THE IMPACT OF RECESS ON CHILDREN’S SOCIAL/EMOTIONAL DEVELOPMENT, CLASSROOM BEHAVIORS, AND TEACHER PEDAGOGY: AN EXPLORATORY CASE STUDY OF ELEMENTARY SCHOOL STUDENTS AT PLAY

Lori M. Koerner

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A dissertation submitted in partial fulfillment of the requirements for the degree of

DOCTOR OF EDUCATION

to the faculty of the

DEPARTMENT OF ADMINISTRATIVE AND INSTRUCTIONAL LEADERSHIP

of

THE SCHOOL OF EDUCATION

at

ST. JOHN’S UNIVERSITY

New York

by

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Submitted Date: November 25, 2019       Approved Date: November 25, 2019

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ABSTRACT

THE IMPACT OF RECESS ON CHILDREN’S SOCIAL/EMOTIONAL DEVELOPMENT, CLASSROOM BEHAVIORS, AND TEACHER PEDAGOGY: AN EXPLORATORY CASE STUDY OF ELEMENTARY SCHOOL STUDENTS AT PLAY

Lori Koerner

Recent reports have stated that schools across the United States have been reducing recess so that more time can be spent in the classroom. There has been little research to prove that more time in the classroom and less recess equals better academic outcomes for children.

The purpose of this study was to discover the impact recess on elementary school students’ social competencies, emotional development, classroom behaviors, and teachers’ pedagogy and instructional practices.

The elementary school is in a suburban district in United States. It has a population of 457 students. The population is culturally diverse with 10% of the students receiving English as a Second Language. The percentage of students with disabilities is 16%, and 43% of students are socioeconomically disadvantaged.
Twelve teachers participated in interviews. Students were observed during various recess breaks over five sessions. The researcher took notes regarding social interactions, communications, and play behaviors. The sample size for assessing classroom behaviors prior to and following recess consisted of 30 first-grade students.

The results of this study validate the value of recess and play experiences for children. The study of classroom behaviors exposed the reality that students were more focused and less fidgety following a recess break. Teachers’ responses revealed that recess was valuable for students’ social, emotional, academic, and physical development. It also revealed that teachers feel better about their pedagogy as a result of being permitted to implement recess breaks in between sustained instruction. The literature review provided evidence that block time and more time in the classroom with minimal breaks for students is poor practice and a detriment to proper child development.

Research has indicated that recess is essential for children’s social, emotional, creative, and cognitive well-being (American Academy of Pediatrics, 2013; Barros, Silver, & Stein, 2009). Children’s experience, however, varies widely from school to school.

Future research should focus on the differences in recess mandates from state to state and the social, emotional, and academic outcomes of children.
DEDICATION

This research study is dedicated to my family for their unwavering support along my journey. Caitlin, Dylan, Shannon and Sean, you are my shining lights and I am forever grateful to each one of you for your understanding of the time involved in this research study. Each one of you played an integral role in making sure that I reached my ultimate goal. Thank you for listening to me chatter, reason, question, and vent, even when you were unsure of what I was talking about! I am grateful for late night work time together, for your ideas and analyses, and for your independence and help in doing all of the things that temporarily went by the wayside while I was deeply involved in my work. I love you the purplest.

For my husband, Larry, thank you for always standing by my choices. You never question and you always do whatever is necessary to ensure that I reached my personal achievements. I am the luckiest, and I am grateful for having you by my side. Love you forever.
ACKNOWLEDGEMENTS

Thank you to Dr. Anthony Annunziato, my mentor, for his wisdom, expertise, guidance and unwavering patience with me through this process. Many thanks to my committee members, Dr. Richard Bernato and Dr. Barbara Cozza for their expertise, focused feedback and guidance.

To David, my informal, unpaid mentor, guide and dear friend. Thank you for all the days and nights writing on little yellow paper, assisting me in working though this study from beginning to end. I am so grateful for your wisdom, guidance and eternal friendship.

Eternal gratitude to MH for the opportunity to implement positive, sustainable change and to conduct this research study. Maslow before Bloom.

To KA, from far away, thank you for your support and cheering, and for helping me to see the light. I am grateful for our newfound friendship, and for your constant words of encouragement throughout this entire process. I am very grateful.

With gratitude to my parents for raising me to be a strong, determined woman.
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CHAPTER ONE

Introduction

“The fact is that given the challenges we face, education doesn’t need to be reformed—it needs to be transformed. The key to this transformation is not to standardize education, but to personalize it, to build achievement on discovering the individual talents of each child, to put students in an environment where they want to learn and where they can naturally discover their true passions.” –Ken Robinson (Robinson & Aronica, 2010)

Recess has been part of the school day in American education for as long as we can remember. Since recess is considered “play time,” adults usually regard it as a break from the serious work of the day—reading, writing, and arithmetic (Pellegrini, 2008). In his article, “The Recess Debate: A Disjuncture between Educational Policy and Scientific Research,” Pellegrini (2008) shared the reality that school superintendents and principals across the United States, along with many politicians, claim that recess is “a waste of valuable time that could be more profitably used for instruction” and that “during recess kids get bullied and that on the playground they learn aggression.” This perception, Pellegrini stated, “has led many districts to question the need for recess. There is much research that indicates the contrary, and that it is through the interactions provided during recess when children learn social skills, cooperation, communication, and self-regulation skills” (Jarrett & Waite-Stupiansky, 2009; Pellegrini, 2008; Pellegrini & Glickman, 1989).

In 1983, A Nation at Risk alarmed our country that the educational foundations of our society were being eroded by mediocrity. Since that time, there have been numerous federal, state, and local reformations to our American education system, none of which have had measurable results in improving the quality of American education. Throughout the last 20 years, states have been incentivized to raise graduation
requirements by competing for funding. We have also seen the implementation of a
defective accountability system for educators based on test scores. For example, No
Child Left Behind (2001), a program introduced by the federal government that focused
on improving the bottom 10% of all students, left many children behind and placed an
unwarranted emphasis on scores of numerical grades, which left teachers questioning
their practices. The federal government’s version of corporate education reform came in
the policy of Race to the Top (2009) with states competing for funds. The
implementation of Common Core narrowed existing curriculum and forced teachers to
instruct from the scripts of packaged programs. These programs, created by profiting
corporations, promised to raise test scores, which would increase teachers’ Annual
Professional Performance review scores, which would ultimately make everything
“better.”

It has not been proven that in 1983 when A Nation at Risk was released that our
system was actually failing our children. The 1980s were a time of threat from a
formidable competitor in the Japanese (Peters & Waterman, 1982). They were buying
American institutions, including Firestone Rubber and Tire, Columbia Pictures, and even
Rockefeller Center (Gara, 2017). The focus then fell onto the education system as the
root cause of our inability to compete. The hype surrounding American education as a
result of A Nation at Risk was an impulsive reaction to global pressure and not
necessarily that our education system was in dire need of an overhaul. The most famous
line of the widely publicized report declared that, “…the educational foundations of our
society are presently being eroded by a rising tide of mediocrity that threatens our very
future as a Nation and a people” (A Nation at Risk, 1983) In the wake of that hysteria, we have ultimately caused the destruction of our American public education system.

