to the surroundings at school are less likely to be successful because few alternatives exist, especially in early years because they are the foundational years (Menzies & Lane, 2011). As students are learning, building skills, and developing capacities to regulate their thoughts, emotions, and behaviors during their early years in education, problem behaviors occur more often (Egger & Angold, 2006). In addition, academic concerns can arise if students' environment is not conducive to their learning styles. After classrooms determined

whether they used play-based learning or not, as defined by the definition, the survey then determined if the classrooms used academic and/or behavior referrals.

For the purpose of the study, a behavior referral is a form teachers fill out and submit to the office including specific incident, events leading up to the incident, and steps taken by the teacher. In general, the misbehavior is either so severe that the teacher feels he/she cannot properly discipline the student in the classroom or the teacher has tried to discipline the student on his/her own without success (Matalone, n.d.). This study included behavior referrals that incorporated both Tier II and Tier III referrals including extra interventions, discipline, or steps taken beyond the regular classroom strategies.

For the purpose of this study, an academic referral was completed when a teacher believed that a student needed academic intervention beyond regular classroom interventions, which would be considered Tier I supports, to help them overcome obstacles that may have been preventing them from being successful (Meador, 2016). Academic referrals in this study included Tier II referrals involving interventions beyond regular classroom strategies or referrals of students who were predicted to be at risk through a screening process (Mellard, Stern, & Woods, 2011). In addition Tier III referrals, which included referrals for students that had received additional support interventions but who were still experiencing problems and were at risk of developing more severe problems prior to Special Education referrals, were included (Ervin, n.d.). Once identified, participants were asked to specify the number of students that were referred for support academically, behaviorally, or for both academics and behavior. Participants were also asked to elaborate by answering questions that provided the researcher with more in-depth information about students with multiple academic,

behavior, or both types of referrals and by identifying the number of referrals these students had. The survey design and data did not allow any opportunity for the researcher to establish a relationship with the participants involved, minimizing researcher bias. In addition, e-mails were not associated with any data analysis to ensure confidentiality throughout the study.

Definition of Key Terms

Academic Referrals. A referral is a process of steps a teacher takes to get extra assistance for a student with whom they work directly on a regular basis. A referral is completed when a teacher believes that a student needs some academic intervention beyond regular classroom interventions (Tier I supports) to help them overcome obstacles that may be preventing them from being successful (Meador, 2016). For the purpose of this study, academic referrals included Tier II referrals involving interventions beyond regular classroom strategies or referrals of students who were predicted to be at risk through a screening process (Mellard et al., 2011) and Tier III referrals, which included referrals for students that had received additional support interventions but who were still experiencing problems and were at risk of developing more severe problems prior to Special Education referrals (Ervin, n.d.). In addition, for the purpose of this study, academic referrals also included Special Education referrals, which required evidence without any doubt that a student was not responding to general education interventions including tiered interventions. For many districts, this usually requires that a minimum of three separate intervention plans be attempted—with each intervention plan being tried for at least six to eight instructional weeks—before the school can judge whether a student has or has not responded to intervention (Wright, 2010.)

Behavior Referrals. A behavior referral is a form teachers fill out and submit to the office with information about the specific incident and events leading up to the incident as well as steps taken by the teacher. An administrator is assigned the referral and decides how to officially discipline the student. In general, the misbehavior is either so severe that the teacher feels he/she cannot properly discipline the student in the classroom or the teacher has tried to discipline the student on his/her own without success (Matalone, n.d.).

Developmentally Appropriate Practice (DAP). Developmentally appropriate practice, often shortened to DAP, is an approach to teaching developed through research on how young children develop and learn. It is based on what is known about effective early education. Its framework is designed to promote young children's optimal learning and development by incorporating their interests. It is most effective at the child's level of understanding (NAEYC, 2015).

Intervention Support Systems. Intervention system of supports is a term used to describe an evidence-based model of schooling that uses data-based problem solving to integrate academic and behavioral instruction and intervention (University of South Florida's College of Behavioral & Community Sciences, n.d.).

Play-Based Learning. Play-based learning is a vehicle for learning that lies at the core of innovation and creativity. It is during play that children are most receptive and innovative. Play is linked to problem solving, language acquisition, literacy and numeracy development, and the development of social, physical, and emotional skills. Children manipulate objects, act out roles, experiment with materials, and explore with song, dance, games, toys, and the arts (Karia, 2014).

Tier I Level of Support System. At this level, every student receives high-quality, scientifically based instruction. Periodically, all students are screened to determine an academic and behavioral baseline. These screenings identify struggling students who are in need of additional support. Students identified as being "at risk" through universal screenings and/or results on state- or district-wide tests receive supplemental instruction during the school day in the regular classroom. The time length for this tier varies, but it generally does not exceed 8 weeks. A valid screening system such as curriculum-based assessments monitor student progress closely. At the end of the typical 8-week period, significantly progressing students return to the general classroom program. Students not showing adequate progress are moved to Tier II (Response to Intervention Action Network, n.d.).

Tier II Level of Support System. Students not making adequate progress in the regular classroom in Tier I are given increasingly intensive instruction aligned with their needs on the basis of levels of performance and rates of progress. Size, frequency, and duration of instructional interventions vary depending on their level of need and instruction. Services and interventions are provided in small-group settings along with daily general classroom instruction. Typically, in the early grades (kindergarten through third grade), interventions are developed around the areas of reading and math. The time length for this tier is typically longer than Tier I, but it should generally not exceed a grading period. Students who continually do not show adequate progress at this level of intervention are then considered for more intensive interventions as part of Tier III (Response to Intervention Action Network, n.d.).

Tier III Level of Support System. At this tier, students receive individualized, intensive interventions that target the students' needs and deficits. Students who struggle to meet the desired level of progress in response to targeted interventions are then referred for a comprehensive evaluation and considered for eligibility of special education services under the Individuals with Disabilities Education Improvement Act of 2004 (IDEA 2004). The data collected during Tiers I, II, and III are included and used to make the eligibility decision (Response to Intervention Action Network, 2015).

Zone of Proximal Development. The zone of proximal development, often abbreviated as ZPD, is the difference between what a learner can do without help and what he or she can do with help. It is a concept introduced, yet not fully developed, by Soviet psychologist Lev Vygotsky (1896–1934) during the last 10 years of his life (Culatta, 2011).

Summary

This chapter contained an overview and history of early childhood education and current national and state mandates that are affecting early childhood classrooms. It also discussed research-based child development and appropriate practices recommended for adequate child development. This chapter contained an overview of recognized theories of child development and play along with the impact on student achievement. This study intended to determine the differences play-based learning curriculum has on kindergarten students' academic achievement and behavior by examining their academic and behavioral referrals.

Chapter Two of this paper will provide a literature review and theoretical framework of existing research and explore the body of literature that speaks to the topic

of play based learning. The literature review is organized thematically and focuses on scholars and theorists on child development, educational philosophies, national and state mandates, referrals, and play.

Chapter Three will describe the method for identifying and selecting school districts utilizing or not utilizing play-based learning, along with tiered support systems. This chapter will also outline the collection of academic and behavior referrals data for the selected districts. Results will be analyzed for hypothesis conclusions in Chapter Four. Conclusions of findings and recommendations for further research will be presented in Chapter Five.

CHAPTER TWO

REVIEW OF LITERATURE

Introduction

Teaching is a profession that has the opportunity to change the human brain every day (Sousa, 2011). Teachers set the environment that children experience on a daily basis. Educators have the responsibility to promote rapid growth in the minds of young children that inspires them to explore, to discover, and to play as they make connections with their changing world (Rushton, Juola-Rushton, & Larkin, 2010). The issue of play as a means to educate and provide experiences to a child has been a topic of great debate in early childhood education, especially with recent pushes for student accountability (Riley, 2012). Riley (2012) suggested although many recognize that play is the natural way children learn about life experiences, others argue that play is not a necessary means to guide children to academic achievement. This literature review is thematically organized providing research and theoretical frameworks surrounding foundational perspectives of play, appropriate early childhood developmental practices, and national and state mandates and requirements. A theoretical framework of play and the role that play holds in the development and learning of students, and their achievement in early childhood classrooms are examined. In addition, the literature review also addresses research and evidence on multitiered support systems, including both academic and behavioral aspects. The purpose of this literature review is to establish a definition, meaning, and importance of play-based learning; determine the reasoning behind the disappearance of play pedagogy in early childhood classrooms; and identify systems that are currently being used to help kindergarten students succeed in the classroom.

The kindergarten classroom today is not the same as yesterday's "Frobelian garden." Historically in the United States, the foundation of kindergarten has been shaped by the dedication to core values based on child development that promotes learning and the development of the "whole-child" (Goldstein, 2007). Child-centered instructional practice is synonymous with child-centered practices and was the primary method for educating students during the past century. Over the past century, kindergarten in the United States has gone through different phases in terms of its purpose and mission. Federal and state initiatives have influenced how schools promote the standard of learning and monitor children's progress in meeting those standards (Medellin, 2015). With increasing pressure being placed on schools, the instruction of kindergarten students may not be developmentally appropriate practice.

Cognitive Learning Theories and Perspectives

Froebel as the "Father of Kindergarten." Freidrich Froebel, known as the "Father of Kindergarten," was a German educationalist who believed that humans are fundamentally productive and creative. Froebel (1887, 1889) believed it was important to boost creativity, free self-activity, motor expression, and social participation in the educational setting through incorporating the use of materials. He also believed that it is through engaging in the world that understanding and learning unfolds, which is the significance of play as both a creative activity and a means through which children become aware of their place in the world (Karia, 2014). Creativity would develop if children were given proper materials and instructed how to use them correctly. A rich environment that allowed for a variety of learning materials and equipment would aid in the development of intellect in children (Karia, 2014).

Froebel (1887) suggested free play in childhood using special gifts and occupations, which demonstrated certain relationships and led children to compare, test, and explore. According to Froebel, each gift given to a child was designed to provide material for the child's self-directed activity (p. 285). Two examples of gifts included four geometric wooden blocks and six crocheted woolen balls consisting of three primary and three secondary colors. In total, there were over 20 types of gifts. "The 'gifts' led to discovery…the 'gift' gives insight" (Frobel, 1887, p. 287). Occupations, according to Froebel, were more activity based. Occupations consisted of weaving, drawing, and clay modeling, which can be categorized as traditional components of a kindergarten program. Initially, Froebel (1889) thought both gifts and occupations were taught through educational games in the family. Later in his life, his work was linked to provisions in educational centers for the care and development of children outside of the home (Karia, 2014).

Froebel's (1887) philosophy of educational play rested on four basic components: (a) free self-activity, (b) creativity, (c) social participation, and (d) motor expression. A "garden" for children is how Frobel (1887, 1889) described kindergarten. He explained it as a location where children can observe, interact, and where they themselves can grow and develop in freedom (Karia, 2014). In the 1880s, when the Froebelian methods were first introduced, many believed the younger children (under 5 years old) should be at home with their mothers. According to Karia (2014), through the 1900s, European influences on education continued and eventually more awareness of worldwide philosophies in early year's education brought a more global realm of approaches. The

kindergarten classroom in public schools began to become more widely accepted after these movements.

Dewey's principles of education. Scholars such as John Dewey advocated that one learns by doing and that children's play is a primary vehicle for mental growth (Karia, 2014). Therefore, child-initiated, child-directed, and teacher-supported play is an essential component of developmentally appropriate practices in the early years (Copple & Bredekamp, 2009). Dewey (1929,) asserted that children each have individual interests and learn by experience. Dewey, who is sometimes considered a philosopher for progressive education, described educational excellence as helping each child become self-directed and getting children involved in learning. Dewey (1916, 1929) influenced kindergarten programs and developed classrooms where there was a variety of areas. In these programs, formal reading and math were not taught as isolated skills, but daily routine was stressed instead (Karia, 2014). Dewey (1929) and Bugg & Dewey 1934) thought that children should use scientific inquiry in all subject areas in order to develop into good communicators and thinkers. The atmosphere he created was more relaxed in order to make children comfortable in the school environment.

Whether traditional or progressive, Dewey's (1929/1997) principles of carefully developed philosophy of experience examined a true learning situation as orderly and dynamic, and as using a progressive organization of subject matter. It is important to look at the present experience. Dewey (1938/1997), in his book, *Experience and Education*, stated:

> Give the pupils something to do, not something to learn; and the doing is of such a nature as to demand thinking; learning naturally results…experience arouses

> curiosity, strengthens initiative, and sets up desires and purposes that are sufficiently intense to carry a person over dead places in the future, continuity works in a very different way. Every experience is a moving force. (p. 38)

Dewey (1929,) believed that education is a process of living and advocated that curriculum should be connecting the child's past experiences and interests to develop the present experience to greater satisfaction. It is known that the environment and the social actions, along with dialogue between teacher and learners, were important (Karia, 2014). The child is responsible for bringing prior knowledge to the world of learning and the teacher encourages reflection as a way of fostering understanding. Dewey's work influenced Piaget's work (1950, 1969) and has reinforced the importance of the social aspect of education in order to enrich the overall learning experience. Importantly, these works raised awareness that children's learning does not occur in narrowly defined subject areas. The process of interacting with materials and people results in learning.

Piaget's constructivist theory and thoughts on play. Jean Piaget, Swiss psychologist, was interested in the "cognitive developmental theory." Piaget (1950) believed that children think differently from adults, and he paved the way for educators to explore how children begin to learn new knowledge. He found that cognitive behaviors developed through stages of mental development called "cognitive schemes." The focus was more on individual contact with objects than with people (Karia, 2014). Piaget (1950) also viewed language and thought as significant cognitive processes. He theorized that mental development took place through three periods from birth to preadolescence (Piaget, 1950).

Piaget's (1950, 1962) theory of cognitive development is a cornerstone for understanding how children think and learn. During the preoperational stage (2 to 6 years of age), children develop the ability to think in "symbolic form" and use language to name symbolic representation or to make meaning of objects. During this stage, children are developing the use of language and are able to think logically and reason in one direction (Karia, 2014). According to Karia (2014), they also have a sense of adaptation or ongoing interaction with the environment and new experiences add to the child's organization schema. Knowing this, it is important to allow children to explore objects and learn by interacting with their environment as they make sense of the world by feeling, seeing, and categorizing objects.

The theory of cognitive development (Piaget, 1950, 1952) has four stages, each one containing the processes to transform the environment and to change thought process and accept something in the environment. Piaget's (1950, 1972) four cognitive development stages are as follows: Sensorimotor stage (birth to age 2), Pre-operational stage (ages 2-7), Concrete operational stage (ages 7-11), and Formal operational stage (age 11+). It is the Pre-operational stage that affects the kindergarten years and this is when children start to use mental imagery and language (Karia, 2014). Children are very egocentric and view things around them with only their point of view. Only in the Concrete operational stage are children capable of taking another person's point of view and reasoning with concrete knowledge as the egocentric stage diminishes (Karia, 2014). According to Karia (2014), during the Formal operational stage, children can think logically, abstractly, and theoretically. Understanding these child developmental stages is the foundation of appropriate classroom practice.

Piaget (1969, 1972) also studied the mental processes of perception, memory, judgment, and reasoning and the stages a child moves through in order to acquire this ability. Piaget's work in understanding children's cognitive development and the different stages of development allowed for major windows of opportunities for early childhood programs. Piaget's ideas are used today in the development of kindergarten programs and his theories of thought and cognitive development have significantly influenced the philosophers who followed in his footsteps.

Vygotsky's social constructivist learning theory. Lev Vygotsky (1934, 1978) took the omission of the social world of the child from Piaget and paved the social constructivist theory of child development. Learning and schooling have a highly complex and dynamic relation with social development. Vygotsky's main concept, referred to as the zone of proximal development (ZPD), showed a new perspective in working with the child as he or she learns and knowing that each child has areas that can potentially be developed further (Karia, 2014). The notion of ZPD enables cooperation and positive interdependence rather than using rote learning and paper-and-pencil approaches. Vygotsky's (1978) emphasis on historical, social, and cultural aspects of development and learning supported a meaningful involvement of the child, teacher, school, and community. The relationship between play and cognitive development is described differently in Piaget's cognitive development theory and Vygotsky's social constructivist theory, which overlook early childhood education.

Vygotsky and Piaget both proposed ideas and theories that shape early childhood education. The Vygotskian "developmental path to play" defined the age-related description of play and fostered quality play experiences using props, imagination,

defined roles, effective use of language, and dramatization (Karia, 2014). Vygotsky (1986) also believed that conflict supports and encourages cognitive development. The child can build upon existing knowledge through social interactions that are new, different, and conflicting (Smith-Rodgers, 2012). A child goes through a process of constructing authentic versions of a new concept or skill, influenced by previously established background knowledge. As the student goes through multiple attempts at learning the new, authentic skill or concept, combined with feedback from "teachers," the student eventually constructs knowledge of the concept similar to the teachers (Smith-Rodgers, 2012).

According to Smith-Rodgers (2012), Vygotsky's constructed learning and ZPD are necessary in understanding how children construct knowledge and play-based learning is an avenue that will lead to the development of understanding. Vygotsky argued that play was critical in the early childhood years. When the learning occurs in the child's ZPD, it encourages and supports a child's level of understanding (Smith-Rodgers, 2012). A student's pretending can also influence a child's ability to reason deductively (Cole, 1993). Students' ability to self-regulate emotions, physical behavior, and social interactions, including the ability to control cognitive processes, is thought to be necessary in order to succeed in the school setting (Bordova & Leong, 2003).