The state-led effort to develop the Common Core State Standards was launched in 2009 by state leaders, including governors and state commissioners of education. The Common Core Standards were intended to define the reading and math skills that students should be able to master at each grade level. They were officially initiated in 2009, and in June 2010, the final Common Core Standards were released to the public and state education agencies. By December 2013, forty-five states and Washington DC had adopted the Common Core Standards for English language arts (ELA) and mathematics. By the 2014–15 academic year, every state was required to have in place Common Core aligned assessments to ensure that students were “college- and career-ready.” According to Singer (2016), in fall 2015, the National Assessment of Educational Progress (NAEP) tested a representative sample of high school seniors in the graduating classes of 2016. After 7 years of Common Core curriculum and assessment, the NAEP tests showed:

- The average performance of high school seniors dropped in math and failed to improve in reading from 2013 to 2015. Performance was also down on both tests from 1992, the first year that similar tests were used.
- There was a decline in the percentage of students in both public and private schools that are rated as prepared for college-level work in reading and math. In 2013, 39% of students were considered ready for college math, and 38% were prepared for college-level reading. Nevertheless, in 2015, only 37% were prepared for college.
According to Singer (2016), in an era of high stakes testing, the stakes will never be higher than they had been with the Common Core. The responsibility of a school’s success or failure with the Common Core Standards has ultimately fallen back on its leadership. Under state and federal guidelines, administrators who had not prepared teachers and students for the Common Core Standards could have lost their job if students did not perform adequately. Singer (2016), stated, “These tests, as former U.S. Secretary of Education John King conceded, are basically designed so that 70% of students will fail, with a much higher percentage among students with disabilities, English Language Learners, and children who live in poverty.” He also stated, “There has been very little, to no substantiated, research which has proven that more time in the classroom, and less recess, equals better academic outcomes for children.”

This initiative has morphed into a national curriculum inclusive of disproportionate high stakes assessments where quantity superseded the quality of educating children. This curriculum had forced teachers to become robotic in their instructional practice and teach for the high stakes tests that are not used to determine student knowledge and potential but instead the perceived adequacy, or inadequacy, of teachers as a key metric for their Annual Professional Performance Review (APPR). According to the Teacher’s College Record, (2014), these state assessments have been outsourced to large corporations to a profit estimated at over two million dollars as of 2012. Although independent verification and testing is good practice, outsourcing millions of dollars to corporations (with arguably limited domain expertise in educating children) does not make more sense than spending the money on improving the education system and measuring via independent committees with domain expertise.
The Teacher’s College Record, (2014), also stated, “The relative advantage of outsourcing assessment to corporations and external agencies has yet to become apparent, decades after the switch.” This attempt at a national homogenization of student learning across the United States has resulted in low teacher morale, narrowed elementary curriculum, convergent instructional practice, increased childhood anxiety, and the unscrupulous education of children who will face a society for which they are unprepared to succeed (Zhao, 2012).

What is predominantly noteworthy is that the changes to a standard based, score-based education have not been shown to improve education (Lee, J., & Wu, Y., 2017). To the contrary, research and education experts all support that we must change course from this model and instead nurture children in all aspects of their lives if we are to offer a true holistic, whole child education. According to a report from the Play, Policy, and Practice Forum (Jarrett & Waite-Stupiansky, 2009):

There is no research to support administrators’ assumptions that test scores required by NCLB could be improved by keeping children in the classroom all day. On the other hand, there is considerable research to suggest that recess has many benefits for children in the cognitive, social-emotional and physical benefits of recess (p. 66).

In centering on an educational vision that supports the entire child, by offering children varied opportunities at school, inclusive of ample time for recess, play, and breaks from sustained instruction, we avoid a structure that could potentially increase childhood anxieties and fears (Gray, 2013). This is where recess plays an integral role in the education and development of children. According to the American Heart Association
(2016), recess is critical to healthy growth and to the successful performance of children in school. Recess time not only offers students fitness, it also offers them time to connect with their peers, communicate and collaborate upon ideas, learn teamwork and conflict resolution, and become more creative. When children finish playing, they are ready to be in a classroom again and are prepared to focus. According to Dr. Peter Gray, a well-known psychologist from Boston College and author of *Free to Learn* (2013), the importance of play is crucial for children’s healthy psychological development and ability to thrive in life, and yet it is woefully underestimated by parents and educators.

“In short, play is how children learn to take control of their lives,” stated Gray (2013).

Since the implementation of rigorous reformations, schools and school districts have been over-focused on myopically improving test scores by increasing instructional time through the reduction of recess (Jarrett, 2014; National Education for the Education of Young Children, 2001; Pellegrini & Bohn, 2005). In spite of the fact that current educators and educational leaders have memories of recess, including playing tag, capture the flag, swinging on swings, and flying high up on a teeter totter, the children of today, our future leaders and citizens, may end up having very few, if any, memories of these types of activities. As a result of NCLB, many districts across the United States have seen a continued decline in recess; it is being questioned, reduced, and even eliminated (Burris & Burris, 2011; Jarrett, 2014; National Education for the Education of Young Children, 2001; Pellegrini, 2005). In an effort to meet federal and state standards, the days of recess are dwindling; yet, the reality is that recess may not be the problem but the first step in a necessary shift in educational paradigm, which, in time, offers the solution.
For the purpose of this study, recess is defined as “a break period, typically outdoors, for children” (Pellegrini & Smith, 1993). Recess is a time when children have more freedom to choose what they want to do and with whom.

**Problem Statement**

Beginning with the passage of the No Child Left Behind Act of 2001 (NCLB), and continuing through the present day with increased annual testing requirements and tremendous business opportunities in education, the philosophy and purpose of American public education has drastically changed. The No Child Left Behind Act of 2001 (NCLB) was the previous reauthorization of the Elementary and Secondary Education Act of 1965. Passed by Congress in 2001 with clear bipartisan support, NCLB was signed into law by President George W. Bush in January of 2002. The law greatly increased the federal government’s role in education, especially in terms of holding schools accountable for the academic performance of their students. Although NCLB covers numerous federal education programs, the law’s requirements for testing, accountability, and school improvement received the most attention. NCLB required that states test students annually in both English language arts and mathematics in Grades 3–8 as well as once in Grades 10–12. States must also test students in science three times: once in the grade span of Grades 3–5, again in Grades 6–8, and a final time in Grades 10–12. Individual schools, school districts, and states were required to publicly report test results for all students and for specific student subgroups, including low-income students, students with disabilities, English Language Learners, and major racial and ethnic groups. The debate over the bill’s testing and accountability provisions prompted many questions. These questions contemplated whether states would maintain control over their own
standards and tests and how the new mandates would be funded. Questions also arose regarding how test results would be reported, where the bar would be set for defining proficiency and adequate progress, how schools would be held accountable, and whether states’ test scores would be compared against an independent national benchmark, the National Assessment of Educational Progress (NAEP).

Since the beginning of the 21st century, it appears that far too much emphasis has been placed on test scores in literacy and mathematics and standards-based school reform. The aftermath is that the concept of teaching children, rather than focusing solely on test scores has been lost. While data, accountability, and assessment are important and necessary, they should not be the only focus to educating our children. While children certainly benefit from receiving quality instruction in the content areas, we must also take into consideration the various ways in which children learn. Abraham Maslow and Jean Piaget, two of the most well-known and respected theorists of play and learning, stressed the role of play and its importance in social, emotional, and cognitive development in children.

Childhood anxiety is at an all-time high (Gray, 2010). Therefore, schools and school districts should consider the position of The National Association of Early Childhood Specialists in State Departments of Education (2002) that recess is an essential component of education and that preschool and elementary school children must have the opportunity to participate in regular periods of active, free play with peers. In addition, the current clinical recommendation of the American Academy of Pediatrics states, “Recess is a necessary break in the day for optimizing a child’s social, emotional, physical, and cognitive development. Therefore, the problem is that recess should be
considered a child’s personal time, and it should not be withheld for academic or punitive reasons” (Murray & Ramstetter, 2012).

Many educational leaders and politicians have claimed that recess is “a waste of valuable time that could be more profitably used for instruction” and that “during recess kids get bullied and that on the playground they learn aggression” (Pellegrini, 2008). Pellegrini stated that this opinion “has led many districts to question the need for recess. The research of Jarrett and Waite-Stupiansky (2009), Pellegrini and Glickman (1989), and Pellegrini (2008) showed evidence that it is through the interactions provided during recess when children learn social skills, cooperation, communication, and self-regulation skills.

**Statement of Purpose**

Recess has traditionally been part of the school day in elementary schools, offering students the opportunity to burn energy, socialize, communicate, and collaborate with their peers. In recent years, recess has waned across the United States in an effort to increase academic achievement. The purpose of this study is to explore the impact of a recess period on elementary school students’ social competencies, emotional development, and classroom behaviors, especially during sustained instruction. This study also seeks insight of the implementation of recess breaks on teachers’ pedagogy and instructional practice. This study is designed to draw conclusions of an approach to teaching and learning that encompasses the education of the whole child, where play is valued and children are developed socially and emotionally throughout the school day so that they are well equipped to maximize their focus, improve classroom behaviors, and heighten attention to learning.
Research Questions

To meet the expectations of our future, educators need to depart from the ideas and pedagogies of yesterday and become bold advocates to develop the types of learning dispositions needed for today’s learners (Hong, 2011). The reality is that most jobs and careers that we are preparing our children for do not exist today. Enacting change is complex. We need to empower teachers as curriculum designers to be able to breathe life back into education and foster the love for learning that our children need in order to meet success.

Several research questions guided this body of work.

- **Research question 1:** How does recess affect children’s classroom behaviors?
- **Research question 2:** What are teachers’ perceptions of recess breaks on children’s social/emotional development?
- **Research question 3:** How does the implementation of recess periods between sustained instruction impact teachers’ pedagogy and practice?

These questions speak to the essential components of school change, away from standardized education and towards a whole child philosophy of educating children, developing every aspect of their lives.

Overview of Methodology

This is an exploratory case study. Case studies are a strategy of inquiry in which the researcher explores a program, event, activity, process, or one or more individuals in depth. Researchers conducting case studies collect detailed information using a variety of data collection procedures over a period of time (Creswell, 2009). The case study method enables a researcher to closely survey the data within a specific context. A case
study method generally includes a small geographical area or a very limited number of individuals as the subjects of study. Yin (1984) defined the case study research method “as an empirical inquiry that investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used.” Exploratory case studies aim to find answers to the questions of “what?” or “who?”. Exploratory case study data collection method(s) include interviews, questionnaires, and experiments.

**Triangulation of Data**

This study uses questionnaires, semi-structured interviews, and field observations, which allows the researcher to understand teachers’ perceptions of recess. It is designed to elucidate what recess breaks can offer for children’s social, emotional, and physical development as well as their classroom behaviors regarding attention to learning. It also allows the researcher to hear from the teachers and explicate their thoughts on the implications of recess and its effect on their own pedagogy and instructional practice. The methodological triangulation allows for an understanding of how recess influences students’ development and behaviors within the classroom and whether it changes pedagogy and practice.

The kindergarten through fifth-grade public elementary school is in a suburban school district located nearby a large metropolitan city in the northeastern part of the United States. This school has a population of 457 students with 54% male and 46% female. The population is culturally diverse with 10% of the students receiving English as a Second Language services. The ethnic breakdown of student population is as follows: 2% Asian, 2.5% African American, 29.6% Hispanic, and s% Caucasian. The
percentage of students with disabilities is 16%, and 43% of students are
socioeconomically disadvantaged as evidenced by the number of children who receive
free and reduced lunch. There are 21 classroom teachers in the school, 19 of whom have
been in the school for more than three years and have experienced varied forms and
structures of recess through their tenure. This school employs a full-time social worker
and a full-time psychologist.

Twenty-one classroom teachers were surveyed regarding a 60-minute recess
period before the start of the school day, the timing of recess breaks throughout the
school day, and the length of recess breaks and their impact on their students’ social and
emotional growth and development and their cognition, specifically where attention to
learning is concerned. Twenty-one kindergarten through fifth-grade teachers in this
suburban elementary school were invited to participate in semi-structured interviews
regarding their observations of students’ social, emotional, and cognitive abilities as they
relate to recess during the school day. A focus group was assembled in the same
elementary school to discuss the topic with related service providers and school mental
health professionals.

Students were observed during various recess breaks over five sessions. The
researcher took field notes regarding social interactions, children’s communications, and
play behaviors. The sample size for assessing classroom behaviors prior to and following
recess consisted of 30 first-grade students distributed across three separate general
education classes. A random selection of students was determined as participants. The
process for this selection was every other student on each classroom teacher’s roster.
Significance of the Study

The traditional educational paradigm is no longer adequate for our changing world. In his book, *World Class Learners*, Zhao (2012) stated:

The efforts to develop common curriculum, nationally and internationally, are simply working to perfect an outdated paradigm. The outcomes are precisely the opposite of the talents we need for a new era. It is the wrong bet for our children’s future (p. 45).

Multiple problems have affected our American education system. A vast amount of research exists regarding the need for a shift in educational philosophy and the effects that our current American education system has on children, teachers, school leaders, and educational organizations. However, there have been few studies grounded in the importance of offering children opportunities to develop social competencies, emotional well-being, and improved classroom behaviors through recess breaks.

This study explores children’s social, emotional, and physical development through recess opportunities, and it examines recess breaks and to what extent those breaks influence classroom behaviors and attention to learning. Recess is at the heart of a vigorous debate over the role of schools promoting the optimal development of the whole child.

Critics of the recess debate have claimed that recess is a waste of instructional time and can increase injuries while in school and foster bullying and aggression in children. The reality is that in numerous controlled experiments, children’s attention to learning waned the longer they were deprived of a break (Pellegrini & Bohn, 2005), and therefore, recess actually assisted in maximizing attention to instruction. Though there may be some truth to the concept of children being bullied during recess time and on the
playground, they also get bullied in the cafeteria, hallways, bathrooms, and any other areas where there may be minimal adult supervision (Pellegrini, 2005). Bullying has not much to do with recess itself but more so with the culture and climate created within schools and school districts. According to Pellegrini & Bohn (2005), the key to recess success is to ensure that there is ample adult supervision and that it offers children the time to learn how to cooperate and compromise so that undesirable behaviors decrease and collaboration and cooperation increase. The other side to the critics’ arguments has been that recess is one of the only times during the day where children have the opportunity to hone in on their social skills and interact with their peers. Children do not learn social skills through lectures by adults; they learn them through participation and practice of those skills.

Research also has indicated that optimal cognitive processing in a child necessitates a period of interruption after a period of concentrated instruction (Murray & Ramstetter, 2012. According to a report entitled, “The Crucial Role of Recess” by the American Academy of Pediatrics (2013), several studies demonstrated that recess made children more attentive and more productive in the classroom. This finding was true even for students who spent most of their recess time socializing. Furthermore, the same study indicated that any type of activity at recess benefited cognitive performance following the break. When children are active in the mode of their choosing, even for minor movement during recess, it counterbalances sedentary time, stimulates blood flow, and conquers obesity all at the same time (Murray & Ramstetter, 2012).

According to Dewey, Boydston, and Cahn (2008), intellectual activity should be interspersed with short periods for reflection (meditation) even for young children, but
those moments are only effective when they follow times of physical activity. With the changes to standards and expectations, teachers are more inclined to expect children to attend for periods of time that would challenge many adults, including 90-minute block periods each for learning reading and math. This practice has become the new normal due to a “more is more” mentality rather than a “less is more” approach to educating children. Content area skills are taught through deep work, inclusive of taking time to solidify children’s understanding with appropriate and individualized pacing, and with activities that include time to play and explore the world around them. There are various ways to ensure the understanding and transfer of knowledge and skills outside of pushing children to sit for long periods of sustained instruction. A new shift in the educational paradigm should include short periods of instruction, coupled with periods of collaborative group work, and interspersed with break periods for children to recharge and refocus their attention (Jarrett, 2014).