How young people learn. In order to understand how people develop important learning competencies, it is important to understand the process of learning and how it is transferred in people (Bransford, Brown, & Cocking, 2000). It is the hope of both educators and adults that children will transfer learning from one activity to another, from one year of school to the next, and between home and school. It is important to

understand how learning is transferred with different people and in different environments. There are key characteristics of learning and transfer that have important implications for education (Bransford et al., 2000). The first is that in order for transfer to occur, initial learning is necessary and a considerable amount in known about the kinds of learning experiences that support this process. The second key is overly contextualized knowledge reduces transfer but abstract representations support transfer. The third key is transfer is best viewed as an active, dynamic process rather than a passive learning experience. Lastly, all new learning involves transfer based on previous learning and that relies heavily on the design of instruction that promotes learning.

One of the main goals of schools is to prepare students to adapt to new problems and settings in their everyday lives. The way that students transfer provides critical learning that allows teachers to evaluate and improve their instruction (Bransford et al., 2000). Research suggests that several approaches to instruction look similar when the only measure of learning is memory of specific information. Instructional differences are more obvious when examined from the perspective of how well the learning transfers to new problems in new environments. A key determinant of learning is students are motivated to spend more time needed to learn complex ideas and to solve problems in which they are interested. Bransford et al. (2000) suggested that time on task is necessary for learning, but does not mean learning is effective. Frequent feedback is critical in order for learners to gain insight and understanding. In addition, effective teaching supports positive transfer by actively identifying the relevant knowledge and strengths that students bring to a learning situation and building upon them.

The way children learn differs from adult learners in numerous ways, but there are common themes among learners of all ages. Previously it was commonly known that infants and young children lack the ability to understand and form complex ideas (Bransford et al., 2000). It is now known that very young children are in control of their conceptual development. The shift in thinking started with Piaget in 1920, after he observed infants and questioned children, concluding that cognitive development proceeds through different stages (Bransford et al., 2000). Piaget continued his thinking and research as he combined infants' internal and external worlds, determining the development of an accurate representation of physical reality depends on the gradual coordination of schemes looking, listening, and touching (Gibson, 1969). Piaget paved the way for others to study how newborns begin to integrate sight and sound as they explore their perceptual worlds through patterns that infants use to obtain information about objects and events (Gibson, 1969). Both Piaget and the perceptional theorists shared an emphasis on considering children as active learners who assemble and organize material. Vygotsky (1978) emphasized the important role of the social environment, including tools and objects as well as people. Specifically, Vygotsky emphasized the zone of proximal development, which refers to the bandwidth of competence that learners can navigate with aid from a supportive context, including the assistance of others (Brown & Reeve, 1987). As a result of these theoretical and methodological developments, much information has been gathered in studying young children's learning capacities. Specifically, there are four main areas of research: (a) early predisposition to learn about some things but not others, (b) Strategies and metacognition, (c) Theories of the mind, and (d) Children and community.

Young children are actively engaged in making sense of their worlds. In some domain, children have strong predispositions to learn rapidly and readily, which supports and may even make possible early learning and paves the way for competence in schooling (Bransford et al., 2000). It has been stated that children's early understanding of the perceptual and physical world may ignite the learning process, even making learning possible, but it can also hinder later learning. Children learn willingly in some domains, but one must note that with sheer will and effort, they can learn practically anything. Children are both problem solvers and problem generators as they are constantly refining and improving their problem solving strategies not only with failure, but also by building upon prior success (Bransford et al., 2000). Children are persistent learners because success and understanding are motivating, which makes it critical for adults to help make connections between new situations and familiar ones for them. This curiosity and persistence continues as adults direct attention, structure experiences, support learning attempts, and regulate the complexity and difficulty of the learning (Bransford et al., 2000). Structure is critical for learning and for moving toward understanding information. Children display abilities that are shaped by environmental experiences and the individuals who care for them. Learning is promoted and regulated by both children's biology and ecology, and learning procedures' development (Bransford et al., 2000).

Early Childhood Development Practices

Early childhood development and developmentally appropriate instructional practices. According to Mustard (2006), although the rate of development and the variety of pathways vary, the brain's architecture is built from the bottom up, as the sequence of

development in a child's brain is similar from one child to the next. Educators' understanding of how children learn best will assist in optimizing the early years of learning. Shonkoff (2010) suggested that genes set the parameters for the basic structures of the developing brain, but a child's interactions and experiences with others establish neural circuits and shape the brain. Early childhood policies and practices over the past several decades have been guided by several theoretical models of human development that have been refined over time.

An influential position responsible for the training of educators and shaping curricula has been guided by developmental theory and influential educational organizations, such as National Association of the Education of Young Children, aimed at preserving developmentally appropriate instruction for young children (Copple & Bredekamp, 2009). Child-centered and teacher-directed perspectives emerged as being two dominant approaches to educating young children that have been important in shaping classroom content and delivery of information (Tzuo, 2007). Rooted within each is a theoretical position for how children learn and develop. The child-centered approach focuses on educating the whole child (birth through third grade) through play-based activities (Copple & Bredekamp, 2009). The teacher's role in providing structured activities that include rote practice and memorization of material and content as a result of academic pushdown is a teacher-directed approach (Medellin, 2015). An important task for teachers and schools is finding the right balance between the two approaches.

Developmentally appropriate practice (DAP) is a philosophy that includes developmental theory and is then applied as an approach to teaching young children (Medellin, 2015). Developmentally appropriate practice has been influential in shaping

teacher education programs and accreditation procedures, and in helping teachers make appropriate decisions to guide each child's development within their classroom (NAEYC, 2009). The NAEYC is the flagship membership association for those working with and on behalf of children from birth to age 8. Several position statements outlining their perspective on issues pertaining to early childhood development have been written by the NAEYC (Medellin, 2015). According to Copple & Breedkamp (2009), the NAEYC released its first position statement on DAP in 1987, providing principles for best practice that could be used by early childhood programs seeking accreditation. Inclusions for more diverse populations and recommendations for educators in light of new research and educational policies were made in the NAEYC's most recent update on DAP (Medellin, 2015).

Educators that acknowledge what is known about child development and learning through research and practice are adapting to each child's learning needs, and incorporating what is known about the social and cultural context in which children are living (NAEYC, 2015). A learning environment for children to construct knowledge through their actions and experiences within the classroom environment is DAP. At the core of DAP is the idea that all children should be offered an early childhood (birth to third grade) experience that is rooted in best practices that will allow them to develop to their full potential with interactions and guidance from their peers and teachers (Medellin, 2015). According to DAP, no one practice is favored, but both teacher-directed and child-centered should be included to allow for exploring social interactions and optimal learning to take place. Because young children do not categorize learning according to various disciplines as adults do, instruction and learning should be created

according to four spheres of development: Socio-moral, Cognitive, Representational, and Physical (Project Construct, 2014). Socio-moral development refers to children's growing capacity to relate emotionally, ethically, and intellectually to the external world. This is critical to development because according to constructivist theory, all aspects of development in all domains occur within socio-moral environment. When children construct through interactions with others, an understanding of self and others, of social roles, and of the values held by their society, and develop dispositions, they establish a foundation for lifelong learning and autonomy (Project Construct, 2014). Children's cognitive development occurs within a social and physical context. Children coordinate their thinking process and theoretical frameworks within the demand of their environment. Representational development refers to children's growing capacity to form and communicate images or ideas of something seen, known, or imagined. Physical development refers to children's abilities to use their bodies with increasing purpose, skill, and control.

Piaget's and Vygotsky's thoughts on play. Vygotsky and Piaget both proposed ideas and theories that shape early childhood education. The Vygotskian "developmental path to play" defined the age-related description of play and fostered quality play experiences using props, imagination, defined roles, effective use of language, and dramatization (Karia, 2014). Vygotsky (1986) also believed that conflict supports and encourages cognitive development. The child can build upon existing knowledge through social interactions that are new, different, and conflicting (Smith-Rodgers, 2012). A child goes through a process of constructing authentic versions of a new concept or skill, influenced by previously established background knowledge. As the student goes through

multiple attempts at learning the new authentic skill or concept, combined with feedback from teachers, the student eventually constructs knowledge of the concept similar to the teachers (Smith-Rodgers, 2012).

Overall, Piaget (1950) determined many developmental milestones and developmentally appropriate practices in early years. Piaget (1962) reinforced that adults can facilitate a child's learning schema by verbal encouragement, physical proximity, and focused attention as well as through opportunities for social interaction with trial and error. Piaget (1962, 1969) also thought it was important to provide activities and an environment to support growth according to the developmental needs of the child. Piaget (1969) believed that the social support and opportunities for interactions and communication enriched the overall learning experience.

According to Smith-Rodgers (2012), Vygotsky's constructed learning and ZPD are necessary in understanding how children construct knowledge and play-based learning is an avenue that will lead to the development of understanding. Vygotsky argued that play was critical in the early childhood years. When the learning occurs in the child's ZPD, it encourages and supports a child's level of understanding (Smith-Rodgers, 2012). A student's pretending can also influence a child's ability to reason deductively (Cole, 1993). Students' ability to self-regulate emotions, physical behavior, and social interactions, including the ability to control cognitive processes, is thought to be necessary in order to succeed in the school setting (Bordova & Leong, 2003).

Learning environment design. Learning theories do not provide a simple example for designing effective learning environments. However, new developments in how people learn have created many conversations about the general characteristics of

learning environments (Bransford et al., 2000). Schools appear to function as good as ever but the challenges and expectations have changed. New goals suggest the need to rethink how classrooms are designed including a focus on the degree to which learning environments are learner centered. Learners use their current knowledge to construct new knowledge, which means that what they learn and believe in that moment affects how they interpret new information (Bransford et al., 2000). Learner-centered environments help students bridge the gap between their previous knowledge and their current academic tasks. Classroom environments must also be knowledge centered, presenting multiple thoughts and concepts that are built upon students' experiences and previous knowledge so they are able to build connections between prior knowledge and new information. It is also noted that feedback is fundamental to learning as well as students having a good understanding of the concept, not memorizing the material (Bransford et al., 2000). Promoting a sense of community is also very important to build connections among students' different learning environments. Bransford et al. (2000) suggested that all four perspectives of learning environments need to be well aligned in order for optimal learning to take place.

Focus of Play in Classrooms

History of play development in classrooms. Throughout the past, research on play has seen two trends come forth. First, research increasingly demonstrates that play promotes a variety of social, cognitive, motor, and linguistic improvements (Eberle, 2011). Social play allows children to become more creative and develop confidence when experimenting with new activities (Bjorklund & Gardiner, 2010). Throughout the years in the educational setting, teachers have created an environment that guided play

using learning activities to promote achievement while still allowing children freedom to engage in play based on intrinsic motivation (Bordova, Germeroth & Leong, 2013). No matter the type of play that has been incorporated (free or guided), incorporating play in the classroom fosters improvements academically, emotionally, and socially. Secondly, even though there are many benefits of play recognized by academics, recent years have seen a steady decrease in the amount of time devoted to play in kindergarten classrooms.

The idea that the opportunities for children to learn through play with the development of multiple pathways in the brain was revealed through brain research studies (Mustard, 2006; Shonkoff & Phillips, 2000). Scientific evidence points to the importance of quality early years education programs, stating we need to better understand what is actually happening in the classrooms (Karia, 2014). The American Association of Pediatrics released a report in 2007 about the importance of play in the early years (Ginsburg, 2007). According to the report, play serves to strengthen the synaptic connections in the brain, especially the motor and sensory areas. It stated that there are also areas of rapid growth in the frontal cortex (cognitive thinking, problem-solving, and logic skills), and that it is through play that children can demonstrate their abilities (Bergen, 2007; Bordova & Leong, 2003). Thus, this report showed that a wide variety of play experiences is necessary in order to develop a complex and integrated brain. Research studies (Bergen, 2007; Diamond, Barnett, Thomas, & Munro, 2007; Kostelnik & Grady, 2009) also affirmed that play is important in the development of self-regulation, cognition, language, social, emotional, and creativity skills.

Sutton-Smith's play theory. Brian Sutton-Smith, prominent play theorist, was born in New Zealand in 1924 and developed his academic career in the United States

with focus on children's games, drama, and play. Sutton-Smith (1966 & 1997) and Pellegrini, (1976) indicated that play is as much a quest for excitement, uncertainty, and disorder as it is a search for order, control, and cognitive harmony. Sutton-Smith (1997) viewed play as more interest based and pleasure seeking. Furthermore, Sutton-Smith (1997) defined play as a "facsimilization of the struggle for survival which increases the organism's variability in the face of rigidifications" (p. 223). Sutton-Smith (1997) focused his play theories on seven distinct rhetorics —Fate, Power, Identity, Frivolity, Progress, Imaginary, and Self— that were culturally derived. Sutton-Smith's (1997) studies and theories fostered putting oneself in situations so both success and failure, danger and security would be experienced.

Play-based learning. Play is a developmental environment that has been shown to promote optimal development for young children (Sutton-Smith, 1997.) Vygotsky believed that play was critical during the early childhood years. The benefits of play allow children to use their creativity to discover and explore their environment to develop foundational skills. Through play, children can learn essential skills like taking turns, exercising self-control, and developing perspective-talking, which can assist with the mastery of academic content (Ginsberg, 2007). A historically important perspective has been associated with the role of open-ended play as a basis for pedagogy. This perspective suggests open-ended play is important for young children because it allows them to explore and discover, which are necessary for student growth and learning (White et al., 2007).

Although play can be viewed by some as an addition to classroom instruction, as a time-filler and "free time" (Miller & Almon, 2009), intentional guided play can be used

as a pedagogical tool that has been linked to positive academic and social outcomes for students (Bordova & Leong, 2013; Ginsburg, 2007). In fact, many early childhood educators advocate that it is difficult to separate development, learning, and play. Play-based learning is described in the early years learning framework (EYLF) as "a context for learning through which children organize and make sense of their social worlds, as they actively engage with people, objects and representations" (Department of Education and Training - Document library, Australian Government, 2016, p.46). As children play with one another, they develop social relationships, challenge thinking with one another, and build new understanding by investigating ideas (Chigeza & Sorin, 2016). It is also suggested by the EYLF that play-based learning is naturally a form of inquiry that requires an educator to have a deep understanding of child development and interests (DEEWR, 2009). Play advocates suggest that this style of learning blends with a child-centered approach of how children learn and grow (Medellin, 2015). The teacher is a vital part of effective play-based curriculum, as the teacher must understand best practices through a developmental view of how young children learn best.

Research on the benefits of play-based learning on classroom instruction is mixed and difficult to define, as play does not have a set approach. There is growing interest demonstrating the relationship between play-based learning and child outcomes (Playful Learning Summit Working Group, 2009). In addition, current studies have established links between the importance of play-based opportunities for children and the development of self-regulation skills as important indicators of school readiness (Bordova & Leong, 2003). A true play-based approach is characterized by learning opportunities for children where they have the freedom to explore their environment and

have access to classroom learning materials through guidance of teachers (Medellin, 2015). An early educator who designed instruction based on this approach might structure their classroom in a way that allows for exploring and learning through ongoing conversations. Additionally, the educator allows for ample opportunities to use the children's interests and deepen curiosity through language, play, and the use of more open-ended materials (Copple & Bredekamp, 2009).

Types of play pedagogy used in the classroom. As foundation theorists Montessori, Dewey, and Piaget highlighted, children learn best when engaging with the learning materials, allowing them to make connections to prior experiences and knowledge (Riek, 2014). According to Riek (2014), this promotes physical growth of the individual. Play pedagogy, teaching, and learning through hands-on inquiry, which is self-directed and guided by teachers, is endangered and approaching extinction in early childhood classrooms. Educators who understand play pedagogy and have their pedagogical foundations firmly planted in play provide experiences that hold great potential for learning that extends children's understanding and dispositions (Riek, 2014). For early childhood educators, seeking to achieve a balance of meeting current mandated curriculum requirements and embracing play pedagogy can be challenging.

In early elementary classrooms that are embracing play pedagogy, teachers become colearner or more appropriately learning leaders. The ability to clearly articulate the vision for others to not only see where they are heading, but also feel emotionally connected to the end goal is a trait of an effective leader (Riek, 2014). Riek (2014) suggested that teachers implementing play pedagogy are aware of students' personal interests and work collaboratively with them in developing personal projects that allow

them to pose questions, develop investigations, and address mandated curriculum standards. In order to do this, teachers must develop relationships with students and allow them time to explore and learn.

Appropriate emotional skills, social interaction, and strategies. Schools have taken on the task of not only teaching students basic academic skills, but also meeting their mental health needs and maintaining a safe environment that is conducive to learning. Early childhood education research reveals the important impact play has on social, emotional, and intellectual development in children. Understanding that play proceeds through a regular development sequence as a child grows, teachers can also use play as an evaluation tool to indicate a child's social competence (Fewell & Kaminski, 1988). Through this opportunity, play-based measures have been developed to help identify a young child's intellectual and social skills in early childhood education.