The traditional paradigm in education is powerful but not so much so that we should be unwilling to look at shifting the paradigm to include what is in the best interest of children and become child centric (Robinson & Aronica, 2010). In looking at successful ways to improve the education of our students in America, leadership matters. Schools and school leaders need to take actions to reconfigure the educational environment they create for students (Zhao, 2012). In maintaining a flexible approach to teaching and learning, our students will be better equipped for the future (Zhao, 2012).

Orchestrating change requires all stakeholders to minimize their perceived assumptions. The findings of this study will offer educational leaders, teachers, Boards of Education, parents, and community members much information regarding the values
of recess and its impact on children’s social and emotional growth and classroom behaviors. The findings will also illuminate how the factors surrounding recess relate to student learning and development because of teacher pedagogy.

**Role of the Researcher**

The researcher is the principal of the elementary school where this case study will be conducted. In the three years that the researcher has served as principal, recess was shifted to a 40-minute block through a district-wide initiative. In the 2018–2019 school year, recess breaks were offered throughout the school day, particularly prior to and following sustained instruction. As principal of the elementary school where this research is being conducted, clarification of the role of the researcher, including all biases, assumptions, and experiences must be revealed to readers as it may potentially affect the data.

As an educator for 30 years, I spent the first 26 of those years teaching in the general education classroom. I taught on every grade level, pre-kindergarten through sixth grade. I also served as an adjunct professor of special education for a decade and obtained a position as coordinator of a summer program for elementary students at risk of needing more support and assistance. Through my time in education, I realized that the paradigm had changed. Schools and school districts were implementing a structure within elementary schools across the United States, which included more sustained time on task and less time for recess, play, and socialization. I began to notice the unintended consequences of this design. Children appeared more anxious and less in love with school and learning, and research has indicated that there has been no observable increase in academic achievement and graduation rates across the United States because of
increased instructional time. I recognized that in order to be able to change this paradigm and implement positive change in the structure and design in elementary school, I needed to become a leader in education. As a building principal in a progressive school district, working alongside a supportive district leader and Board of Education, I am able to assist in the implementation of a paradigm shift within this elementary school.

This study employs an exploratory case study design. A protocol was used to collect data regarding the behaviors of students. Children’s behaviors will be randomly observed in each of three first-grade classrooms prior to recess and following recess over the course of 5 weeks. The visits will be unobtrusive by nature, and classroom teachers will understand the protocol utilized so that they have a good understanding of the rationale for the visits.

The researcher will serve as a non-participant human instrument by conducting field observations during recess periods and in the classroom and during recess and by interviewing faculty members.

**Researcher Assumptions**

1. The researcher assumes that recess offers children increased opportunities for socialization.

2. The researcher assumes that recess provides children with opportunities to support their emotional well-being.

3. The researcher assumes that recess allows for increased attention to learning.

4. The researcher assumes that recess breaks transform teachers’ pedagogy and assist in applying optimal instructional practices.
Definition of Terms

A Nation at Risk: The Imperative for Educational Reform is the 1983 report of American President Ronald Reagan’s National Commission on Excellence in Education. Its publication is a landmark event in modern American educational history (A Nation at Risk: The Imperative for Educational Reform, 1983).

Before School Activity: A 1-hour period before the school day when children choose unstructured free play activities either indoor or outdoor.

Common Core: State education chiefs and governors in 48 states came together to develop the Common Core, a set of clear college- and career-ready standards for kindergarten through 12th grade in English language arts/literacy and mathematics preparing America’s students for success.

No Child Left Behind: No Child Left Behind (NCLB) was the most systematic revision of the federal education statutes since the original passage of the Elementary and Secondary Education Act (ESEA) in 1965 (Daniel, 2006).

Qualitative Research: Research conducted using data collection instruments as surveys, interviews, and observations to gain an understanding into a phenomenon related to an individual, organization, or any other functioning collaborative unit. Perceptions and participant point of view is utilized by the researcher to formulate conclusions as opposed to statistical data utilized in quantitative research.

Recess: Period in a school day where students are free to explore activity in any manner that they choose; self-directed, unstructured play. A break period, typically outdoors, for children (Pellegrini & Smith, 1993).

Social/Emotional Learning: Social and emotional learning (SEL) is “the process through which children and adults understand and manage emotions, set and achieve positive
goals, feel and show empathy for others, establish and maintain positive relationships, and make responsible decisions” (CASEL.org, 2019).

**Physical Breaks:** Time to move about and stretch in between sustained learning time.  

**Play:** To engage in activity for enjoyment and recreation rather than a serious or practical purpose (“Play,” 2019).

**Organization of the Dissertation**

The rest of the work in this study is as follows: Chapter 1 introduces the concepts and rationale for the study. Chapter 2 offers a review of the related literature. The third chapter describes the methodology for the research. Chapter 4 provides the findings from the relevant data analysis, and Chapter 5 discusses the implications for further research.
CHAPTER TWO

Review of Related Literature

“Play gives children a chance to practice what they are learning.” - Mr. Rogers

The review of related literature for this dissertation examines the impact of recess and play on children’s social, emotional, physical, and cognitive growth and development. It also studies several theories that relate to child development and learning. These theories include Maslow’s Hierarchy of Needs, Jean Piaget’s Theory of Child Development, and the Cognitive Immaturity Theory. The literature sources used for this review include the Education Research Information Clearinghouse (ERIC); EBSCOHost; Proquest; reference lists and works cited lists from scholarly, peer reviewed articles; and books related to recess, play, and child development.

The following literature review is divided into several sections. The first section examines play. The second studies the role of recess for children. The following section explores the theories that relate to child development and learning. The last three sections include recess and social and emotional development, recess and physical development, recess and classroom behaviors, teacher pedagogy, and matters of leadership in implementing a change in paradigm to include recess back into the structure of elementary school design.

The Role of Recess

Beyond the direct benefits that instructional breaks (recess) have on student learning, there are also social, emotional, physical, and cognitive benefits for students that contribute to a positive classroom teaching and learning environment. According to Pellegrini (2005), the benefits associated with recess are both immediate and deferred;
that is, recess provides a break from sustained periods of work; yet, it also has deferred benefits that include the acquisition of skills through play. Pellegrini also stated that children learn better when given breaks during tasks rather than concentrating on long periods of instruction. He posited that given the positive effects of the distributed practice on children’s attention to learning, it is quite puzzling as to why recess breaks are not prevalent in classrooms.

In her updated paper entitled “A Research-Based Case for Recess,” Olga Jarrett (2019) postulated that in the United States, recess policy and practice varies significantly from state to state. According to Jarrett, in a 1989 survey of state superintendents conducted by the National Association of Elementary School Principals (NAESP), 96% of school districts reported that their students had daily recess. However, in the 10 years following, the number of schools with recess had decreased significantly. Jarrett stated that official figures provided by school districts following NCLB showed that 20% of school systems in the United States had decreased recess time, resulting in an average cut of 50 minutes per week. The decline and deprivation of recess ignores the rights of children. Article 31 of the United Nations Convention on the Rights of the Child (UN Committee on the Rights of the Child, 2013), recognizes recess as, “The right of the child to rest and leisure, to engage in play and recreational activities appropriate to the age of the child and to participate freely in cultural life and the arts.”

Research conducted on attention and brain function has indicated that recess breaks are needed for several reasons. These reasons include: the brain is not capable of maintaining attention for long periods, downtime is necessary for the brain to process
information because of the recycling of chemicals for long-term memory, and attention is cyclical, involving rhythmic patterns throughout the day (Jenson, 2005).

A nationwide study on how first- through fifth-grade children spend their time at school found that on any given day, 21% of children did not have any recess (Roth et al., 2003). The study noted demographic disparities, including the fact that 44% of children living below the poverty line versus 17% of those above the poverty line were deprived of recess. The study also indicated that 39% of African American children versus 15% of Caucasian students did not have recess. Lastly, Roth et al. (2003) brought to light that 25% of children who scored below the mean on a standardized test versus 15% of those above the mean did not have recess.

A study in Pediatrics (Barros, Silver, & Stein, 2009), using a national dataset of 11,000 children, found that 30% of third-grade students had less than 15 minutes of recess a day. Withholding recess is frequently used as a punishment or consequence for behaviors. The reality is that the children who display fidgety or aggressive behaviors are the ones who need recess most. As of 2016, only two states prohibited denying students recess as a form of punishment, Connecticut and Colorado, and Oregon, Delaware, West Virginia, and Arkansas prohibit the use of physical activity as punishment. North Carolina, New York, Massachusetts, Louisiana, Hawaii, California, and Alabama prohibit the use of the aforementioned as punishment (Jarrett, 2019). To ensure that all children are afforded recess daily during the school day, state officials need to pass laws and mandate recess. Recess should also be considered as a necessary and valuable part of the instructional day.
What is Play?

A majority of the definitions of play focus on several key criteria. These include the notions that play includes “activities that are freely chosen and directed by children and arise from intrinsic motivation” (White, 2012). The National Association for the Education of Young Children (NAEYC, 2001) named play as a central component in developmentally appropriate educational practices, and the United Nations High Commission on Human Rights (1989) recognized play as a fundamental right of every child. Although experts continue to emphasize the importance of play, the actual amount of time that children are playing is continually decreasing, and our society has created a false dichotomy between play and learning (White, 2012).

The reality is that play is learning. Lev Vygotsky (1978), a Russian psychologist, noted that play “contains all developmental tendencies in a condensed form and is itself a major source of development (p. 102). Play offers children multiple opportunities and modes to reach their maximum potential. When 4-, 5-, 6-, and 7-year-old children play, they are able to achieve things at the farthest edge of their zone of proximal development (Vygotsky, 1978). Vygotsky (1978) was a proponent of the idea that children learn best when we build on their strengths, so it is necessary to offer children time to do what they do best, which is to play (Mraz, Porcelli, & Tyler, 2016).

In Brown & Vaughan’s book, *Play: How It Shapes the Brain, Opens the Imagination, and Invigorates the Soul* (2010), he argued that play has an essential role in fueling our happiness and intelligence throughout our lives and that it is as essential to our health as sleep and food (Mraz et al., 2016). Brown & Vaughan (2010) also brought to light that “play in its most basic form proceeds without a complex intellectual framework” (p. 15) and that “in playing, we create an imaginative new
cognitive combination” (p. 37). He also shared, “Play is a state of mind, rather than an activity; an absorbing, apparently purposeless activity that provides enjoyment and a suspension of self-consciousness and sense of time” (p. 60). The authors of Play for Change (Lester & Russel, 2008) defined play as, “What children and young people do when they follow their own ideas, in their own way, for their own reasons” (p. 10). Brown (2010) added to this definition by incorporating “freedom of time” and “improvisational potential” to the mix (p. 17).

In his book Creative Schools, the Grassroots Revolution That’s Transforming Education (Robinson & Aronica, 2015), Ken Robinson wrote:

The importance of play has been recognized in all cultures; it has been widely studied and endorsed in the human sciences and demonstrated in practice in enlightened schools throughout the world. And yet the standards movement in many countries treats play as a trivial and expendable extra in schools—a distraction from the serious business of studying and passing tests. The exile of play is one of the great tragedies of standardized education. (p. 94).

Robinson also stated that “Children have a powerful, innate ability to learn…and that play is fundamental to learning; it is the natural fruit of curiosity and imagination” (p. 96).

In his book Free to Learn, Peter Gray (2013) contended the fact that play is how children make friends, overcome their fears, and take control of their lives. Gray shared the notion that play is the primary means by which children acquire the physical and intellectual skills necessary for success in a global society.
Educational Theories Regarding Recess, Play, and Child Development

The framework for the study outlined in this dissertation includes the underpinnings of several theories regarding child development, play, and learning. These theories include Maslow’s Hierarchy of Needs, Piaget’s Theory of Cognitive Development, and the Cognitive Immaturity Theory. Therefore, physical activity, through recess, may be a supportive element to the development of social competencies, emotional well-being, and successful classroom management, and it may assist in student achievement. The framework of this study includes several theories regarding the basic social/emotional needs of children and classroom behaviors as they relate to attention to learning.

Maslow

In a 1943 paper called “A Theory of Human Motivation,” Abraham H. Maslow presented the idea that human actions are directed toward goal attainment (Cohen, & Waite-Stupiansky, 2017). Maslow’s Hierarchy of Needs represents a hierarchical pyramid with five levels. The four levels (lower-order needs) are physiological needs, while the top level of the pyramid characterizes growth needs. The lower level needs must be satisfied before higher-order needs can influence behavior. Maslow’s hierarchy levels include Physiological, Safety, Belongingness, Esteem, and Self-actualization needs.

![Maslow’s Hierarchy of Needs Pyramid](image)

*Figure 1. Maslow’s Hierarchy of Needs Pyramid.*
According to Maslow, an individual is ready to act upon the growth needs if and only if the deficiency needs are attained. Thus, we cannot expect children to become self-actualized unless their basic needs are addressed. Those basic necessities include physiological needs, esteem, and belongingness. Self-actualized people are characterized by being problem-focused, incorporating an ongoing freshness of appreciation of life, having a concern about personal growth, and having the ability to have peak experiences. Applying Maslow’s Theory, schools and school districts should be focusing on the development and growth of children’s basic needs before they can expect them to succeed academically.

Piaget

The Common Core’s early childhood requirements, such as reading emergent texts in kindergarten, were criticized from the start as beyond the developmental ability of a significant portion of young children. In other words, teachers are forced to spend even more time on math and ELA with kindergarteners to learn these advanced skills. Not only is this counter to Maslow’s Hierarchy of Needs, but this is misaligned with Piaget’s Theory of Development as well, which is a staple for proper early childhood education (Cherry, 2018). Jean Piaget revolutionized the way educators, psychologists, and researchers view children’s learning and development (Beilin, 1992, as cited in Cohen & Waite-Stupiansky, 2017). Piaget’s Theory suggests that children move through four different stages of cognitive development. His theory focuses not only on understanding how children acquire knowledge but also on understanding the nature of intelligence. In Piaget’s view, early cognitive development involves processes based upon actions and later, progresses to changes in mental operations. Piaget’s Theory consists of four distinct
stages of development: Sensorimotor, Preoperational, Concrete Operational, and the Formal Operational Stage of Development.

Research conducted by Piaget and Inhelder (1969) and Piaget (1962) indicated that a positive self-concept and emotional development are fostered through play experiences that allow children to feel successful and capable. They also posited that self-esteem is nurtured through successful interactions with peers through play (Stegelin, Fite, & Wisneski, 2015).