The United Nations includes play as a specific right for all children (Honeyford & Boyd, 2015). According to Honeyford and Boyd (2015), the Council of Ministers of Education in Canada (2010) stated that "play-based learning leads to greater social, emotional, and academic success" and encourages a "sustainable pedagogy for the future that does not separate play from learning but brings them together to promote creativity in future generations" (p. 1). Schools promoting a learning climate that is positive is an essential factor in students' academic and behavioral success (Brand, Felner, Shim, Seitsinger, & Dumas, 2003). Specifically, school climate and what students think of their classroom environments have had a tendency to impact school behavior significantly and additionally, academic performance (Haynes, Emmons, & Ben-Avie, 1997). Children need to learn in a positive environment that fosters building skills such as cooperation,

sharing, helping, and problem solving. Building and maintaining positive peer relationships is significant for children to be able to develop social competence (Guralnick, 1993). Through play opportunities, children are submerged in situations that allow them to engage in give-and-take activities that allow them to learn to regulate emotionally and develop social competence (Gagnon & Nagle, 2004). In addition, establishing effective and appropriate peer relationships has implications for children's social and cognitive development. Children enjoy play and are motivated to engage in it and play proceeds through a regular developmental sequence during childhood, which makes it even more crucial for schools to provide the opportunity for this sequential growth to take place (Gagnon & Nagle, 2004).

As students are deprived of the activities and learning opportunities they developmentally need, shortfalls can be observed in children in classrooms. Students who already exhibit or could possibly be at risk for behavior problems usually exhibit characteristics of social skills shortfalls (Gresham, 1998; Kavale, Mathur, Forness, Rutherford, & Quinn, 1997). Students who exhibit these characteristics of social skill deficits tend to experience peer rejection, social withdrawal, and isolation. These problems are dealt with through developing successful positive relationships with peers and adults. If educators want social competency achieved though peer interaction by children, they need to learn the skills to initiate play, progress toward play with peers, and solve peer conflict (Howes & Matheson, 1992). As children participate in play, it helps them assist in building social capabilities as they play roles and act out social situations (Moore & Russ, 2006). It was found that children that engage in more complex pretend

play will increase the likelihood of being more socially competent with peers in the future (Uren & Stagnitti, 2009).

As children develop a strong foundation of social competence through play, it allows them the opportunity to function successfully in school (Kemple, 1991). This is critical since socially competent children are more prepared to continue to excel in an educational setting where social norms are established (Ladd & Coleman, 1993). Ladd (1990) suggested that there are significant connections between children's social competence, popularity, and school adjustment. Socially competent children are well liked by peers and maintain a positive perception about school throughout their early education. These positive interactions in young children help emerge confidence, social competence, and academic gains. As educators strive to meet the needs of each student and to meet the requirements of mandates, each school needs to develop supportive, accountability systems to assist educators in meeting these needs (Ladd & Coleman, 1993). A common way schools measure and support both academic and behavioral needs is through tiered support systems.

National and State Mandates and Requirements

National and state mandates and requirements affecting curriculum. The current era of educational reform, dating to the early 1980s, has been dominated by concerns for excellence (Brint, 2006). According to Brint (2006), accompanying these concerns has been the introduction of accountability measures throughout public school systems. In 1994, the federal government began to build on state efforts to mandate accountability assessments by using a precondition for funds that required such assessments (Brint, 2006). The movement toward greater accountability for student

performance gained momentum in the federal government's NCLB of 2001. Under the NCLB, each state established a definition of adequate yearly progress (AYP) to use annually to determine the achievement of each school district and school. The definition of AYP is founded on the expectations for growth in student achievement that is ongoing and substantial, such that all students are proficient in reading and math no later than 2013-2014 (NCLB, 2002, Sections 1111(b)(2)(C)(iii), 1111(b)(2)(F), and 1111(b)(2)(H).). Adequate yearly progress is based primarily on the state's academic assessments in reading/ language arts and math. Although kindergarten is not specifically addressed in the NCLB, it addresses that the general public considers kindergarten as a standard beginning year of the American K-12 education system and is the initiation into the education accountability system (Kauerz, 2005).

The disappearance of play pedagogy in early childhood classrooms. Literature confirms that play-based curriculum as a method of teaching and assessing in early childhood classrooms is indeed an endangered practice in the context of elementary schools (Baumer & Radsliff, 2009; Nicolopoulou, et al., 2009). Jeynes (2006) traced the shift towards a more academically focused kindergarten to a few key issues. One of the first issues occurred in the 1960s when public school eliminated religious activities in classrooms, leaving a gap in the school day that was filled with academics. Then from the 1960s to 1980s, standardized test scores of students in many American schools began to drop, reforming our educational system (Lynch, 2017). Secondly, Americans learned in the early 1980s that despite efforts to increase test scores, other countries were still scoring higher. One of the higher performing countries, Japan, had an extensive educational testing system, so American schools increased standardized testing (Jeynes,

2006). Lastly, beginning in the early 1990s, policy makers and educators have increasingly seen a gap between the achievement of inner city and suburban children, resulting in new legislation and laws.

Because of this, educators often struggle to create environments that are conducive to the needs of each individual student. This conformity in schools has occurred as a result of reform efforts like NCLB Act of 2001 (2002). Early childhood education students' academic performance expectations have been increased for students at a younger age (NCLB Act of 2001, 2002). Nicolopoulou et al. (2009) suggested that this is because play has been treated as a natural childhood activity that needs no support or guidance from teachers. Play, where children engage with materials and tools in any way desired, meeting the tasks assigned by the teacher has been viewed as something preschool students do. The push for teachers to improve standardized scores has in turn pushed the developmental needs of students aside. Smith-Rodgers (2012) argued that the use of pedagogical approaches emphasizing academic skills and eliminating play-based learning is an issue being discussed frequently among early childhood educators. Early childhood educators often do not know what practices to strive for, nor do they know how to use the best practices to fit learning situations (Riek, 2014). It is important for educators striving to meet the needs of each student to remember that according to research, play encourages appropriate social and academic support.

The "Standards & Accountability Movement" began in the U.S. in the 1990s as states began writing standards outlining what students were expected to know and to be able to do at each grade level, and implementing assessments designed to measure whether students were meeting the standards (Marten, Hill, & Lawrence, 2014). As part

of this education reform movement, the nation's governors and corporate leaders founded Achieve, Inc. in 1996 as a bipartisan organization to raise academic standards and graduation requirements, improve assessments, and strengthen accountability in all 50 states. On December 10, 2015, President Obama signed the Every Student Succeeds Act (ESSA) that contained a number of levers that would create equity in the United States school system (The Education Trusts, n.d.). The levers included consistent state-wide standards, annual assessments aligned with state standards, clear requirements on statewide accountability systems, public reporting, and federal funding. The Common Core Standards were created in response to the falling of the NCLB Act and the ESSA to increase the quality of education consistently among all states created by the National Governor's Association (NGA) and the Council of Chief State School Officers (CCSSO; Marten et al., 2014). The group created standards for pre-K through 12th grade, including English language arts and mathematics (NGA & CCSSO & Achieve, Inc, 2008).

In 2010, Missouri adopted the Common Core Standards but eventually transitioned away from Common Core (Marten et al., 2014). This was seen by its supporters as important because teachers and parents often complained that it was unfair to compare students' performance on standardized tests from state to state because states had different standards and different tests. Missouri transitioned to the Missouri Learning Standards during the 2016-2017 school year after receiving input from teachers, parents, and the community. The Missouri Learning Standards' focus remained on more rigorous math and English language arts standards as well as including both science and social studies as compared to the Common Core initiative.

With the concern for closing the achievement gaps, the emphasis on curriculum foundations for later school success has taken center stage. Recent research suggests that in some major metropolitan areas in the United States, the NCLB and the need to meet future AYP targets are pushing an increased emphasis on academic skills, emphasizing literacy and math (Miller & Almon, 2009). Research has indicated that in some instances, the new emphasis has replaced child-centered, experiential, inquiry-based learning activities to meet these requirements (Miller & Almon, 2009). Main methodology and instructional techniques for teaching with this new emphasis is more skill based and teacher directed.

Teacher and school pressures of state mandates in early childhood settings. The kindergarten classroom today is not the same as classrooms over the past century in the United States. Kindergarten classrooms have gone through different iterations in terms of the purpose and mission as more children are being enrolled in preschool programs (Medellin, 2015). According to the National Center for Education Statistics (NCES, 2013) more than 95% of eligible children are enrolled in kindergarten. With this trend, Gullo and Hughes (2011) suggested the bar has been raised in kindergarten and the purpose of kindergarten has shifted. In 1990, a federal policy shifted kindergarten into the K-12 educational system where curricular goals and expectations are tied to secondary education and unified set of standards despite the developmental needs of young children (Dombkowski, 2001; Goldstein, 2007; Medellin, 2015). This movement led to a trickle-down effect of governance by the upper grades. The trend of standards-based practice creates enormous pressure for teachers to meet expectations that shifts the focus on what

students are taught and how instructional time is planned in early childhood classrooms (Astuto, 2006; Bassok & Rorem, 2013).

Early childhood educators and schools are facing many challenges as the pressure for emphasis on academic skills has become more intense. One challenge that confronts educators and policy-makers when looking at the efficacy of this academically focused approach to kindergarten is there is not research that immediately supports it (Smith-Rodgers, 2012). Smith-Rodgers (2012) added there is also little research that proposes that a kindergarten learning environment that is student centered, focused on play, and in which developing social skills is incompatible with reaching grade-level learning goals. Knowing kindergarten often lays the foundation for future learning, the experiences, terminology, and methodology used to teach early childhood students set the stage for learning and student behavior in future educational experiences. It is important for educators to determine if this political initiative connected to federal and state funding is pushing changes in early childhood that are not appropriate for proper child development.

Are mandates appropriate? Early childhood advocates try and sustain the core components of DAP within school contexts. The best classroom practice is one where the teacher understands the classroom and is mindful of the needs of children (Graue, 2010). The way that most teachers instruct has been shifted in reaction to the educational reforms. The implementation of the 2001 NCLB Act initiated new changes, including the fact that many school districts were labeled as "low-performing" in implementing rigorous academic curriculum at earlier ages. This lead to kindergarten and early childhood educators throughout the country reducing the amount of time students were allowed to play and limiting time allotted to integrate play into daily curricula (Bowdon

& Desimone, 2016). Because of NCLB, the Common Core Initiative, and Every Student Succeeds Act of 2015, early childhood education has moved to more work and less playtime in kindergarten. Bowdon and Desimone (2016) confirmed that over the last 15 years, kindergarten classrooms have become more academically focused. A confronting challenge that educators and policy-makers face when examining efficacy of an academic approach to kindergarten is that there is no research that supports it right away (Smith-Rodgers, 2012). Classroom instruction that focuses primarily on standards and assessment accountability actually takes away from rich opportunities for learning (Medellin, 2015). As classroom practices deviate from core values embedded within best practice, new forms of instruction emerge and children are not receiving the best instructional opportunities possible.

Graue (2010) called attention to divergent classroom instruction as a path that is focused on rigid standards and expectations for the child in nondevelopmental ways. Some call these experiences educating young children using developmentally inappropriate practices (DIP) and these types of practices have been shown to compromise the quality of learning environment and later outcomes for children (Parker Neuharth-Pritchett, 2006). The NAEYC's current updated position statement on DAP for children birth to 8 emphasized play-based learning as an alternative mechanism to balancing the push for reduced teaching time to focus on academic activities. Child-centered and teacher-guided approaches, principles of best practice, should be used as a guiding theoretical lens that will set the foundation and guide the discussion of teacher values and classroom practice (Graue, 2010).

Developmental appropriate assessments of achievement. With the increased focus on assessing early childhood students' development earlier, identifying the guidelines for the appropriate integration of assessments is necessary (Medellin, 2015). Assessment can be one of the primary reasons for inappropriate practices in kindergarten (Gullo & Hughes, 2011). With pressures being placed, teachers have the tendency to teach to the test or limit instruction only to the curriculum. This leads to teaching only those concepts and skills that will be assessed on a test. Gullo and Hughes (2011) suggested in order to ensure that children are prepared to perform well on the test, teachers may rely on drill and practice, whether appropriate or not. Gullo and Hughes insisted that when used appropriately, assessment can serve as a method of reaching and sustaining appropriate classroom practices that encourage kindergarten children's learning. When used appropriately, assessment can inform teaching so that developmentally appropriate practices are preserved, while at the same time assuring that academic standards are being met (Gullo, 2006). In order to maintain developmentally appropriate practices, it is important to set assessment guidelines that are accountable and also take place in a kindergarten classroom that supports children's developmental approach to learning (Gullo, 2005).

As early childhood educators develop appropriate assessment education, many phases of learning can and should be addressed. According to Gullo and Hughes (2011), aspects should include how well does the child know the facts, how does the child meaningfully use what they have learned, and can they apply their learning to other situations? The context for the assessment should also be taken into consideration. When assessing children, early childhood educators should use multiple sources of information,

assess the multidimensional aspects of learning, and assess children in multiple learning contexts (Gullo & Hughes, 2011). Learning standards in the school's curriculum should lead the assessment process, but what is assessed and assessment procedures should be related to children's learning experiences. Gullo and Hughes (2011) suggested considering assessing children while they are in the process of learning, which will benefit students and early childhood educators. Assessments can be used as a means for modifying curriculum to meet individual children's needs and can also be used as a way to measure curriculum effectiveness (Gullo & Hughes, 2011).

Referrals

Tiered support systems. Schools face daily challenges in efforts to create and maintain safe and orderly classroom environments where teachers can teach and students can learn (Algozzine & Algozzine, 2009). Multitiered intervention models such as Response to Intervention (RtI) are designed to increase students' learning rates and skill development across the full continuum of student ability levels, no matter the level. Response to Intervention is a multitier approach to the early identification and support of students with learning and behavior needs. The process begins with a universal screening of all children in the general education classrooms and incorporates high-quality instruction at variety of intensities based on the students' needs (Response to Intervention Action Network, 2015). Common features that characterize tier models include screening of all students to identify those who need more or different types of instruction; use of data and objective decision rules to inform instructional placement; provision of high-quality, evidence-based instruction matched to student needs; and ongoing progress monitoring using reliable and valid indicators of skill proficiency to determine the effectiveness of the instruction for individual students (National Association of State

Directors of Special Education, 2008). Students need to receive effective academic and behavior instruction to thrive and reach goals in school.

In an effort to organize and implement delivery of social, behavioral, and academic support, many schools have adopted one or more tiered intervention frameworks. In a multitiered intervention system, screening and progress-monitoring data are used to make decisions about student placement across tiers of instructional intensity. The overall goal of a tier intervention system is to create a system of services to maximize all students' progress. Response to Intervention and other tier intervention system models have recommendations for ways to configure tiers and select curriculum and intervention systems (Marston, 2005).

In models such as RtI, each tier must provide the best quality instruction with intensity of instruction increasing as a student is moved to higher tiers. The structure is widely used for academic interventions prior to referral for special education evaluation and can be adopted for behavioral and social skill needs as well (Fairbanks, Sugai, Guardino, & Lathrop, 2007). Within these frameworks, such as RtI, there are three tiers: Tier I (universal, general education, and core curriculum), Tier II (targeted interventions for at-risk students), and Tier III (more intensive interventions for students with the greatest need; Albrecht, Mathur, Jones, & Alazemi, 2015). Similarly, frameworks, such as positive behavior supports (PBS), exist for providing appropriate interventions to increase social skill and decrease problem behaviors (Horner, Sugai, & Anderson, 2010). If progression does not occur at a tier, a more intense form of instruction must be delivered at a higher tier (Kupzyk, Daly, Ihlo, & Young, 2012).

Academic tiers. As with most educational innovations, achieving clarity about what actually needs to be done is much simpler than working with realities of implementation in schools. Teachers' knowledge and skill in utilizing data and implementing interventions changes significantly from teacher to teacher (Piasta, Connor, Fishman, & Morrison, 2009), meaning some teachers do not know how to match students' skill level to appropriate instruction. Early childhood educators researching this most effective way to match skill levels to appropriate instruction took into consideration whether phonemic awareness and letter recognition early interventions might decrease the severity of reading disability. According to O'Connor, Harty, and Fulmer (2005), a few problems began to emerge after these considerations. First, children need to be identified much earlier than the current special education process permits, allowing those kindergarteners and first graders to benefit from early interventions (O'Connor et al., 2005). Second, early reading interventions can be costly and only successful for a short term. In other studies, instruction is usually delivered in small group settings or through tutoring, which can be difficult to manage in general education environments (O'Connor et al., 2005). Interventions should be used only for the length of time that they are needed. Third, most research in this area has been conducted for one to two years, which may not be enough time for students to respond.

Tiered academic systems need to be well planned and designed to meet the specific needs of all students. Using models such as RtI allows students to be exposed to increasingly intense interventions in a tiered model of support based on their needs (Noltemeyer & Sansosti, 2012). Based on their response to intervention, as measured by outgoing data collection, important educational decisions are made. If limited progress is demonstrated after multiple interventions or if progress is only made with intense and

highly individualized intervention, a referral for special education may be made. Academic support is vital to the success of early childhood students; however, it is not the only support that students need in order to appropriately grow in early childhood settings. Academics can sometimes take the backseat to behaviors that inhibit students from focusing on academic growth and achievement.