<table>
<thead>
<tr>
<th>Stage</th>
<th>Age Range</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensorimotor</td>
<td>0-2 years</td>
<td>Coordination of senses with motor response, sensory curiosity about the world, Language used for demands and cataloguing; Object permanence developed</td>
</tr>
<tr>
<td>Preoperational</td>
<td>2-7 years</td>
<td>Symbolic thinking, use of proper syntax and grammar to express full concepts. Imagination and intuition are strong, but complex abstract thought still difficult. Conservation developed.</td>
</tr>
<tr>
<td>Concrete Operational</td>
<td>7-11 years</td>
<td>Concepts attached to concrete situations. Time, space, and quantity are understood and can be applied, but not as independent concepts</td>
</tr>
</tbody>
</table>

Figure 2. Piaget’s Stages of Cognitive Development

Cherry (2018) noted that it is important to understand that Piaget did not view children’s intellectual development as a quantitative process; that is, children do not just add more information and knowledge to their existing understanding as they get older. Instead, Piaget suggested that there is a qualitative change in how children think as they gradually process through these four stages (Cherry, 2018). Piaget theorized that play was necessary for the development of intelligence. According to his theory, learning takes place as a result of two reciprocal processes, assimilation and accommodation. With assimilation, children absorb information according to the psychological schemata, which they had previously fashioned from prior exposure to similar situations. Accommodation takes place when children have to modify their schemata to adapt to a new situation. For
example, children may have prior concepts as to how to catch a ball because they have
had the opportunity to have a large, soft ball tossed their way on quite a few occasions.
When challenged with a different type of ball thrown to them for the first time, they will
use their prior experiences as stored in their schemata to catch the ball. Considering there
is a difference in size, weight, speed, and trajectory of this new object, they will have to
adjust what they already know about catching a ball to fit the new situation. Piaget
upheld that intelligence is a result of a harmonious balance, which occurs between what
people already know, specifically, assimilation, and the changes they must make to suit
the new situation, namely, accommodation. When assimilation prevails over
accommodation, play occurs.

Piagetian theory for teachers is the importance of play for all areas of a child’s
development. Piaget contended that children learn different concepts when they play with
peers as compared to when they play with adults (Cohen & Waite-Stupiansky, 2017).
When children play with one another, they learn the concepts of reciprocity, social
behaviors, and autonomous reasoning when cooperation comes into play (Piaget,
are not rote learners, rather they are active constructors of knowledge. He believed that
learning is an active process. His ideas evolve as researchers and practitioners discover
more about the workings of the brain and its capacity for creative, adaptive functioning.
His theory is unmatched in its effect on early childhood education and the way that early
Cognitive Immaturity

Cognitive immaturity was defined by Bjorkland and Green (1992) as, “cognition characterizing the young children that was less proficient than that characterizing the adult.” They also stipulated that “adults have superior metacognition and process information faster than children.” Theories regarding cognition and learning, including that of cognitive immaturity, have reminded us that when children are not given ample time to take a break from sustained learning, they become bored and fidgety, and their attention to learning wanes. Research has indicated that after playing, the novelty of recess diminishes, and children are ready to learn in the classroom. The Cognitive Immaturity Theory (Bjorklund & Green, 1992; Pellegrini & Bjorklund, 1997) reminds us that children are more immature than adults thus they hold a shorter attention span and have a larger desire to play (Bjorklund & Green, 1992). This theory supports that children have much to gain from recess breaks that allow for distributing learning time in the classroom (Holmes, Pellegrini, & Schmidt, 2006). Recess, therefore, is a break utilized to separate the learning tasks during a school day and allows students to attend during classroom instruction for maximized learning.

Processing speed has been hypothesized to be related to age maturation and myelinization of associative areas of the brain and to experience (Bjorkland & Harnishfeger, 1990; Case, 1985, Dempster, 1985; Konner, 1991). Bjorkland and Harnishfeger (1990) proposed that “slower processing of poorly myelinated nerves affords younger children less time to process information (p. 61). Schools are remiss if they require young children to sit for long periods of time. Without an awareness of the immaturity of children’s metacognition and their inability to process information without breaks to reset their focus and recharge the processing portion of the brain, teachers will
be unable to meet the needs of all learners. Bjorkland and Green (1992) shared that less information in young children is processed automatically due to plasticity; that is, immature cognitive systems hinder young children’s ability to process information quickly and efficiently.

The Cognitive Immaturity Theory suggests that children, especially at the elementary age level, are not programmed to sustain their attention for long periods of time. Studies (Bjorkland & Green, 1992; Jarret, 2002; Pellegrini, 1988; Pellegrini & Bohn, 2005) have suggested that providing recess breaks for children throughout the school day offers them time to refocus and recharge and maximizes attention to learning. Breaks between learning supports the theory that children’s maturation is a development that unfolds in a natural progression as they grow, and pushing them to focus for long periods of time is a detriment to their acquisition of knowledge and unhealthy on so many levels.

Barros, Silver, and Stein, (2009) conducted a study to examine the amount of recess that 8- and 9-year-old children received in the United States. The researchers compared the group classroom behavior of children receiving daily recess with that of children not receiving daily recess.

This was a secondary analysis of a public-use dataset, the Early Childhood Longitudinal Study, Kindergarten Class of 1998–1999, third-grade dataset. Children were categorized into two levels of recess exposure. These included none/minimal break (less than one break of 15 minutes/day) or some recess. Some recess was further categorized into five levels on the basis of frequency and duration of recess. Child, parent, school, and classroom characteristics of those with and without recess were
compared. The group classroom behavior was assessed by using the teacher’s rating of class behavior.

Complete data were available for 10,301 to 11,624 children 8–9 years of age. There were equal numbers of boys and girls (boys: 50.3%). Children exposed to none/minimal break (30%) were much more likely to be from families with lower incomes and lower levels of education, to live in large cities, to be from the Northeast or South, and to attend public school compared to those with recess. The teachers’ rating of classroom behavior scores were better for children with some recess than for those with none/minimal break. This finding was maintained in multivariate regression analysis. Among children receiving daily recess, the teacher’s rating of class behavior scores did not differ significantly according to the level of exposure. Results also indicated that having more than one daily recess period, or at least one daily recess period of more than 15 minutes in length, was associated with better teacher’s rating of class behavior scores.

The research of Barros, Silver & Stein, (2009) indicated that recess may play an important role in the social development, learning, and health of children in elementary school.

The Role of Recess and Social/Emotional Development

How does interaction during recess relate to social development? Children learn and practice the skills necessary to interact with the world around them through their peers. During recess, peers provide the social and emotional support necessary to negotiate experiences. Pellegrini & Bohn (2005) stated:

A powerful indicator of social skills is the degree to which a child is popular with or rejected by his peers. Social concerns may become educational
concerns, and therefore, recess is an outlet for children to practice social competence and solve problems so that they are better able to focus once in the classroom.

According to Pellegrini and Glickman (1989):

Recess is one of the few times during the school day when children are free to exhibit a wide range of social competencies—sharing, cooperation, negative and passive language—in the context that they see meaningful. Only at recess does the playground become one of the few places where children can actually define and enforce meaningful social interaction during the day. Without recess, the children lose an important educational experience. (p. 24).

Recess provides a more “open setting” where children are free to leave the play situation. In open settings, children must learn to resolve conflicts to keep the game going, resulting in low levels of aggression on the playground (Jarrett, 2002).

As pressure has mounted on achieving high-test scores, focusing on children’s social growth has been pushed aside. Studies have shown that social learning is critical in more ways than intuition suggests. It isn’t surprising that integrating social (and emotional) learning within a curriculum leads to improvements in positive self-image, positive connections with school, reductions in discipline issues, and reductions in substance abuse (Taylor, Oberle, Durlak, & Weissberg, 2017). It makes sense that a child’s overall behavior and wellness would improve when he or she can navigate social issues from sharing to teamwork, collaborate with peers, practice conflict resolution, and manage within a group.
Pellegrini (1988) conducted a mixed methods study to explore whether rough-and-tumble play between parents and their preschool children was related to preschool children’s social competence at home and at school. Pellegrini’s present study aimed to expand upon this research by investigating whether rough-and-tumble was a distinct factor in a new context: play at home between parents and children.

Participants included 157 fathers, 157 mothers, and 56 teachers of 3- and 4-year-old children enrolled in 14 preschools and daycare centers in the suburbs of a large northeastern metropolis. Fathers’ ages ranged between 24 and 57 years old, while mother’s ages ranged between 22 and 49 years of age. Ethnicity of the parents was predominantly Caucasian (85.4% for father and 83.4% for mothers). More than 20% of all parent participants held a college degree. Only intact families with parents married and living together were included in the study. Teacher participants were from public and private schools, and the daycare centers were commercial enterprises (Pellegrini, 1988).