Behavior. Disruptive behavior is the most common reason for student referral (Abidin & Robinson, 2002). Behaviors that interfere with the teacher's ability to teach and students' ability to learn can be considered disruptive behaviors. Disruptive behaviors in early childhood tend to continue over time without intervention, leading to further more serious problems down the road (Meany-Walen, Bratton, & Kottman, 2014). Knowing and understanding the impact of disruptive behaviors in early childhood students is important in for teachers to implement early interventions and minimize the influence of these behaviors.

Early prevention is necessary to improve long-term behavior. In order to decrease the potential development of school-related problems, incorporating prevention processes for controlling these problem behaviors was found to be more useful in general behavior management approaches (Algozzine, Daunic, & Smith, 2010). Developing a well-thought-out plan of prevention improves the efficiency of how the school, classroom, and behavior support systems operate. Schools need practical, proven methods for improving social behavior and providing behavior support, in order for the processes to be effective and efficient (Algozzine & Algozzine, 2009).

Best practice in using effective classroom management and preventing disruptive behaviors is implementing proactive approaches. However, when dealing with disruptive

behaviors in the classroom, educators often resort to reactive approaches (Benedict Horner, & Squires, 2007). As teachers implement proactive approaches with challenging students, the behavioral needs of other students are often neglected, leading to more students exhibiting behavioral problems (Benedict et al., 2007). In order to manage challenging student behaviors, early childhood educators need comprehensive evidence-based interventions (Caldarella, Williams, Hansen, & Willis, 2014). In order for the evidence-based interventions to be effective, it is important for schools to develop or adopt a system that integrates these interventions into everyday school life. In today's schools, systems exist for early childhood educators' and schools' use to increase positive behaviors throughout the school.

Positive Behavior Support (PBS) is a program that educators can incorporate into their schools and classrooms to prevent neglecting the behavioral needs of others (Benedict et al., 2007). In addition, the program still addresses challenging behaviors of some students (Benedict et al., 2007). Positive Behavior Support is an evidence-based, preventative approach designed to eliminate challenging behaviors by reinforcing appropriate social skills (Cohn, 2001). The foundational components of PBS include (a) nurturing positive student relationships and interactions with other students and adults, (b) defining and teaching behavioral expectations clearly during instruction time, and (c) providing feedback on students' use of appropriate social skills throughout the day (Benedict et al., 2007).

Regardless of the established efficacy of PBS practices, several educators still have difficulty with consistently challenging behaviors from some students. Intervention behavioral programs such as PBS involve a tiered system of prevention and intervention.

According to Noltemeyer & Sansosti, 2012), intervention programs typically involve six components: (a) identifying a statement of purpose, (b) establishing schoolwide behavioral expectations, (c) teaching schoolwide expectations, (d) encouraging expected behaviors, (e) discouraging problem behaviors, and (f) engaging in data collection and decision making (Lewis & Sugai, 1999).

Early childhood student disruptive behaviors. Early childhood educators often determine that problem behaviors are the Number 1 concern in the field (Conroy, Davis, Fox, & Brown, (2002).) As students are learning to build language skills and develop capacities to regulate their thoughts, emotions, and behaviors during their early years education, problem behaviors emotionally and behaviorally occur more often (Egger & Angold, 2006). The behavior problems that occur require teachers to spend more time dealing with misbehaviors rather than focusing on educating. According to Beaman, Wheldall, and Kemp (2007), the prevalence of early elementary students displaying disruptive behaviors is between 7% and 10%. With the occurrence of disruptive behaviors, many early childhood educators tend to have the feeling of being underprepared and even resort to leaving the profession because a of lack of classroom management skills (Reinke, Herman, & Stormont, 2012).

Delivering a quality education to all students is the goal of educators. In order to deliver this, classrooms are set up differently and certain expectations are set so that each teacher can effectively teach and manage a group of students (Menzies & Lane, 2011). Jackson (1990) described the overpowering affect the classroom environment has on students' experience in education. He noted that students have a variety of feelings and emotions based on conditions surrounding them at school. Students feel subject to the

teacher's control, worry constantly about evaluation, and feel as though they are treated as part of the crowd (Jackson, 1990). Students who cannot conform or adjust to such conditions surrounding them at school are less likely to be successful because few alternatives exist to the prevalent mode of schooling. Early years of education are critical for students' successful development, not just because they are the foundational years, but also because preschool, kindergarten, and first-grade classrooms are where students learn how to negotiate the school environment (Menzies & Lane, 2011).

Summary

It is known that play is an important tool in a child's learning and development; however, the use of play in current early childhood classrooms is in question in today's classrooms. Incorporating developmentally appropriate practices is necessary in the proper development of children. Chapter One contained a brief overview of early childhood educational practices and the importance and impact of play in classrooms.

This chapter offered background information on the development of early childhood education, the evolution of play and appropriate practices, state and national mandates and the disappearance of play, and an overview of both academic and behavioral intervention systems used to help student achievement and growth. This chapter also provided a theoretical framework and research findings on play-based learning and developmentally appropriate practices. While research findings demonstrated the positive and appropriate impact of play on early childhood development, there has been no specific research focusing on the differences there are between classrooms that use or do not use play on kindergarten students' academic achievement and behavior.

Chapter Three describes the method used to identify and select kindergarten classrooms utilizing play-based instruction. This chapter also outlines the collection of survey data for the selected districts and demographic areas for the study. Chapter Four offers a presentation of these findings. Chapter Five provides a summary of this project and the educational implications and significance of these findings for educational decisions and future studies.

CHAPTER THREE

METHODOLOGY

Introduction

Educators have viewed the inclusion of play in early childhood development as a key factor for many years. Even after knowing the importance of play in early childhood development, the shift in instructional and learning practices in kindergarten classrooms is continuously changing. This change can be attributed to the pressures that are placed on schools and teachers through state and national mandates. Early childhood teachers are faced with decisions about implementing developmentally appropriate practices, which are influenced by new political and educational mandates versus a learner centered curriculum (Riley, 2012). The demands for new achievement measures have caused unexpected consequences, which can negatively affect early childhood students (Darling-Hammond, 2007).

The emphasis of academics through accountability measures versus developmentally appropriate practices is problematic for students who have challenging behaviors (Menzies & Lane, 2011). Menzies and Lane (2011) continued to explain that as a result of the push, there is a diminishing tolerance for students who cannot thrive in a more demanding environment, sometimes resulting in exhibiting more difficult behaviors more often. Regardless of the source of difficulties, students who are not equipped to meet these multiple academic, behavioral, and social demands of current early childhood classrooms are not being successful (Walker, Ramsey, & Gresham, 2004). After examining research on developmentally appropriate practices in early childhood education, the researcher sought to determine the difference in academic achievement and

behavior between kindergarten classrooms that incorporated developmentally appropriate play-based learning versus classrooms that did not in the state of Missouri.

The purpose of this quantitative study was to better understand the difference between kindergarten students' academic and behavior referrals in classrooms that used play-based learning and those that did not. The researcher examined kindergarten teacher's referrals to determine the following:

3. What is the difference in the academic achievement of kindergarteners in classrooms that use play-based learning and those who do not as measured by examining their academic referrals?
4. What is the difference in the behavior of kindergarteners in classrooms that use play-based learning and those who do not as measured by examining their behavioral referrals?

Research Design

The scope of this study attempted to encompass all full day kindergarten classroom settings across Missouri public schools to offer a comprehensive analysis to identify if there was a difference in Missouri kindergarten students' academic referrals and behavioral referrals in classrooms that used play-based learning and those that did not. Demographic questionnaires were submitted to 1,064 principals in Missouri public schools with kindergarten classroom settings including those that did incorporate play-based learning and those that did not to identify if there was a difference in kindergarteners academic and behavioral referrals. The study results were disaggregated by:

1. whether classrooms use play-based learning or non-play-based learning curriculum,
2. types of referrals (behavior, academic, or both),
3. number of students referred, and
4. number of referrals per student.

The main goal was to determine if the learning environments of play-based versus non-play-based show up in the difference in kindergarten students' academics and behaviors by examining their academic and behavior referrals.

Participants

The subjects asked to take part in this study were teachers of kindergarten students in 518 Missouri public school districts that include kindergarten classrooms. By inviting a large sample size, the opportunity to collect data from across all demographic areas in the state of Missouri was attempted. A permission letter was sent to 1,064 Missouri public school district elementary principals in electronic format first. The introduction and permission letter (Appendix A) was disseminated to all Missouri elementary school principals to seek permission and determine if the school district had kindergarten classrooms. Once permission was granted, the introductory letter, survey, and kindergarten teacher informed consent form (Appendices A, B, and C) were disseminated to Missouri's public elementary principals leading in a school with kindergarten classrooms. The principals were asked to forward the survey to teachers in classrooms serving kindergarten students because rarely do other grade levels incorporate play-based learning. A survey instrument was given to these kindergarten classroom teachers in the state of Missouri to identify if they used play-based learning or not and to

determine how many students were referred academically and/or behaviorally. Considering many school districts in the state had more than one kindergarten classroom, and teachers varied in the pedagogies, each kindergarten teacher in that district was surveyed.

Selection/Sampling

The goal of the researcher was to have a representative sample of teachers from diverse ethnicities, socioeconomic levels, and various school district demographics in order to make the results generalizable. Utilizing the Missouri Department of Elementary and Secondary Education database, a list of Missouri public schools containing a kindergarten setting was generated. The researcher then obtained a master e-mail list of those Missouri public school administrators with kindergarten classrooms from the Missouri Department of Elementary and Secondary Education. The associated school administrators from this list were provided an introductory letter explaining the survey (Appendix C), a copy of the electronic questionnaire, and asked to respond either "yes" or "no" to gain permission to submit to kindergarten teachers within their school setting. Once school district administrators granted permission, the survey was administered electronically to kindergarten teachers using the QuestionPro software platform (See Appendix B.) Five hundred eighteen Missouri public school districts were invited to participate in the study, including 1,064 individual buildings. Out of the 1,064 individual buildings, 385 school buildings agreed to participate, which included 1,030 kindergarten classrooms. Three hundred twenty-nine teachers actually responded to the survey.

Consent

In accordance with the guidelines of Southwest Baptist University regarding the protection of human participants, a request for review was submitted to the Research Review Board (RRB) for approval to provide a questionnaire for approximately 518 participating school districts for this study. Upon receiving RRB approval in December of 2017, participant recruitment and data collection began. Participant consent was given by completing the online survey for involvement in the study. The submitted forms outlined participant confidentiality, the ability to withdraw at any time without penalty, lack of any foreseen harm to respondents, and a brief overview of the study's aim to determine if there was a difference in the academic achievement and behavior of kindergarteners in classrooms that used play-based learning or those who did not as measured by examining their academic and behavior referrals. All survey data were stored on the researcher's computer with a secured password.

Questionnaire

The survey instrument was designed by the researcher, based on experience as an early childhood educator and the researcher's extensive review of the literature. The survey design was original and not based on any specific reviewed survey and was made up of a combination of multiple-choice and open-ended questions, including both quantitative and qualitative information. From knowledge gained through the review of literature and the researcher's professional experiences, the researcher developed a survey to determine if there was a difference in kindergarteners' academic referrals and behavioral referrals between classrooms that used or did not use play-based learning. The researcher created a demographic survey to understand the kindergarten classroom's

curriculum and the number of students referred academically, behaviorally, or both. The survey was created using QuestionPro, a Web-based surveying tool. All teachers in the identified school districts and/or school buildings that agreed to participate in the study were surveyed using the survey instrument located in Appendix B. The survey contained 22 questions and was divided into three parts: play-based learning, tiered support systems, and students receiving academic and behavior support. Questions 1, 2, 3, and 4 asked the respondent a simple question about students and systems in place currently in their school and classroom. Question 1 asked participants to identify if they were a full day program or not. If participants answered "yes" to question 1, they continued the survey. If they answered "no" to question 1, they stopped the survey. Question 2 asked participants to identify the number of students in their current kindergarten classroom. Questions 3 and 4 helped categorize kindergarten classrooms into two categories because they identified if that classroom used play-based learning or not and had teachers specify how much time was spent using play-based learning. This information was vital in order to determine in which category the school would be placed for data analysis. Once classrooms were identified as using play-based learning or not, participants were asked to identify if they had referrals. Questions 5 and 6 categorized participants by asking them to identify if they used just behavioral referrals, academic support referrals, or both. Questions 7-9 specifically asked participants to identify how many students had academic referrals, behavioral referrals, or both academic and behavioral referrals. Questions 10-12 asked students to elaborate on repeat offenders that had received multiple referrals for either just academics, just behavior, or both academics and behavior. Questions 13-17 were specific to academics in the classroom and asked participants to elaborate on daily

routines and schedules. Questions 17-22 asked participants to list problem behaviors, problem times throughout the school day, activities being completed during that time, and interventions taken prior to the behavioral referral. Responses to all questions answered the overarching research questions, the results were analyzed using descriptive statistics and a t-test comparing kindergarten classrooms that used play-based learning and those classrooms that did not use play-based learning to test for statistical significance.

Survey Construction and Rationale

The survey used in this study was researcher developed and tested by a panel of experts to make sure questions matched the scale for which they were intended, revisions were made, and then the pilot was sent out. Once results of the pilot were in, the mean values were run to ensure that questions of the survey were valid and reliable. The survey was created utilizing information gained from the literature review regarding early childhood education, developmentally appropriate practices, and play-based learning. Determining the practices of Missouri early childhood educators on the academics and behavior of kindergarten students can serve as the basis for continued research and implementation of play-based or non-play-based curriculum in kindergarten classrooms.

The first scale, academics, was derived from the research surrounding the practices of kindergarten classrooms including play-based learning. Play-based learning is described as learning through which children organize and make sense of the world around them, engaging with people, objects, and representations (Department of Education and Training, 2016). Academic referrals include Tier II and Tier III referrals. Tier II interventions were students who needed support beyond regular classroom strategies or who were predicted to be at risk through a screening process (Mellard et al.,

2011.) Tier III referrals included referrals of students that had received additional support interventions but who were still experiencing problems and were at risk of developing more severe problems prior to Special Education referrals (Ervin, n.d.).

The second scale, behavior, was derived from the research surrounding kindergarten students' social and emotional behaviors and tiered support behavior referrals. As students are learning and developing skills, problem behaviors emotionally and behaviorally occur more often (Egger & Angold, 2006). Knowing and understanding the impact of disruptive behaviors in early childhood students is important for early interventions to be implemented and minimize the influence of these behaviors. A behavior referral is a form teachers fill out and submit to the office or behavior intervention team with information about the specific incident and events leading up to the incident as well as steps taken by the teacher. For the purpose of this study, this included both minor and major office referrals and students referred to tiered support systems for behavioral concerns (Matalone, n.d.).

The last scale, academics and behavior, was derived from the research surrounding both the practices of academics and behavior, including tiered support systems and referrals. Tier II and Tier III behaviors and academic referrals included minor, major, or team referrals. These included students who may have received multitiered supports. In a multitiered intervention system, screening and progress-monitoring data are used to make decisions about student placement across tiers of instructional intensity.

The additional demographic data collected allowed separation of the various populations and comparison of groups, for example, play-based and non-play-based

environments, number of students, number of students with multiple referrals, and number of referrals per student. To increase reliability, the survey consisted of questions asking the same information but in multiple ways to ensure respondents were giving consistent answers as opposed to marking responses without scrutiny. Survey questions noting the applicable scales are shown in Table 1.

Table 1

Table of Specifications

Question	Academics	Both	Behavior
1. Are you a full day kindergarten program?		X	
2. How many students do you have in your kindergarten class?		X	
3. Does your kindergarten classroom use play-based learning as defined above?		X	
4. Approximately what percent of your day is spent in play-based learning?		X	
5. Does your classroom use some type of referral process for behavior and/or academics?		X	
6. If you answered YES to Question 5, what referrals do you use? a. just academic b. just behavioral c. both a and b		X	
7. If you answered "just academic" to Question 6, how many students have you referred this year as defined above in Tiers II and III? Total number of	X		

academic referrals: _____			
8. If you answered "just behavioral" to Question 6, how many students have you referred this year as defined above in Tiers II and III? Total number of behavior referrals: _____			X
9. If you answered "both academic and behavioral" to Question 6, how many students have you referred that have had both academic and behavior referrals as defined above in Tiers II and III?		X	
10. How many academic referrals (Tier II and/or Tier III) do your repeat offenders have?	X		
11. How many behavioral referrals (Tier II and/or Tier III) do your repeat offenders have?			X
12. How many total academic and behavior referrals (Tier II and/or Tier III) do your repeat offenders have?		X	
13. How many students are referred because the students started kindergarten lacking preschool experience?	X		
14. In your opinion, have increased academic standards impacted the number of academic referrals you have experienced?	X		

15. What types of academic concerns have you referred?	X	
16. How many instructional hours do you have in an average school day?	X	
17. How many hours are planned that students are interacting and exploring through play?	X	
18. What types of behavioral offenses have you referred?		X
19. In your opinion, have increased academic standards impacted the number of behavioral referrals you have experienced?		X
20. What time throughout the day do most behavior referrals occur?		X
21. What activities are typically taking place during the times most inappropriate behaviors occur?		X
22. What disciplinary steps/ interventions were taken prior to the behavioral referral?		X

Pilot Process

The survey used in this study was researcher developed and tested appropriately for validly and reliability. Explanation of the testing process follows. Survey questions were created utilizing information gained from the literature review regarding

kindergarten practices and developmentally appropriate practices. Upon accurately defining these terms: play-based learning —academic referrals —and behavioral referrals, several questions were created to garner information about each topic. Each question was thoroughly investigated to analyze the connectivity of the statement to the definition. The researcher and a university professor examined and revised each statement several times to ensure the statements would gather the intended information. The survey was then entered into the QuestionPro system. At this point the survey was ready for the pilot process.

In an effort to increase reliability, the survey consisted of questions focused around similar concepts for both behavior and/or academics to ensure respondents were giving consistent responses as opposed to marking routinely without examination of the ideas presented. Drafts of the survey were submitted numerous times to the researcher's statistician and were revised as needed. The pilot survey was administered to experts in the education field. The results of these pilot surveys were employed to review and improve the survey tool. The pilot process consisted of the following steps:

1. Expert Validity Pilot #1: The expert validity pilot was utilized to address content validity, the alignment of the survey questions, and the scale they were intended to assess. The researcher used the first version of the survey instrument as presented in Appendix B to gather feedback from experts in the field of early childhood education. Those experts were one current elementary principal, one current early childhood director, three current kindergarten teachers, and one university instructor with a history of early childhood education. The survey was sent to each of these experts, and they were asked to

comment or respond on the survey's nature, clarity, and effectiveness. Specifically, the researcher sent out Rovinelli and Hambleton's (1977) Index of Item-Objective congruency. A scale of -1, 0, and 1 was referenced to gain the needed information. A response of -1 indicated the question did not ask what was intended, 0 was neutral, and 1 signified the question did ask what was intended. Feedback from the experts was used to further revise and improve the survey instrument. The survey was sent to these six expert early childhood educators on December 6, 2017, and all six had completed the survey as of December 9, 2017. The researcher had conversations electronically or in person with the participants to further analyze responses and refine intended responses on the item-objective congruency survey. Table 2 represents the Rovinelli and Hambleton's index aggregate results for each question of the survey. A value of 1.00 was the highest possible value, and with each of the respondents indicating a 1, the statement highly matched the intended scale. Ideally, values should be .67 or greater. Any questions that did not obtain above .67 were revised.

Table 2

Index of Item-Objective Congruency

Question	Index
1. Are you a full day kindergarten program?	1.00
2. How many students do you have in your kindergarten class?	1.00
3. Does your kindergarten classroom use play-based learning as defined above?	0.67
4. Approximately what percent of your day is spent in play-based learning?	1.00
5. Does your classroom use some type of referral process for behavior and/or academics?	1.00
6. If you answered YES to Question 5, what referrals do you use? a. just academic b. just behavioral c. both a and b	1.00
7. If you answered "just academic" to Question 6, how many students have you referred this year as defined above in Tiers II and III? Total number of academic referrals: _____	1.00
8. If you answered "just behavioral" to Question 6, how many students have you referred this year as defined above in Tiers II and III? Total number of behavior referrals: _____	1.00
9. If you answered "both academic and behavioral" to Question 6, how many students have you referred that have had both academic and behavior referrals as defined above in Tiers II and III?	1.00
10. How many academic referrals (Tier II and/or Tier III) do your repeat offenders have?	0.83

11. How many behavioral referrals (Tier II and/or Tier III) do your repeat offenders have?	0.83
12. How many total academic and behavior referrals (Tier II and/or Tier III) do your repeat offenders have?	0.67
13. How many students are referred because the students started kindergarten lacking preschool experience?	1.00
14. In your opinion, have increased academic standards impacted the number of academic referrals you have experienced?	1.00
15. What types of academic concerns have you referred?	0.83
16. How many instructional hours do you have in an average school day?	1.00
17. How many hours are planned that students are interacting and exploring through play?	1.00
18. What types of behavioral offenses have you referred?	1.00
19. In your opinion, have increased academic standards impacted the number of behavioral referrals you have experienced?	1.00
20. What time throughout the day do most behavior referrals occur?	1.00
21. What activities are typically taking place during the times most inappropriate behaviors occur?	1.00
22. What disciplinary steps/ interventions were taken prior to the behavioral referral?	1.00

2. Expert Validity Pilot #2: After the first expert validity, the researcher met with the advisor and revised question, 3, 10, 11, 12 and 15 in attempt to clarify and

increase their values. Specifically on question 3, the researcher included the definition of play-based learning prior to the question. Questions 10, 11 and 12 were revised to include a range of choices for the participants to select from. Participants were asked to circle the correct number within those ranges. Question 15 was revised to include more specific directions regarding how to list behaviors. The researcher then sent the revised survey to the expert panel to preview a second time. At that point, all questions came back at the 1.00 level (Table 3), therefore, all questions remained in the survey for the pilot.

Table 3

Index of Item-Objective Congruency (Revised Survey)

Question	Index
1. Are you a full day kindergarten program?	1.00
2. How many students do you have in your kindergarten class?	1.00
3. Does your kindergarten classroom use play-based learning as defined above?	1.00
4. Approximately what percent of your day is spent in play-based learning?	1.00
5. Does your classroom use some type of referral process for behavior and/or academics?	1.00
6. If you answered YES to Question 5, what referrals do you use? a. just academic b. just behavioral c. both a and b	1.00
7. If you answered "just academic" to Question 6, how many students have you referred this year as defined above in Tiers II and III? Total number of academic referrals: _____	1.00
8. If you answered "just behavioral" to Question 6, how many students have you referred this year as defined above in Tiers II and III? Total number of behavior referrals: _____	1.00
9. If you answered "both academic and behavioral" to Question 6, how many students have you referred that have had both academic and behavior referrals as defined above in Tiers II and III?	1.00
10. How many academic referrals (Tier II and/or Tier III) do your repeat offenders have?	1.00

11. How many behavioral referrals (Tier II and/or Tier III) do your repeat offenders have?	1.00
12. How many total academic and behavior referrals (Tier II and/or Tier III) do your repeat offenders have?	1.00
13. How many students are referred because the students started kindergarten lacking preschool experience?	1.00
14. In your opinion, have increased academic standards impacted the number of academic referrals you have experienced?	1.00
15. What types of academic concerns have you referred?	1.00
16. How many instructional hours do you have in an average school day?	1.00
17. How many hours are planned that students are interacting and exploring through play?	1.00
18. What types of behavioral offenses have you referred?	1.00
19. In your opinion, have increased academic standards impacted the number of behavioral referrals you have experienced?	1.00
20. What time throughout the day do most behavior referrals occur?	1.00
21. What activities are typically taking place during the times most inappropriate behaviors occur?	1.00
22. What disciplinary steps/ interventions were taken prior to the behavioral referral?	1.00

3. Validity Pre-Pilot: The researcher also observed three colleagues completing the pilot and had conversations regarding the ease of taking the survey,

problematic questions, suggested revisions, and other questions aimed at improving the survey. The input was considered and used to revise the survey before submitting it to the participants for a validity pilot.

4. Validity Pilot: After the expert rating revisions were completed, the survey instrument was given to a sample population before actual administration in order to determine reliability and validity of the instrument. The pilot was given to Arkansas public school full day kindergarten teachers in order to have a similar population and not eliminate participants from the actual study population. Arkansas was chosen because Arkansas academic standards and Missouri learning standards were both based on the common core standards. In addition, after curriculum from both Missouri and Arkansas were reviewed, common standards existed in all disciplines and were based on the common core state standards. The respondents were not participants in the researcher's final study. The survey was sent as a pilot to 50-plus kindergarten teachers in Arkansas. The pilot survey results were then analyzed with the researchers advisors to determine if the questions were clear and understood. In addition, the researcher and advisors analyzed the results to ensure that the wording was clear, there were no confusing results, nor was there odd or offensive language. After the initial pilot, the researcher completed a follow-up with the pilot group, clarifying question's intent was being communicated and that the wording was easily understood. In addition, the researcher asked if the length, format and flow of the survey were ideal for the study. After the follow-up, the researcher was able to determine that the format and delivery of the survey tool

was designed to receive the best possible data. The initial testing confirmed that the survey instrument held strong reliability with each scale. Upon review of the survey the researcher reflected and gleaned advice from her supervisor, edits were made, and all 22 questions remained in the final survey.

Validity and Reliability

"Reliability is the degree to which an assessment tool produces stable and consistent results" (Phelan & Wren, 2007, p. 1). To determine reliability and test if the results were consistent with similar populations, a follow up interview with a few participants in the pilot group was utilized for each question during the pilot testing (Pelham, 2013). "Validity refers to how well a test measures what is purported to measure" (Phelan & Wren, 2007, p. 3). To test validity, the researcher field tested the instrument on six experts in the field of early childhood education. The individuals were familiar with the content of the questions to determine if the questions measured what each question was intended to determine, construct validity. Face validity was conducted when crafting the research questions to help determine if the questions measured what was intended by the overarching research questions. The questions on the survey were determined to answer the survey questions based upon face validity.

Instrumentation

To meet the requirements of the study, the instrument was designed by the researcher and advisors and revised based on feedback from the panel of experts described above first and then the pilot group also described above. The researcher, using the Web-based survey tool, QuestionPro, designed an indication of whether the kindergarten classroom used play-based learning, and how many students from their

kindergarten classroom were referred academically, behaviorally, or both, how many repeat referrals did offenders have, and other clarifying questions about academics and behavior. The survey was sent to 1,064 Missouri public school district elementary schools in an electronic format because the Missouri Department of Elementary and Secondary Education did not record the number of school districts in Missouri that had kindergarten classrooms in their elementary school. A determination of the Missouri school districts that had kindergarten classrooms was identified with the distribution of the survey instrument.

An e-mail was sent to each Missouri public school that contained an introductory letter (Appendix A), the attached survey (Appendix B), and the consent form (Appendix C). In order to determine the sample size, the researcher established buildings through the Missouri Department of Elementary and Secondary Education as well as some principals noted the number of kindergarten teachers in their elementary buildings. Principals of districts that included buildings housing a kindergarten classroom were asked permission to disseminate the survey to the kindergarten teachers in those buildings. The principals were then asked to forward the attached survey to the kindergarten teachers within their buildings. Only teachers who worked in the districts or buildings that meet the criteria were surveyed. The introductory letter, survey instrument, and kindergarten teacher informed consent are located in Appendix A, Appendix B, and Appendix C respectively.

The results of the survey sent to teachers in the district were anonymous. State-documented information allowed the researcher to determine how many public school districts in Missouri had kindergarten classrooms. Once districts with a kindergarten

classroom were identified, the principals of those districts were asked to grant permission through e-mail and then forwarded the survey to kindergarten teachers.

A completed survey was recorded as the teacher's agreement to participate in the study. Results of the survey instrument will remain anonymous. Demographic information was collected to assist in separating groups for analyzing and comparing sets of data. A window of 4 weeks was allowed for participants to complete the survey. Identified schools with incomplete questionnaire data were sent a follow-up e-mail 2 weeks after the initial e-mail as a reminder to those who had yet to complete the survey. A final follow up e-mail was sent after the third week to participants who had not completed the survey. School districts that still did not complete the online survey were then contacted via telephone to collect the survey information.

The researcher completed an ethics class and all of the following ethical standards were applied. Participants in the study were informed their participation was completely voluntary. The researcher did not use any identifying information to collect the data. Care was taken to ensure confidentiality in the responses in regard to identifiable information of the respondents. Results were uploaded into SPSS. After the completion of the study, the researcher deleted the survey report to ensure data would not be shared in any way. The researcher developed the survey to send to all public elementary principals, and the surveys were then forwarded to kindergarten teachers in the state of Missouri in January 2018. Prior to distribution, the survey was field tested by kindergarten classrooms in Arkansas elementary schools. To ensure representation of the population was considered, the field tested schools were the same grade level as the final study and used similar standards as identified by their curriculum. Teachers were asked to answer all questions

with the assumption the questions applied to their full day kindergarten classrooms. Upon successful gathering of this information, survey data were analyzed.

Data Analysis

This quantitative descriptive study was conducted to determine if there was a difference in the academic referrals and behavioral referrals of kindergarteners in classrooms that used play-based learning or those who did not. Each of the research questions analyzed responses from two different groupings of respondents. The responses reflected the differences between each set of groups. Using SPSS, analysis was conducted to determine if a statistically significant difference existed between the two independent variables play-based and non-play-based learning and the three dependent variables of academics, behavior, and both behavior and academics. Combining Questions 7, 10, 13, 14, 15, 16 and 17 of the survey created the first dependent variable, academics. Combining Questions 8, 11, 18, 19, 20, 21 and 22 of the survey created the second dependent variable, behavior. Combining Questions 1, 2, 3, 4, 5, 6, 9, and 12 of the survey created the third dependent variable, academics and behavior.

Once the data were compiled and classrooms were grouped into two groups, an independent samples t-test was utilized to assess if there was a statistical significant difference between kindergarten classrooms using play-based learning and those using non-play-based learning, by specifically analyzing the dependent variables academics, behavioral and both academic and behavioral. According to Field (2005), an independent samples t-test simply compares the means between two unrelated groups on the same continuous, dependent variable. Specifically in this study the t-test attempted to determine whether the mean of one variable differed significantly from the mean of

another. An independent samples t-test statistical significance and the t-test's effect size are the two primary outputs of the t-test. Statistical significance indicated whether the difference between play-based and non-play-based classrooms was likely to represent an actual difference between populations and the effect size indicated whether the difference was large enough to be meaningful. In addition open ended questions 15, 18, and 22 were analyzed as qualitative data descriptively for results. The responses to these questions were coded and then grouped according to like themes.

The null hypothesis for the comparison of responses of kindergarten classrooms using play-based learning with those that did not use play-based learning was there would be no statistically significant difference on kindergarten students' academic referrals or behavioral referrals. These data were exported to a Microsoft Excel sheet directly from QuestionPro. The analysis of the quantitative data was inferential data. QuestionPro was used because of the program's ability to create and organize survey data electronically. The quantitative data were analyzed using SPSS software because of the ability to statistically analyze survey data using a variety of statistical tests. Computerized checks were completed to determine any outliers.

Statistical analysis of the quantitative data was completed using an independent samples t-test to determine whether group differences were significant between schools using play-based learning and schools that were not using play-based learning in students' behavioral and academic referrals. In addition descriptive statistics were analyzed to determine the mean, range and standard deviation of the data and inferential statistics were used to infer what the data was revealing about play-based and non-play-based classrooms. The results of the SPSS reports are included in the next chapter.

Summary

This chapter outlined the process and methodology for this study. A demographic questionnaire was used to identify schools with kindergarten classrooms and those that use play-based learning and those that did not use play-based learning. Once identified, the process for retrieving the number of students referred for academics and behavior was described. The use of the survey and its validity and reliability as the instrumentation for examining student data were also addressed. The plan for analyzing the data was then outlined utilizing an independent samples t-test. Chapter Four will offer an analysis of survey data for schools with play-based learning and those without. Chapter Five will provide a summary of this project and the educational implications and significance of these findings for educational decisions and future studies.

CHAPTER FOUR

ANALYSIS OF DATA

Introduction

Research suggests a need for play-based learning in early childhood classrooms. With the demands of state and national legislation and the pressure for student achievement, kindergarten classroom curriculum has been altered to address those needs (Graue, 2010). Knowing the importance of implementing developmentally appropriate learning opportunities and having to address new achievement measures and demands, early childhood teachers are faced with decisions that could negatively affect students (Darling-Hammond, 2007; Riley, 2012). Currently, there is a lack of research and information on play-based learning and how it impacts students' achievement and behavior specifically in kindergarten. The purpose of this study was to identify the differences between Missouri kindergarten classrooms who used play-based learning and those who did not through examining their behavioral and academic referrals. The researcher sought to identify the differences between play-based and non-play-based classrooms.

The researcher detailed the procedures for conducting the study in Chapter Three including the participants and the selection process. The researcher also described the research setting pertaining to kindergarten classrooms in Missouri public schools. Research design was outlined and data treatment discussed. The final survey results were uploaded into SPSS software program for analysis. Descriptive statistics were utilized to present quantitative data in a simple and measurable way. Inferential statistics were applied to infer what the data were revealing about the given population. Data will be presented in this chapter to give insight into the differences in kindergartener's academic

referrals and behavioral referrals between play-based and non-play-based curriculum in Missouri kindergarten classrooms. The following research questions were addressed in three scales:

1. What is the difference in the academic achievement of kindergarteners in classrooms that use play-based learning and those who do not as measured by examining their academic referrals?
2. What is the difference in the behavior of kindergarteners in classrooms that use play-based learning and those who do not as measured by examining their behavioral referrals?

In an effort to answer the aforementioned research questions, the following null (H0) hypotheses were investigated:

1. H_{01}: Play-based curriculum will have no statistically significant difference on kindergarten students' academic achievement as measured by their academic referrals.
2. H_{02}: Play-based curriculum will have no statistically significant difference on kindergarten students' behavior as measured by their behavioral referrals.

The researcher utilized QuestionPro to distribute a survey to kindergarten teachers in Missouri Public Elementary Schools (see Appendix B). For the purpose of this study the researcher chose to eliminate all Missouri school districts that operated as alternative, charter, private, online, or magnet schools. In addition, schools that were part of treatment facilities were not used for this study. QuestionPro allowed the researcher to distribute the survey electronically and collect teacher data with automaticity. The researcher first needed to obtain consent from the building principal. Principals who

agreed to participate in the study were then given instructions to forward the survey link to the kindergarten teachers in their building. Teachers were provided with directions, confidentiality information, and a participation agreement.