In Pellegrini’s study (1988) fathers and mothers were asked separately to complete a questionnaire by recalling over a 2-week period how often they played physically with their preschool children. The questionnaire was a checklist of 36 different physical play behaviors involving parent-child interactions compiled from several sources. Fathers and mothers were asked separately to complete the short form of the Ray Directiveness Scale (RDS; 1976). This is a personality scale cast as a behavioral inventory. Teachers were asked to evaluate preschool children’s social competence by completing the short form of The Social Competence and Behavior Evaluation (SCBE-30; LaFreniere & Dumas, 1996 as cited in Pellegrini, 1988). It is an instrument designed
to assess characteristic patterns of affective expression and regulation, adjustment
difficulties, and social competence of preschool children in interaction with peers and
adults. Fathers and mothers were asked separately to evaluate their children’s social
competence by completing the short form of the Preschool Socio Affective Profile (PSP;
LaFreniere, Dubeau, Capuano, & Janosz, 1990 as cited in Pellegrini, 1988).

Rough-and-tumble was relevant to both fathers and mothers. Pellegrini (1988)
sought to determine whether there were differences in frequency of occurrence that were
related to the sex of the parent and/or to the sex of the child for rough-and-tumble and
other kinds of physical play. The results, demonstrated by an ANOVA, indicated that
there were main effects for both sex of parent and sex of child on the incidence of rough-
and-tumble play. The conclusion was that fathers rough-and-tumbled more with sons than
daughters, as did mothers. The effect size for fathers’ differential treatment of the
children (.59) approximated that of mothers (.48). Mothers engaged in more playground
play than fathers, and fathers gave more rides than mothers. The effect sizes were .41
and .85, respectively. In conclusion, the findings disconfirmed that father-son rough-and-
tumble was associated with sons’ social competence and that father-son rough-and-
tumble made a greater contribution to sons’ social competence than other parent-child
play dyads and other aspects of physical play. Specifically, the results revealed that
father-son rough-and-tumble involving body contact was moderately correlated with
sons’ social competence, as rated by teachers. Rough-and-tumble with body contact was
also found to be linked to social competence for sons but not for daughters.

Healthy emotional development is essential for children, from setting the stage
for a purposeful life to creating healthy relationships to helping children succeed
academically in school. While instinctively we understand that attending to emotional growth is an earnest goal, the rise of high-stakes testing and mandated curricula through the recently established standards based school reform have made it near impossible for schools to be able to fully address this need.

So critical is this emotional growth that the National Scientific Council on the Developing Child considers it foundational. “It is essential that young children’s feelings get the same level of attention as their thinking” (National Scientific Council on the Developing Child, 2004). This is because proper brain development—which leads to optimal thinking skills—depends on the fostering of emotional growth:

When feelings are mismanaged, thinking can be impaired. Recent scientific advances have shown how the interrelated development of emotion and cognition relies on the emergence, maturation, and interconnection of complex neural circuits in multiple areas of the brain, including the prefrontal cortex, limbic cortex, basal forebrain, amygdala, hypothalamus, and brainstem. (National Scientific Council on the Developing Child, 2004, p. 2).

Even more, emotional health is critical to developing strong executive functioning skills, like creating, planning, and managing. The neural circuits that are involved in the regulation of emotion are highly interactive with those that are associated with “executive functions.” In terms of basic brain functioning, emotions support executive functions when they are well regulated, but interfere with attention and decision-making when they are poorly controlled. (National Scientific Council on the Developing Child, 2004, p. 2).
High-stakes testing pressure and heavy emphasis on the tested subjects not only interfere with creating a healthy groundwork for emotional development, but they also exacerbate the situation by causing excessive stress. Districts across the country have seen unacceptable increases in childhood mental-health related hospitalizations, use of stress-related medications, and other behaviors linked to too much stress.

An added bonus to this healthy sense of being, though, is that academic achievement also improves significantly. A recent study involving almost 100,000 students concluded that children who had the benefit of curriculums with social and emotional learning opportunities placed well over 10 percentage points academically above their non-trained peers (Taylor et al., 2017). Atlanta Public Schools Chief Dr. Meria Carstarphen recently said, “I’m convinced that if every student in the U.S. had a high-quality SEL [social and emotional learning] program, the United States would be at the top of the education rankings” (as quoted in Clayton, 2017).

A study by Abel, et al (2015) of several hundred thousand students concluded that students exposed to this training also “showed improved classroom behavior, an increased ability to manage stress and depression, and better attitudes about themselves, others, and school” (Aber, et al., 2015). According to a 2015 report by the American Enterprise Institute and the Brookings Institution:

Despite their importance to education, employment, and family life, the major educational and school reforms of the K–12 system over the last few decades have not focused sufficiently on the socio-emotional factors that are crucial to learning. Though most teachers believe that schools have a
fundamental responsibility to educate the whole child, education policy has focused disproportionately on high-stakes accountability strategies based on results from standardized academic achievement tests. We believe that the education gap can’t be closed unless and until schools commit to and become skilled at educating the whole child (Abel et al., 2015).

According to the Society for Research in Policy Development Report (2012), “Few school-based researchers will disagree with the notion that social, emotional, and academic skills are interdependent in nature, collectively important as students negotiate the multiple demands of educational settings.” The report also stated, “students need to develop the skills necessary to meet academic task demands, negotiate relationships with teachers and peers, and be self-determined in their learning” (Jones & Bouffard, 2012, as quoted in the Research in Policy Report, 2012).

There is a critical health crisis happening among members of the youngest generation of Americans, with critical implications for the country’s future (Snow & McFadden, 2017). The Centers for Disease Control and Prevention (2017) reported that one in five American children ages 3 through 17—about 15 million—have a diagnosable mental, emotional, or behavioral disorder in a given year. With childhood and adolescent mental health disorders on the rise, it is essential that we offer assistance, support, guidance, and education to students while in school. Depression, anxiety, and trauma wear masks that can look much like defiance; anxiety and depression can also present as withdrawal, or like a child has checked out. Mental health issues therefore impose themselves into classroom productivity and behavior. Children with anxiety often have difficulty concentrating, and they may
display behavior that is misinterpreted as signs of attention-deficit or other disorders (Collins, 2018).

**The Role of Recess and Physical Development**

Recent mandates in education have resulted in many school districts decreasing recess time and increasing instructional time (Jarrett, 2019). With benefits including social and emotional growth and development, research has indicated that recess is an important part of a child’s day. According to a report by the National Disease Control (2013), “Integrating physical activity within classrooms as part of planned lessons that teach mathematics, language arts, social studies, and other academic subjects through movement can increase students’ overall physical activity and improve time-on-task and attentiveness.” Children’s immature cognitions cannot withstand the demands of long periods of sustained instruction. As the emphasis on attaining high scores in math and English language arts grows, the reaction has been to increase classroom time, on the assumption that more time spent on the subjects will correlate with better performance. All too often, that extra classroom time comes from recess time or from physical education time. School recess, or play-time, offers children invaluable opportunities to interact with their peers, thus strengthening their social skills. It also offers them time to reflect on their own feelings, fears, and inhibitions, developing their emotional growth. Through recess, children gain pragmatic language skills and learn how to get along with others, problem solve, and become part of a community.