Upon completion of the surveys, all responses were downloaded, combined for overall scores, and uploaded to the IBM Statistical Package for Social Sciences Statistics (SPSS) program for complete analysis. The final survey results included 329 responses, representing teachers from 385 school buildings. The researcher acknowledges the sample size may limit the ability to generalize to the larger population, and recommends further research in the conclusions of this study. As the study was descriptive in nature, quantitative analysis was utilized to investigate each of the research questions through analyzing descriptive data and conducting an independent samples *t*-test statistical method to determine the statistically significant difference between play-based and non-play-based classrooms. In order to address the null hypotheses, the researcher was looking for statistical significance that indicated play-based curriculum did not have an impact on kindergarten students' academic achievement and behavior. Further analysis was done about each survey question to determine common themes and make assumptions about the way teachers responded to the survey. In total, 1,064 individual elementary school buildings were identified as possible participants with 385 school buildings agreeing to participate (36.1%), which included 1,030 kindergarten classrooms. Out of the 1,030 kindergarten classrooms, 329 teachers actually responded to the survey, resulting in a 31.9% return rate.

Descriptive Statistics

When completing the survey, the participants answered questions regarding demographics of their current building and classroom. The demographic results are displayed in Table 4. The researcher focused on full-day kindergarten classrooms, number of students in the classroom, play-based or non-play-based curriculum, amount of time spent in play-based curriculum, whether a referral process was used, and whether classrooms used academic, behavioral, or both academic and behavioral tiered support systems. These six demographic areas assisted in answering the primary research questions. The number of participants, percentage of participants, mean, and ranges for the demographic frequencies of this survey instrument are shown in Table 4. The number of participants was based on 329 total participants. The percent column indicates the percentage of the 329 total participants selecting that choice. The mean signifies the average of responses for that question on the returned surveys. The range designates the lowest and highest possible numbers for each question.

Table 4

Demographic Results

Demographics For Research	Participants ($N = 329$)	Percent	Mean	Range
Full-Day Kindergarten				
Yes	329	100%	1.00	1 – 1
No	0	0%		
Number of Students				
0 – 10	10	00.03%	18.34	2 - 29
11 – 15	31	00.09%		
16 – 20	194	58.96%		
21 – 25	83	25.22%		
26+	5	00.01%		
Play-Based Curriculum				
Yes	110	33.3%	1.67	1 - 2
No	219	66.7%		
Play-Based Learning Time				
0-25	176	53.3%	1.62	1 - 4
26-50	112	33.9%		
51-75	33	10.0%		
76-100	8	2.7%		
Referral Process				
Yes	325	98.5%	1.02	1 - 2
No	4	1.5%		
Types of Referrals Used				
Academic	24	7.2%	2.77	1 - 3
Behavioral	30	9.1%		
Both Academic and Behavioral	275	83.6%		

The first question of the survey identified all of the participants as having a full-day kindergarten classroom. The participants were then asked to identify the number of students in their kindergarten classroom. The mean number of students was 18.34, which ranged from 2 to 29 students per classroom. Question 3 of the survey distinguished

classrooms that used play-based learning, defined as "Children manipulate objects, act out roles, experiment with materials, and explore with song, dance, games, toys and the arts at least 50% of the day" (Karia, 2014, pg. 12). Out of the 329 participants, 110 (33.3%) classrooms were identified as using play-based curriculum during the school year and 219 (66.7%) classrooms were identified as not using play-based curriculum.

The next question of the survey asked participants to identify approximately what percentage of their day was spent using play-based learning. The participants were given a range of choices to choose from including (1) 0-25%, (2) 26-50%, (3) 51-75%, and (4) 76-100% of their class time. The mean was 1.62, which identified that participants spent an average of 0-50% of their class time in play-based learning. Specifically, 53.3% of participants spent 0–25% of time in play-based learning with the next highest percentage of 33.9% being in the 26-50% of class time spent in the play-based learning range. The data implied that the majority of participants (87.5%) spent 50% or less of their time in play-based learning.

Questions 5 and 6 of the survey asked questions regarding the referral process used to help support students. Question 5 asked participants to identify if their classroom utilized some type of referral process for behavior and/or academics. Out of the 329 teachers that responded, 325 kindergarten classrooms identified as having a referral system while four classrooms identified as not having a process. Participants were then asked to identify specifically if they used (a) just academic, (b) just behavioral or (c) both academic and behavioral referrals. Two hundred seventy-five classrooms identified as using both academic and behavioral tiered support systems while 24 classrooms used just

academic and 30 used just behavioral tiered support systems. The data suggested that most classrooms, 83.6%, used both academic and behavioral referrals to support students.

Overall Survey Results

The researcher recorded the responses for both play-based and non-play-based participant classrooms. The independent variables or main effects for the data analysis were questions focused around academics (Questions 7, 10, and 13-17), questions focused around behavior (Questions 8, 11, and 18-22), and questions focusing on both academics and behavior (Questions 1-6, 9, and 12). Based on the survey results, 110 classroom teachers self-identified as using play-based learning while 219 self-identified as non-play-based classroom settings. An independent samples *t* test was used to determine a statistical significance for each question at the $p < .05$ level. Statistical significance in educational research has been recognized at the level of .05 or less (Pelham, 2013). When the *p*-value was 5% or lower, it was considered statistically significant. Analyses of significance, at the .05 level, are included in the following narrative.

Overall, the data showed only a significant difference for the number of behavioral referrals for survey questions asking respondents to identify repeat offenders and the number of total academic and behavioral referrals for those offenders. Utilizing the Levene's Test for Equality of Variances to evaluate the group differences and the *t* test for the Equality of Means, the number of behavioral referrals for repeat offenders was significantly different at the $p < .05$ level of significance ($p = .047$). In addition the number of total academic and behavioral referrals for repeat offenders (C, D, E) were

significantly different at the $p < .05$ level of significance (C: $p = .023$, D: $p = .049$, and E: $p = .050$). The p values for each independent samples *t* test are shown in Table 5.

Table 5

p-Value for Independent Samples t-Tests

Survey Question	*p*
5. Does your classroom use some type of referral process for behavior and/or academics?	.476
6. If you answered YES to Question 5, what referrals do you use?	.445
10. How many academic referrals (Tier II and/or Tier III) do your repeat offenders have?	
Repeat Offender A	.442
Repeat Offender B	.833
Repeat Offender C	.260
Repeat Offender D	.062
Repeat Offender E	.344
11. How many behavioral referrals (Tier II and/or Tier III) do your repeat offenders have?	
Repeat Offender A	.188
Repeat Offender B	.047*
Repeat Offender C	.147
Repeat Offender D	.285
Repeat Offender E	.158
12. How many total academic and behavior referrals (Tier II and/or Tier III) do your repeat offenders have?	
Repeat Offender A	.170
Repeat Offender B	.149
Repeat Offender C	.023*
Repeat Offender D	.049*
Repeat Offender E	.050*
16. How many instructional hours do you have in an average school day?	.204
17. How many hours are planned that students are interacting and exploring through play?	.000*

* $p < .05$.

It is important to note the academic referrals did not show a significantly different $p < .05$ level of significance. However, that one academic repeat offender (D) was close to the significance level. There was no level of significance for the referral process, types of referrals, and instructional hours. Furthermore, the independent samples *t* test did show a significantly different $p < .05$ level of significance for Question 17; however, it is important to note that the classrooms using play-based learning would have more time planned for interacting and exploring through play.

In addition the mean differentials and standard deviations between kindergarten classrooms that utilized play-based learning compared to kindergarten classroom that used non-play-based learning could provide insight. The mean will give the average of responses according to each question. The standard deviation shows the relation that set of scores has to the mean of the sample. Larger standard deviations show a wider variety of answers and smaller standard deviations indicate a narrower view. For the survey questions (5, 6, 10, 11, 12, 16, & 17) the mean differentials and standard deviations are noted in Table 6. It was important to note that the mean for academic, behavioral, and both academic and behavioral repeat offenders was higher for those classrooms that use non-play-based instruction as identified in Questions 10, 11, and 12. This demonstrated that more classrooms that used non-play-based learning were referring more students more frequently for academic, behavioral, and a combination of both academics and behavioral support. However, the mean for both play-based classrooms and non-play-based classrooms was similar for both Questions 5 and 6 revolving around having a referral process and the type of referral process used. In addition, out of the 329 participants, 276 (83%) identified as using both academic and behavioral referrals for

students. It could then be assumed that both play-based and non-play-based classrooms had similar referral processes for students. This test established the commonality of Missouri kindergarten teachers' access to both academic and behavioral referrals to support students.

Table 6

t-test Group Statistics: Mean and Standard Deviations for Survey Questions

Survey Question	Play-Based Learning	Mean	Standard Deviation
5. Does your classroom use some type of referral process for behavior and/or academics?	Yes	1.01	.095
	No	1.01	.134
6. If you answered YES to Question 5, what referrals do you use?	Yes	2.78	.585
	No	2.75	.463
10. How many academic referrals (Tier II and/or Tier III) do your repeat offenders have?			
Repeat Offender A	Yes	1.79	.464
	No	1.84	.621
Repeat Offender B	Yes	1.81	.547
	No	1.83	.656
Repeat Offender C	Yes	1.74	.491
	No	1.88	.767
Repeat Offender D	Yes	1.59	.499
	No	1.90	.831
Repeat Offender E	Yes	1.62	.494
	No	1.76	.589
11. How many behavioral referrals (Tier II and/or Tier III) do your repeat offenders have?			
Repeat Offender A	Yes	2.22	1.12
	No	2.42	1.15
Repeat Offender B	Yes	1.96	.898
	No	2.27	1.01
Repeat Offender C	Yes	1.71	.712
	No	2.00	.938
Repeat Offender D	Yes	1.56	.583
	No	1.77	.881
Repeat Offender E	Yes	1.58	.606
	No	1.97	1.11
12. How many total academic and behavior referrals (Tier II and/or Tier III) do your repeat offenders have?			
Repeat Offender A	Yes	2.13	.920
	No	2.33	1.03
Repeat Offender B	Yes	2.00	.834
	No	2.25	1.00
Repeat Offender C	Yes	1.81	.592
	No	2.32	1.18
Repeat Offender D	Yes	1.67	.577
	No	2.16	1.08
Repeat Offender E	Yes	1.59	.618
	No	2.18	1.18
16. How many instructional hours do you have in an average school day?	Yes	6.21	1.87
	No	4.45	2.49
17. How many hours are planned during which students are interacting and exploring through play?	Yes	3.24	7.96
	No	1.08	1.37

The following sections will focus on Research Questions 1 and 2, which examined academics and behavior separately. The sections will provide data analysis for the notable differences that existed between play-based and non-play-based classrooms as well as look at the additional data gathered for each scale. Each section will begin by addressing the overall data for the given survey type then providing analysis for each research question.

Play-Based Classrooms and Non-Play-Based Classrooms

To answer Research Question 1, the researcher used an independent samples *t* test to determine if statistical significance existed between academics in classrooms that used play-based learning and those that did not. Specifically, the researcher examined Questions 7, 10, and 17 as they were focused around academics. In order to answer Research Question 2, the researcher again used an independent samples *t* test to determine if statistical significance existed between behaviors in classrooms that used play-based learning and those that did not. In addition, the researcher used an independent samples *t* test to examine Questions 5, 6, and 12 for both research questions because they focused around both academics and behavior. To explore the topics further, participants were asked questions identifying specific information regarding either behavior or academics.

The researcher addressed Research Question 1 by examining Questions 7, 10, and 13-17 representing the academic scale. Based on the 329 survey results, 110 participants identified as using play-based learning in their classrooms and 219 classrooms identified as not using play-based learning. Survey Question 7 identified that only 22 of the 329 participants used just academic referrals. Participants were also asked to identify how

many academic referrals repeat offenders they had. Non-play-based classrooms noted that they had repeat offenders totaling 1-5 academic referrals at 167 out of 219 (76%), 120/219 (54.7%), 84/219 (38.3%), 51/219 (23%), and 38/219 (17%). Play-based classrooms noted they had repeat offenders totaling 89/110 (81%), 72/110 (65.4%), 46/110 (41%), 32/110 (29.1%), and 24/110 (21.1%). This indicated that both play-based and non-play-based classrooms referred repeat offenders within 5% of each other, with non-play-based classrooms at 76% and play-based at 81%.

The researcher also wanted to identify if kindergarten students were being referred to academic tiers because of lack of preschool experience in addition to the increased academic standards through Questions 13 and 14 on the survey. Out of the 329 participants 181 kindergarten teachers noted that they had a range of 1-12 students that had been referred for academics. Furthermore, 234 of the 329 kindergarten teachers identified as believing that increased academic standards have impacted the number of academic referrals. It is also important to note that the total number of instructional hours each classroom had in an average day ranged from 1-8, with the mean being 5.01 hours of instructional time in a day. Participants were asked to identify how many hours were planned during which students were interacting and exploring through play. The mean for the number of hours was 1.78 with the range going from 0-7 hours in a day where play was planned. Note that it was important not only to assess the questions addressing academic only, but to also analyze the data from the scale addressing both academics and behavior. Looking specifically at Question 6, the researcher was able to identify that 83.6% of participants answered that they used both academic and behavioral referrals.

Data from Question 12 also suggested that more non-play-based classrooms had more repeat offenders referred as compared to play-based classrooms.

Knowing that 83.6% of classrooms used a combination of academic and behavioral referrals, it was important to not only analyze the academics only scale, but to also utilize the academic and behavioral referrals. The researcher examined the data from the independent samples *t* test to identify the level of significance between the number of referrals for repeat offenders in play-based classrooms and the number of referrals for repeat offenders in non-play-based classrooms. With a significance level set at $p < .05$, the results indicated a *p*-value of < .023, < .049, and < .050 when comparing the number of combined academic/behavioral referral totals for three repeat offenders in both play-based and non-play-based classrooms. With the 329 reported *p*-value below the threshold of $p < .05$, it could be determined that significance existed and more academic/ behavioral referrals were used for non-play-based classrooms as compared to play-based classrooms, thus the null hypothesis (H_{01}) was rejected. From these results it could be determined that play-based curriculum did have a statistically significant difference on kindergarten students' academics as measured by their academic/behavioral referrals.

For Research Question 2, the researcher looked specifically at Survey Questions 8, 11, and 18-22. Participants answered that 32 of the 329 participants used just behavioral referrals. As with academics, behavior referral only participants were asked to identify how many behavioral referrals they had submitted for repeat offenders. Non-play-based classrooms noting that they had repeat offender totals of 1-5 behavior referrals were at 168-219 (76%), 117/219 (53.7%), 76/219 (34.3%), 48/219 (22.1%), and 36/219 (16%). Play-based classrooms noted repeat offender totals at 82/110 (75%), 53/110

(48.1%), 28/110 (25.1%), 25/110 (22.7%), and 19/110 (17.2%). The data identified that non-play-based classrooms referred more repeat offenders for behavior as compared to play-based classrooms.

Respondents were asked to identify if they believed that increased academic standards had impacted the number of behavioral referrals. Kindergarten teachers noted that 70.1% of them believed that increased standards had impacted behavior, while only 29.9% did not agree. Participants also identified that the most common time for referrals was in the afternoon with 72.6%, followed by the morning at 20.3%, and lastly lunch at 7.1%. In addition, for the purpose of addressing Research Question 2, the researcher reviewed the data regarding both academic and behavior referrals, which identified that more students in non-play-based classrooms were referred more frequently as compared to play-based classrooms.

In addition to this information, an independent samples *t* test was conducted to identify the level of significance between the number of referrals for repeat offenders in play-based classrooms and the number of referrals for repeat offenders in non-play-based classrooms. With a significance level set at $p < .05$, the results indicated a *p*-value of < .047, < .023, < .049, and < .050 when comparing the number of behavioral only and academic and behavioral referrals for repeat offenders in both play-based and non-play-based classrooms respectively. With the 329 reported *p*-values below the threshold of $p < .05$, it could be determined that significance existed and more academic/ behavioral referrals were used for non-play-based classrooms as compared to play-based classrooms, thus the null hypothesis (H_{02}) was rejected. From these results it could be determined that play-based curriculum did have a statistically significant difference on kindergarten

students' behavior as measured by their behavioral only and academic/behavioral referrals.

Open-Ended Questions

The survey also included open-ended questions. Specifically, Questions 15, 18, 21, and 22 asked participants to list or identify information. The intention of the questions was to gather any thoughts or perceptions respondents had regarding behavior and/ or academics. A brief qualitative analysis was conducted by reading respondents' comments to determine any themes or areas warranting further exploration. Qualitative analysis was used to find categorical data and was organized by common themes. Question 15 asked respondents to identify the types of academic behaviors that they referred. Several themes emerged from the responses. Common themes that appeared when analyzing the participants' data included letter identification, retention of information, identifying letter sounds, phonics, fine motor skills, overall readiness skills, number identification and social and emotional maturity. The most dominant responses that emerged were overall readiness skills and retention of basic academic and social skills. The idea of overall readiness skills reiterated that students come into the kindergarten setting not prepared to learn basic skills and perform the tasks and activities that are being asked of these students. Given that students are unprepared with the skills to perform, student retention would also be lacking because they cannot retain information if they were not ready to learn. There was a direct connection between current expectations and standards of kindergarten students and their readiness and ability to perform what had been asked.

The researcher also analyzed common themes from Survey Question 18. Question 18 asked participants to identify the types of behaviors they had been referring. An

emerging theme amongst the respondents' answers, especially the non-play-based learning, included physical aggression, specifically hands-on and lack of body control. Given this theme, the researcher concluded that students are struggling to maintain body control due to the lack of opportunity to use their hands and body in a purposeful way. In addition, another emerging theme was disruptive and inappropriate behaviors including defiance and interruptions. This theme continued to reiterate that students' behaviors may be exhibited because of the lack of opportunities to use their bodies and hands in a productive way. Furthermore, this theme continued to support the use of play-based learning in the classroom.

The researcher then examined Question 21 of the survey to identify common themes or ideas. The question asked the participants to list the activities taking place when the most problem behaviors were exhibited. An emerging theme was during seat work or instruction time in addition to independent working time. Given this theme, the researcher determined that activities or instruction requiring students to sit for long periods of time or work quietly gave more opportunities for kindergarten students to become off task. These actions could often develop into problem behaviors when students were not engaged in the activity. Another emerging theme that was mentioned included transition periods throughout the day. Specific transitions included walking in the halls, waiting in the drink or restroom line, or transitioning within the classroom. The researcher credited this theme to students being asked to transition quietly while being allowed to move, which is often a struggle for many children this age. Additionally, if students have not been allowed structured playtime and movement within the classroom, they may associate this as an appropriate time to socialize. Lastly, the researcher

analyzed the common themes from Question 22, which asked participants to list the disciplinary steps or interventions that were taken prior to the behavior referral. Common steps listed included redirection, discussion, parent notification, and consequences. These steps indicated to the researcher that students were given opportunities to improve behaviors but either did not have the skills to perform what was being asked or the activity was not engaging enough to keep the students' attention.

Summary

This chapter provided the findings of the study. The survey results of the 329 respondents were quantitatively analyzed to investigate the two research questions. Data analysis did result in statistically significant differences in the responses of participants that used play-based curriculum and those who used non-play-based curriculum. Descriptive and inferential statistics were used to give insight into the survey results. The researcher further analyzed six demographic questions to determine where statistical significances occurred. Independent samples *t* tests were utilized to determine if the null hypotheses were accepted or rejected. The open-ended survey questions more readily identified common themes among the respondents in regard to academics and behavior along with possible indicators. The null hypothesis was rejected for Research Question 1 and 2 due to statistically significant differences found in the data analysis. Chapter Five will provide a summary and conclusions of the research study. In addition, Chapter Five gives an overview of the recommendations for future research in the area of early childhood education and play-based learning.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

Introduction

The purpose of this study was to identify the differences between Missouri kindergarten classrooms who used play-based learning and those who did not on students' academics and behaviors. Early childhood educators, specifically kindergarten teachers, make decisions daily that may affect the success of kindergarten students now and in the future. The neuroscience, developmental psychology, and educational fields of study detailed an evidence-based report identifying the foundation for lifelong learning, behavior, and health as set by early brain development (Mustard, 2006). Through this study it emerged that a child's brain development is connected to early years education and experience, specifically identifying critical periods are over or waning by the time a child is 6 years old (Dewey, 1997). Understanding this importance is crucial in providing quality, developmentally appropriate instructional opportunities for students in kindergarten classrooms.

Instructional opportunities and curriculum that is often used incorporates play, which allows students the opportunity to learn and grow in a developmentally appropriate way. Child development research exists that demonstrates not only play's importance, but also identifies the benefits play brings to growth, understanding, and development in people of all ages (Riley, 2012). Even after understanding the numerous benefits derived from play, time for free play has been significantly reduced for some children (Ginsberg, 2007). The NCLB Act of 2001 (2002) and other regulations reveal our country's recent push for literacy and educational accountability. Opportunities for play in kindergarten classrooms Have been decreased in addition to having fewer physical outlets in order to

increase academic time as a response to the NCLB Act of 2001 (Ginsburg, 2007). With the absence of play in kindergarten curriculum, students can be deprived of developmentally appropriate learning, resulting in more academic and behavioral struggles. This study helped to identify whether the decreased amount of playtime resulted in a higher number of academic and behavioral referrals in kindergarten classrooms in addition to identifying specific themes that existed in these classrooms.

Summary of Methods

This study utilized a quantitative descriptive approach to collect and analyze data. To gather data, the researcher concentrated on all Missouri kindergarten teachers in public schools. A critical component of this study was the development of the survey with support and guidance from the researcher's advisor and research committee. Upon receiving approval from the Research Review Board (RRB) in December of 2017, the researcher electronically sent a Question Pro survey to an expert group prior to the pilot implementation. The survey was tested for validity and reliability with the purpose of accessible availability for future research. The process started with an expert pilot that utilized Rovinelli and Hambleton's (1977) index of item-objective congruency. The expert group consisted of six early childhood educators and all six had completed the survey in December 2017. The researcher then had conversations electronically or in person with the participants to further analyze responses and refine intended responses on the item-objective congruency survey. After the first expert validity, the researcher met with the advisor and revised Question 3, 10, 11, 12, and 15 in an attempt to clarify and increase their values. The researcher then sent the revised survey to the expert panel to preview a second time. At that point, all questions remained in the survey for the pilot.

After the expert rating revisions were completed, the survey instrument was sent electronically to a sample population before actual administration in order to determine reliability and validity of the instrument. The pilot process then continued in February of 2018 when the researcher submitted the pilot to public schools in Arkansas. The pilot was given to Arkansas public school full-day kindergarten teachers in order to have a similar population and not eliminate participants from the actual study population. The survey was sent as a pilot to 50-plus kindergarten teachers in Arkansas. The pilot survey results were then analyzed with the researcher's advisors to determine if the questions were clear and understood. After the initial pilot, the researcher completed a follow-up with the pilot group, clarifying that questions' intents were being communicated and wording was clear. After the pilot process, the researcher was able to determine that the format and delivery of the survey tool were designed to receive the best possible data back. The initial testing confirmed that the survey instrument held strong reliability and validity.

The researcher obtained a master e-mail list of Missouri public school administrators from the Missouri Department of Elementary and Secondary Education. Administrators were then asked to forward the survey to their kindergarten teachers. A window of 4 weeks was allowed for participants to complete the survey. Identified schools with incomplete questionnaire data were sent a follow-up e-mail 2 weeks after the initial e-mail as a reminder to those who had yet to complete the survey. A final follow up e-mail was sent after the third week to schools that had not yet completed the survey. School districts that still did not complete the online survey and had agreed to participate were then contacted via telephone to collect the survey information. If subjects declined to participate, or did not take any action by the end of the third week,

no further communication was pursued. The data collected electronically through Question Pro were uploaded into the SPSS program for analysis. The researcher conducted an independent samples *t* test analysis to determine significance and accept or reject the null hypotheses.

Summary of Findings

This study examined if there were differences between Missouri kindergarten classrooms who used play-based learning and those who did not on students' academics and behaviors. The process of defining play-based learning, tiered support systems, and referrals built the foundation for the researcher-designed survey. Using the two research questions, research-based information from the literature review, and the intent of the survey, definitions were delineated to create a common understanding of the meaning of the survey. Play-based learning was defined as children manipulating objects, acting out roles, experimenting with materials, and exploring with song, dance, games, toys, and the arts at least 50% of the day (Karia, 2014). The researcher defined a behavior referral as a form teachers fill out and submit to the office or behavior intervention team with information about the specific incident and events leading up to the incident as well as steps taken by the teacher (Matalone, n.d.). Finally, academic referrals were defined as both Tier II and Tier III referrals including interventions beyond regular classroom strategies involving students predicted to be at risk through a screening process or at risk of developing more severe problems prior to Special Education referrals (Mellard et al., 2011). In addition scales were formally designed to address the research question and included academics, behavior, and a combined behavior and academics. Once each scale was designed, multiple questions asking similar information were created to help answer

the research questions, and then they were categorized into each scale. The goal of the researcher was to gather as much information to help identify if there were differences between Missouri kindergarten classrooms who used play-based learning and those who did not on students' academics and behavior through examining their behavioral and academic referrals.

Upon review of the final survey results, the researcher was able to draw general conclusions about whether differences existed between play-based and non-play-based classrooms by examining academic and behavioral referrals. Differences did exist between Missouri kindergarten classrooms that used play-based and non-play-based learning. When digging deeper, play-based classrooms referred a lower percentage of students compared to non-play-based classrooms. Even though a statistical significance occurred between repeat offender referrals in behavior only systems and the combined behavior/academic referral systems, the academic only referral systems did not have a statistical significance, making up only 7% of the total respondent population. This indicated that the majority of the respondents used both academic and behavioral referrals, allowing the researcher to use the combined scale data when addressing both null hypotheses. In addition to analyzing the independent samples *t* test, the researcher examined descriptive data along with identifying emerging themes that appeared through open-ended questions.

Conclusions

The purpose of this study was to determine if there were differences between Missouri kindergarten classrooms who used play-based learning and those who did not on students' academic achievement and behavior through examining their behavioral and

academic referrals. Public school kindergarten teachers in Missouri who agreed to participate were asked to answer demographic questions along with questions pertaining to academic referrals and behavioral referrals for use within this study through a survey (see Appendix B) electronically distributed. From this study, the researcher desired to illustrate the importance of play in early childhood classrooms, specifically kindergarten, and how the lack of play affects students' behavior and academic achievement. To guide this study, research questions were developed and an analysis of these questions, in light of the statistical findings, is provided below.

Research Question 1 Conclusions

The first research question was as follows: What is the difference in the academic achievement of kindergarteners in classrooms that use play-based learning and those who do not as measured by examining their academic referrals? To ascertain if a difference existed, kindergarten classrooms were divided into two groups: play-based and non-play-based (see Appendix B). Once divided, an independent samples *t* test was run to determine if a statistical significance could be identified. Results from this test indicated that there was not a statistical significance ($p < .05$) found between play-based and non-play-based classrooms and the number of academic only frequent offender referrals. However; it was established that 83% of respondents used both academic and behavior referrals, so it was important to include that data in the analysis when addressing Research Question 1. When examining all the data including the combined referral systems, the researcher found the independent samples *t* tests indicated that there was a statistical significance ($p < .05$) found between play-based and non-play-based classrooms and the number of behavior and academic frequent offender referrals. In

addition the mean differentials between kindergarten classrooms that utilized play-based learning compared to kindergarten classroom that used non-play-based learning provided insight. The mean gave the average of responses according to each question. For the survey questions (5, 6, 10, 11, 12, 16, & 17) the mean differentials were calculated for the academic only and the combined academic/behavioral scales. It was important to note that the mean for academic, behavioral, and both academic and behavioral repeat offenders was higher for those classrooms that used non-play-based instruction as identified in Questions 10, 11, and 12. The mean for both play-based classrooms and non-play-based classrooms was similar for Questions 5 and 6 that revolved around having a referral process and what type of referral process was used. It is important to note that even though the means were the same the majority of participants (83.7%) identified as using a combination of academic and behavioral referrals. This demonstrated that classrooms using non-play-based learning were referring a higher number of students more frequently for academic, behavioral, and a combination of both academics and behavioral support.

In order to dive deeper into examining the differences between play-based and non-play-based classrooms by comparing their academic referrals, the researcher wanted to examine whether kindergarten students were being referred to academic tiers because of lack of preschool experience in addition to the increased academic standards through additional questions from the survey. Out of the 329 participants 181 kindergarten teachers noted that they had a range of 1-12 students that had been referred for academics. Furthermore, 234 of the 329 kindergarten teachers identified as believing that increased academic standards had impacted the number of academic referrals. It is also

important to note that the total number of instructional hours each classroom had in an average day ranged from 1-8, with the mean being 5.01 hours of instructional time in a day and the majority of participants (87.5%) spending 50% or less of their time in play-based learning. Participants were asked to identify how many hours were planned during which students were interacting and exploring through play. The mean for the number of hours was 1.78 with the range going from 0-7 hours in a day where play was planned.

The researcher also asked respondents to identify the types of academic behaviors that they referred. Several themes emerged including letter identification, retention of information, identifying letter sounds, phonics, fine motor skills, overall readiness skills, number identification, and social and emotional maturity. The most dominant responses that emerged were overall readiness skills and retention of basic academic and social skills. The idea of overall readiness skills reiterated that students come into the kindergarten setting not prepared to learn the basic skills and perform the tasks that are being asked of these students. Based on these common themes that emerged from the open-ended analysis, the data derived from the means comparisons and the data from the independent samples *t* tests indicating that there was a statistical significance ($p < .05$) confirmed that play-based curriculum had a statistically significant difference on kindergarten students' academic achievement as measured by their academic referrals. This result allowed the researcher to reject the associated null hypothesis (H_{01}).

Research Question 2 Conclusions

The second research question was as follows: What is the difference in the behavior of kindergarteners in classrooms that use play-based learning and those who do not as measured by examining their behavioral referrals? To identify if differences

existed, the researcher looked specifically at Survey Questions 8, 11, and 18-22. In order to establish if significant differences existed, an independent samples *t* test was run to determine if a statistical significance could be identified between play-based and non-play-based classrooms. Specifically, an independent samples *t* test was conducted to identify the level of significance between the number of referrals for repeat offenders in play-based classrooms and the number of referrals for repeat offenders in non-play-based classrooms. With a significance level set at $p < .05$, the results indicated a *p*-value of < .047, < .023, < .049, and < .050 when comparing the associated number of behavioral only and academic and behavioral referrals for repeat offenders in both play-based and non-play-based classrooms. With the reported *p*-value below the threshold of $p < .05$, it could be determined that significant difference existed and more behavioral and academic/ behavioral referrals were used for non-play-based classrooms as compared to play-based classrooms. In addition to this information, participants answered that 32 of the 329 participants used just behavioral referrals. Just like with academics, behavior referral only participants were asked to identify how many behavioral referrals they had submitted for repeat offenders. The data identified that non-play-based classrooms referred repeat offenders for behavior more frequently as compared to play-based classrooms.

In order to expand on the differences, respondents were asked to identify if they believed that increased academic standards had impacted the number of behavioral referrals. Kindergarten teachers noted that 70.1% of them believed that increased standards had impacted behavior, while only 29.9% disagreed. Participants also identified that the most frequented time for referrals was the afternoon with 72.6%, followed by the

morning at 20.3%, and lastly lunch at 7.1%. This information allows the researcher to argue that behaviors are being exhibited more frequently later in the day after students have spent time learning in a setting where the use of play is not fostered.

In order to further examine, the researcher also analyzed common themes from Survey Question 18 that asked participants to identify the types of behaviors they had been referring. An emerging theme amongst the respondents' answers, especially the non-play-based learning, included physical aggression, specifically hands-on and lack of body control. Given this theme, the researcher deduced that students were struggling to maintain body control due to the lack of opportunity to use their hands and body in a purposeful way. Students who cannot conform or adjust to such conditions surrounding them at school are less likely to be successful because few alternatives exist to learning the appropriate ways of interacting with others. In addition, another emerging theme was disruptive and inappropriate behaviors including defiance and interruptions. This theme continued to reiterate that students' behaviors may be exhibited because of the lack of opportunities to use their bodies and hands in a productive way. Furthermore, this theme continued to support the use of play-based learning in the classroom.

The researcher then examined Question 21's common themes, which asked the participants to list the activities that occurred when the most problem behaviors were exhibited. An emerging theme was during seat work or instruction time in addition to independent working time. Given this theme, the researcher reasoned that activities or instruction that required students to sit for long periods of time or work quietly gave more opportunities for kindergarten students to become off task. These actions could then become problem behaviors when students were not engaging in the activity. Another

emerging theme included transition periods throughout the day. Specific transitions included walking in the halls, waiting in the drink or restroom line, or transitioning within the classroom. The researcher credits this theme to students being asked to transition quietly while being allowed to move, which is often a struggle for many children this age. Lastly, the researcher analyzed the common themes from Question 22, which asked participants to list the disciplinary steps or interventions that were taken prior to the behavior referral. Common steps listed included redirection, discussion, parent notification, and consequences. These steps indicated to the researcher that students were given opportunities to improve behaviors but either did not have the skills to perform what was being asked or the activity was not engaging enough to keep the students' attention. Based on these common themes that emerged from the open-ended analysis, the data derived from the means comparisons and the data from the independent samples *t* tests indicating that there was a statistical significance ($p < .05$), confirmation was noted that play-based curriculum had a statistically significant difference on kindergarten students' behavior as measured by their behavioral referrals. This result allowed the researcher to reject the associated null hypothesis (H_{02}).

Professional Implications

The early years learning framework (EYLF) described play-based learning as "a context for learning through which children organize and make sense of their social worlds, as they actively engage with people, objects and representations" (Department of Education and Training - Document library, Australian Government, 2016, p. 46). In addition, Riek (2014), elaborated that play pedagogy, teaching, and learning through hands-on inquiry, which is self-directed and guided by teachers, provides experiences

that hold great potential for learning that extends children's understanding and dispositions. Through data derived from the survey and knowing how play provides meaningful learning opportunities for students to extend their learning understandings and dispositions, it can be assumed that the lack of play opportunities for students in this study hindered students from learning to their potential in the most developmentally appropriate method. With students not having access to learning through a more hands-on, inquiry-based approach, more students were being referred to receive support through academic referrals.

Current studies have established links between the importance of play-based opportunities for children and the development of self-regulation skills as important indicators of school readiness (Bordova & Leong, 2003). Given that students are not coming into kindergarten prepared with the skills to perform and play-based opportunities are limited for students, student retention would also be lacking because they cannot retain information if they were not ready to learn. There was a direct connection between current expectations and standards of kindergarten students and their readiness and ability to perform what had been asked. It is important to note that classroom instruction that focuses primarily on standards and assessment accountability actually takes away from rich opportunities for learning (Medellin, 2015). As classroom practices deviate from core values embedded within best practice, new forms of instruction emerge and children are not receiving the best instructional opportunities possible.

Conformity in kindergarten classrooms has occurred as a result of reform efforts like NCLB Act of 2001 (2002). Early childhood education students' academic

performance expectations have been increased for students at a younger age (NCLB Act of 2001, 2002), encouraging the push for teachers to improve standardized scores. This has in turn pushed the developmental needs of students aside and students are being required to learn in environments emphasizing academic skills and eliminating play-based learning. It is important for educators striving to meet the needs of each student to remember that according to research, play encourages appropriate social and academic support, thus eliminating problem behaviors (Ginsburg, 2007).

Early years of education are critical for students' successful development, not just because they are the foundational years, but also because preschool, kindergarten, and first-grade classrooms are where students learn how to negotiate the school environment, especially socially (Menzies & Lane, 2011). Through play opportunities, children are engaged in situations that allow them to participate in give-and-take activities that permit them to learn to regulate emotionally and develop social competence (Gagnon & Nagle, 2004). In addition, establishing effective and appropriate peer relationships has implications for children's social and cognitive development and directly affects their impulse and behaviors. Through play, children can learn essential skills like taking turns, exercising self-control, and developing perspective-talking, which can assist with the mastery of academic content (Ginsberg, 2007). Children enjoy play and are motivated to engage in it. Play proceeds through a regular developmental sequence during childhood, which makes it even more crucial for schools to provide the opportunity for this sequential growth to take place (Gagnon & Nagle, 2004).

In order to provide a quality education to all, classrooms are set up autonomously and certain expectations are set so that each teacher can effectively teach and manage

kindergarten students. Jackson (1990) described the overpowering effect the classroom environment has on students' experience in education. He noted that students have a variety of feelings and emotions based on conditions surrounding them at school (Jackson, 1990). With this in mind, kindergarten teachers need to establish a well maintained classroom environment that fosters appropriate instruction encouraging hands-on activities, movement, and social interaction that are appropriate for optimal student growth behaviorally and socially.

Knowing and understanding the impact of disruptive behaviors in early childhood students and preventative measures, it is important for teachers to implement early interventions and minimize the influence of these behaviors. In order to decrease the potential development of school-related problems, incorporating prevention processes for controlling these problem behaviors was found to be more useful in general behavior management approaches (Algozzine, Daunic, & Smith, 2010). Developing a well-thought-out plan of prevention, including instructional activities, improves the efficiency of how the school, classroom, and behavior support systems operate. As teachers implement new instructional approaches to improve achievement, the behavioral needs of students are often neglected, leading to more students exhibiting behavioral problems (Benedict et al., 2007). In order to manage challenging student behaviors, early childhood educators need comprehensive evidence-based instruction and interventions (Caldarella et al., 2014). In the educational setting, teachers need to create an environment that incorporates guided play using learning activities to promote achievement while still allowing children freedom to engage in play-based or intrinsic motivation (Bordova et al., 2013). No matter the type of play that is incorporated (free or

guided), incorporating play in the classroom fosters improvements academically, emotionally, and socially.

Recommendations for Future Research

Given the knowledge of information gathered in the literature review and the analysis of the results of this survey, the following recommendations are made regarding instructional practices in early childhood classrooms, specifically kindergarten. Future researchers seeking to identify not only developmentally appropriate practices for kindergarten students, but also looking to identify differences in the number of behavior and academic referrals in classrooms using play-based instruction and non-play-based classrooms, could use this survey as a reliable and valid tool. It is suggested that further research be expanded to encompass a larger sample size of surveyed kindergarten teachers. The researcher used a large enough sample size to address the primary research questions; however, more specific differences could not be fully answered due to a limited sample size. Expanding the radius of the geographic scope of the study would be necessary in order to explore the impact demographic factors have on play curriculum available to kindergarten teachers and students' academic struggles and behaviors. Additionally, the researcher recommends expanding the concept of play-based learning to additional grade levels, especially preschool and first grade. Longevity of this type of learning curriculum and the impact it has on the overall academic, social, emotional, and behavioral development of students at all early childhood levels and lower elementary levels could provide insight into the impact a developmentally appropriate curriculum can have on the success of students down the road.

This study focused just on the differences in play-based and non-play-based Missouri kindergarten classrooms by examining their academic and behavioral referrals. One recommendation for future research would be to determine what particular play-based curriculums or play-based instructional methods used by early childhood educators could address decreased behavior and academic referrals, but still increase student achievement. This study, along with future studies on play-based curriculum benefits, would lend themselves to examining the curriculum taught at all early childhood and elementary settings. The researcher recommends that even though play-based curriculum may not be appropriate for all elementary-aged students, movement, music, and kinesthetic and audio/visual activities help all students stay engaged and learn more effectively (Rushton, Juola-Rushton, & Larkin, 2010; Sousa, 2011). In addition, researchers should examine the current practices of school districts to provide professional development on incorporating developmentally appropriate instruction to kindergarten students. Further research into the professional development provided and curriculum available to kindergarten teachers would give more insight into what is currently taking place in early childhood classrooms. The researcher also suggests that perceptions of early childhood teachers and elementary administrators within this process can provide for additional research material and insight into the effectiveness of implementing play-based curriculum. Through this study the specific referral process and the types of support systems that were in place in each school setting was unknown. Knowing this, future researchers could look at particular strategies or supports that have been shown as effective in addressing students who have referrals including academics

and behavior as well as preventative actions that could be taken prior to the referral process.

Lastly, the area of this study not fully addressed was the understanding of the impact play-based learning or non-play-based learning had on the demographic elements that potentially cause struggles and additional stressors to kindergarten teachers trying to meet demands and kindergarten students' learning process. As stated, an expansion of the geographic scope of this study would need to take place to amass a useable sample size. Demographic categorizations such as poverty, minority rates, gender and class sizes are examples of factors that can be used to delve into the research and begin to identify key factors and also provide potential solutions for these barriers to kindergarten students' achievement and success. In addition, the survey was administered in the spring time. The researcher recommends future researcher to administer the survey twice in a school year which could include a pre-test or post-test or administer the survey in the fall and spring. This expanded study could give insight as to what differences exist throughout the school year and if the differences increase or decrease as the year progressed. In general, the evidence gathered with this survey tool highlighted the importance of play-based learning opportunities in kindergarten classrooms. Missouri kindergarten classrooms and early childhood educators in general continue to have the pressures of mandates requiring students to learn more at a younger age as well as demands for increased performance. Educators also know that it is not only important to provide students with developmentally appropriate learning opportunities, but it is also necessary to provide for student optimal learning and achievement. Finding a way to balance demands and necessary components should be the ultimate goal.

Summary

Currently, Missouri kindergarten classrooms serve as a building block for a student's first learning experiences and set the foundation for future learning and growth. Whether documented by multiple researchers and authors decades ago or stated in current literature, play-based learning opportunities are needed in order to maintain an educational environment that is both academically and behaviorally productive. This study identified kindergarten classrooms within the states of Missouri that used either play-based or non-play-based instruction and further identified the number of students that were referred for behavior and/or academic support. As a result, it was found that a statistical significance did exist between kindergarten classrooms that used play-based learning and those that did not in the areas of behavior/academic referrals and frequent offenders.

Furthermore, the study elaborated on the beliefs that students are being required to perform at a higher level and faster rate than what is developmentally appropriate, causing behaviors to occur during learning opportunities. As societal pressures continue to shape the instructional opportunities provided, the need for kindergarten teachers to provide developmentally appropriate learning opportunities does not just disappear. This study may provide value for future educational leaders and researchers to continue the conversation around transforming the early childhood classroom setting into one that is developmentally appropriate and ultimately helps all students succeed. The more training, professional development, and strategies around play-based learning with which educators are equipped, the less likely students will be referred to receive academic and behavioral support. Educators coming together to provide the best learning environment,

one that supports and encourages the young minds of our future, would be a step in the direction we have always known is right. According to Doris Lessing (1993), “That is what learning is. You suddenly understand something you've understood all your life, but in a new way (n.p).

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APPENDIX A

PRINCIPAL E-MAIL LETTER

Date

Dear Principal

I am a Doctoral Student attending Southwest Baptist University in Bolivar, Missouri, and I am participating in the Doctor of Education in Educational Leadership program. As a final part of the program, I am completing my doctoral dissertation on the differences in kindergarten academic achievement and behavior in play-based and non-play-based classrooms. The study will focus on Missouri kindergarten students' academic achievement and behavior in both play-based and non-play-based classrooms. Results will help educators across the country determine if play-based learning should be incorporated into early childhood classrooms in order to help students mature and learn. I am writing to ask if you would take less than seven minutes to assist me I this endeavor by forwarding this e-mail.

In order to gain information to assist in this study, please forward this survey to your kindergarten teachers. The survey will only take approximately 7 minutes to complete. The survey is anonymous and no identifying information is gathered. The survey contains 22 questions and is separated into three categories. The categories include demographic information, referral information, and short answer. The survey is attached for your review.

Thank you in advance for your help with this study. Please feel free to contact me if you have further questions. I will be happy to provide you with the results of the survey if requested.

Ashley Bough

Doctoral Student at Southwest Baptist University, Bolivar, Missouri

APPENDIX B

SURVEY INSTRUMENT

Directions: Please respond to the following questions about play-based curriculum in your district. Please write or circle the appropriate answer based on your experiences. For the purpose of this study, please use the following definitions when responding to the questions:

Play-Based Learning. *Children manipulate objects, act out roles, experiment with materials, and explore with song, dance, games, toys, and the arts at least 50% of the day (Karia, 2014).*

Behavior Referrals. *A behavior referral is a form teachers fill out and submit to the office or behavior intervention team with information about the specific incident and events leading up to the incident as well as steps taken by the teacher. (Matalone, n.d.).*

Academic Referrals. *Academic referrals are both Tier II and Tier III referrals including interventions beyond regular classroom strategies involving students predicted to be at risk through a screening process or are at risk of developing more severe problems prior to Special Education referrals (Mellard, Stern, & Woods, 2011).*

1. Are you a full day kindergarten program?

    a. Yes

    b. No

** If you answered yes to question 1, please continue.*

2. How many students do you have in your kindergarten classroom? _____

3. Does your kindergarten classroom use play-based learning as defined as: *Children manipulate objects, act out roles, experiment with materials, and explore with song, dance, games, toys, and the arts at least 50% of the day (Karia, 2014)*?

    a. Yes

    b. No

4. Approximately what percent of your day is spent in play-based learning?

a. 0-25

b. 26-50

c. 51-75

d. 76-100

5. Does your classroom use some type of referral process for behavior and/or academics?

a. Yes

b. No

6. If you answered YES to Question 5, what referrals do you use?

a. just academic

b. just behavioral

c. both a & b

7. If you answered "just academic" to Question 6, how many students have you referred this year as defined above in Tiers II and III?

Total number of academic referrals: _____

8. If you answered "just behavioral" to Question 6, how many students have you referred this year as defined above in Tiers II and III?

Total number of behavior referrals: _____

9. If you answered "both academic and behavioral" to Question 6, how many students have you referred that have had both academic and behavior referrals as defined above in Tiers II and III?

Total number of individual students who have been referred in both areas (academic and behavior)_____

10. How many academic referrals (Tier II and/or Tier III) do your repeat offenders have? (Circle one for each repeat offender)

Student A	0	1-5	6-10	11-15	16 or more
Student B	0	1-5	6-10	11-15	16 or more
Student C	0	1-5	6-10	11-15	16 or more
Student D	0	1-5	6-10	11-15	16 or more
Student E	0	1-5	6-10	11-15	16 or more

11. How many behavioral referrals (Tier II and/or Tier III) do your repeat offenders have? (Circle one for each repeat offender)

Student A	0	1-5	6-10	11-15	16 or more
Student B	0	1-5	6-10	11-15	16 or more
Student C	0	1-5	6-10	11-15	16 or more
Student D	0	1-5	6-10	11-15	16 or more
Student E	0	1-5	6-10	11-15	16 or more

12. How many total academic and behavior referrals (Tier II and/or Tier III) do your repeat offenders have? (Circle one for each repeat offender)

Student A	0	1-5	6-10	11-15	16 or more
Student B	0	1-5	6-10	11-15	16 or more
Student C	0	1-5	6-10	11-15	16 or more
Student D	0	1-5	6-10	11-15	16 or more
Student E	0	1-5	6-10	11-15	16 or more

Please answer the following questions to help gain a better understanding.

Academics:

13. How many students are referred because the students started kindergarten lacking preschool experience?

Number of students referred for lacking preschool experience_____

14. In your opinion, have increased academic standards impacted the number of academic referrals you have experienced?

a. Yes

b. No

15. What types of academic concerns have you referred? (Please list)

16. How many instructional hours do you have in an average school day? _____

17. How many hours are planned during which students are interacting and exploring through play? _____

Behavior:

18. What types of behavioral offenses have you referred? (Please list)

19. In your opinion, have increased academic standards impacted the number of behavioral referrals you have experienced?

a. Yes

b. No

20. What time throughout the day do most behavior referrals occur? (Please circle)

Morning
Lunch
Afternoon

21. What activities are typically happening during the following times when the most behaviors occur? (Please write the activities on the blank?)

Morning: _____
Lunch: _____
Afternoon: _____

22. What disciplinary steps/ interventions were taken prior to the behavioral referral? (Please list)

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APPENDIX C

PRINCIPAL CONSENT TO CONDUCT RESEARCH

By clicking, "I Agree," you are giving consent to participate in this research project and understand the following:

Project Background
This project involves gathering data through the Question Pro online survey that follows, and will look into the differences between Missouri kindergarten classrooms who use play-based learning and those who do not on students' academic achievement and behavior through examining their behavioral and academic referrals. The data will be collected for analysis and may be published. Participants must be of at least 18 years of age to participate and must currently be a kindergarten teacher in a Missouri public school.

Purpose
The purpose of this study is to identify the differences between Missouri kindergarten classrooms who use play-based learning and those who do not on students' academic achievement and behavior through examining their behavioral and academic referrals.

Voluntary
The survey is entirely voluntary. You may refuse to answer any question or choose to withdraw from the study at any time, without any penalty or loss of benefits to which you are otherwise entitled.

Procedures
Principal participants will receive an email that includes an online survey invitation and link to the survey. This invitation to participate will be sent to all elementary principals serving a Missouri public school, housing kindergarten classrooms. The principals will then be asked to forward the letter and survey on to any kindergarten teachers in their buildings.
This study seeks to identify the differences between Missouri kindergarten classrooms who use play-based learning and those who do not on students' academic achievement and behavior through examining their behavioral and academic referrals Therefore, it is necessary to have participation from **kindergarten teachers** throughout the state of Missouri. It is necessary to first obtain the principal's consent to participate in the study before the teacher survey is distributed. Principals who agree to participate will be instructed to distribute the survey to kindergarten teachers within their building via e-mail.

Duration of Involvement
Participation in this study should only take approximately 15 minutes or less. Kindergarten teachers will only take the survey one time. Following the survey, your participation will be complete once you have completed the survey and submitted it. No

further involvement is necessary. Participants may request to receive a copy of the findings from the research when complete.

Confidentiality
Your confidentiality will be maintained in that a participant's name will not appear on the survey or in the published study itself. Kindergarten teachers who participate will not have any identifying information collected through Question Pro when they agree to participate in the study. Question Pro is a secure, password protected system that will keep the data from this study safe and confidential. The data will only be reported in cumulative form. Anonymity for teachers can be guaranteed. Confidentiality will be ensured for all participants.

Risks
This project does not pose any risks greater that those encountered in everyday life.

Benefits
Your participation in this research project will enhance the information base for curriculum in early childhood education, specifically kindergarten. The research can add to the database what differences in play-based and non-play-based learning exist by examining the number of referrals on both behavioral and academic tiers within those kindergarten classrooms. Additional benefits might include foresight into professional development opportunities that could improve a kindergarten classrooms' curriculum by identifying effective instruction design to better serve both students' academic achievement and improve behavior.

Thank you for your assistance in providing information regarding kindergarten play-based and non-play-based curriculum and the academic achievement and behavioral differences of kindergarten students' that exist. Your time and effort is greatly appreciated. If you have questions regarding this study, please contact me at (417)-718-0294, or s722030@sbuniv.edu. You may also contact my Faculty Advisor, Dr. Tammy Condren, at (417)328-1737, or tcondren@sbuniv.edu.

The SBU Research Review Board has reviewed this study. If you have questions regarding your rights as a participant in research, please feel free to contact the Research Review Board Chair, Martaun Stockstill at(417) 328-2089, or RRB@sbuniv.edu. Thank you in advance for your assistance with this research project.

Sincerely,

Ashley Bough, Doctoral Candidate
Southwest Baptist University