Research repeatedly has supported that increasing physical fitness opportunities for children leads not only to improved physical health but also to increased academic growth. The Center for Disease Control (CDC) stated, “There is substantial evidence
that physical activity can help improve academic achievement, including grades and 
standardized test scores” (Center for Disease Control 2017). The CDC further noted 
that physical activity “enhances concentration and attention as well as improves 
classroom behavior” and that “even simply incorporating physical activity breaks 
during class increases student performance” (CDC, 2017, page 7). At the same time, 
the childhood obesity problem in the United States has continued to grow, cited as 
parents’ number one health concern by the American Heart Association (Lakshman, 

Owen, Parker, Astell-Burt, and Lonsdale (2018) conducted a study on adolescent students 
in the Australian secondary school education system. The purpose of this study was to determine 
whether physical activity has a positive relationship with school engagement regardless of the 
presence or absence of a recess or lunch break before the classroom lesson. They postulated that 
students who are actively engaged with school are healthier than those who are less engaged and 
that students who are engaged in their learning are more likely to perform well academically. 
Accelerometers assessed physical activity to determine whether it had a positive relationship 
with school engagement regardless of the presence or absence of a recess or lunch break before 
the classroom lessons.

A university Human Research Ethics Committee and Department of Education 
research application process granted approval for this study (Owen, Parker, Astell-Burt, 
and Lonsdale, 2018). Data were collected at three time points: January–April 2014, 
October–December 2014, and April–June 2015 of the Australian secondary school 
education system. A cohort of 2,194 adolescents (mean age = 13.40 years, SD = .73) 
wore an accelerometer during the hour before a mathematics lesson and completed a
questionnaire following the mathematics lesson to assess school engagement in that lesson. Student participants were from 14 secondary schools located in the western Sydney region of Australia.

In their study, Owen, Parker, Astell-Burt, and Lonsdale (2018) noted that physical activity during the hour before a mathematics lesson was assessed as the critical effects of physical activity tend to last one hour. Possible periods before mathematics included recess breaks, lunch breaks, classroom lessons, and physical education lessons. Recess breaks ranged from 20 to 30 minutes, and lunch breaks ranged from 40 to 60 minutes. Multilevel regression models were used to determine whether physical activity predicted mathematics engagement during the mathematics lesson regardless of the presence or absence of a recess or lunch break before the classroom lesson.

Owen et al (2018) found that during the hour before mathematics, student participants spent the majority of their time sedentary (mean = 48.17 min) and a small amount of time participating in moderate (mean = 2.81 min) or vigorous activity (mean = 1.66 min). The results indicated that moderate activity had a positive relationship with cognitive engagement. Owen, Parker, Astell-Burt, and Lonsdale (2018) discussed that the majority of previous studies have found that recess or lunch breaks from classroom lessons improved behavioral engagement while integrating physical activity into classroom lessons improved emotional engagement. Results from this study suggested that promoting activity could provide benefits for cognitive mathematics engagement.

Recess allows children to develop the 21st century skills that are so often discussed in the education world: communication, critical thinking, collaboration, and
creativity. These skills are best learned and refined not in a classroom exercise but rather on the playground. Children learn problem solving and collaboration when they figure out how to share a space or decide how to choose who participates in a game. The playground is its own microcosm where children are the governors and citizens who learn to play in their world together with goals of kindness and support.

In his book *Addicted to Reform*, John Merrow (2017) pointed out that 9 of ten CEOs stated that the most important skills and attributes for their employees are work ethic, teamwork, decision making, critical thinking, and computer literacy. What has been dismissed over the years as soft skills are actually most important when educating children; research has shown that those soft skills are learned during free play and recess times in school.

Physical activity is associated with numerous academic and health benefits. According to a study entitled Impacting Children’s Health and Academic Performance through Comprehensive School Physical Activity Programming conducted by Brusseau and Hannon (2015), schools have been identified as an ideal location to promote physical activity as most youth attend school regularly from ages 5–18. Due to recent decreases in recess across schools in the United States in an effort to increase instruction time, schools have not been able to offer students ample time for physical activity. Before and after school programs provide opportunities to promote physical activity by teaching the skills needed for a lifetime of activity (Trost, Rosenkranz, & Dzewaltowski, 2008 as cited in Brusseau & Hannon, 2015). The CDC (2010) suggested that before and after school programs offer children the ability to practice what they have learned in physical education; work toward the nationally recommended 60 minutes of daily physical
activity; become more adequately prepared for learning; engage in safe, social, and supervised activities; and identify activities that they enjoy and might engage in long term. Numerous scholars have identified the ability of before and after school programming to increase youth physical activity and decrease the number of overweight children (Salcedo Aguilar et al., 2010 as cited in Brusseau & Hannon, 2015).

Brusseau and Hannon (2015) also stated that the Center for Disease Control (2013) recommend, “Before and after school physical activity programs offer students an opportunity to be physically active. These programs may include a walking and biking to school program clubs and intramural programs and informal free play on school grounds.” In its report, the CDC (2013) also stated:

The main ways students can participate in physical activity during the school day are recess, and physical activity integrated into lessons or classroom activity breaks. These opportunities can be offered to all grade levels. Schools can facilitate increased physical activity during the school day by encouraging students to be active; providing students with space, facilities, equipment and supplies that make participating in activity appealing; and providing organized times and structured physical activities for interested students.

Research has indicated that substantial time for recess rights the wrong of reducing children’s physical activity that high-pressure testing has caused. According to a recent Harvard University poll (2013):

Currently, less than half of youths meet the U.S. Department of Health and Human Services’ Physical Activity Guidelines for Americans recommendation of at least 60 minutes of daily moderate-to-vigorous physical activity. This increases youths’
health risks and can jeopardize their well-being throughout their lives. Physical activity is also critical to children’s cognitive development and academic success.

According to this research, it appears that not offering children substantial time for recess during the school day is unhealthy on too many levels.

**Recess and Classroom Behaviors**

In a longitudinal study conducted by Pellegrini and Bohn (2005), the authors suggested that recess periods serve a positive purpose in the school curriculum as opposed to the current practice of curtailing recess to increase instructional time in the classroom. To illustrate the role of recess, Pellegrini and Bohn (2005) highlighted findings from a series of field experiments conducted in a public elementary school. They cited Pellegrini and Smith (1993) and Pellegrini, Huberty & Jones (1995) whereby in all of the experiments, recess timing was manipulated, as was timing of students’ seatwork before recess. In the study conducted by Pellegrini and Bohn (2005) on randomly assigned days, students went to recess at 10:00 in the morning for a short time period or at 10:30 in the morning for a longer recess break. Before and after recess, children’s attention to classroom tasks were coded. The authors shared that in three of the four experiments conducted by Pellegrini et al. (1995), they had also experimentally controlled the tasks on which children worked before and after recess. The results indicated that in each of these experimental studies, children were more attentive after rather than before recess. Additionally, children were less attentive during the longer recess periods than the shorter, which supports the supposition by Stevenson and Lee (1990, as cited in Pellgrini & Bohn, 2005) that children are less attentive during long work periods.
In one of the Pellegrini et al. (1995) experiments, recess periods were indoors. The researchers wanted to study the effects of indoor recess on children’s attention to learning. The result from the indoor experiment replicated the findings of the outdoor experiment; therefore, children were more attentive after a period of indoor recess in the same way they were attentive after an outdoor recess period. These experiments supported the notion that providing breaks for children over the course of instructional time facilitates children’s attention to learning and increases classroom tasks. Pellegrini and Bohn (2005) stated “that these results were obtained through well controlled field experiments” and were replicated “across a number of studies,” which instills confidence in the researchers that the findings are reliable and valid. To add to this supposition, Pellegrini and Bjorkland (1997) argued that by giving children frequent breaks during and between highly focused cognitive and academic tasks, their performance on later tasks should be enhanced relative to children who are not given such breaks. Pellegrini and Bjorkland (1997) also stated:

Performance on repeated tasks requiring focused attention decreases over time and trials, until rest periods are given. Rest periods in the form of recess enhances subsequent performance, although the nature of the recess activity may affect the extent of the subsequent benefits.

A quantitative study conducted by Stapp and Karr (2018) examined the effect of recess on fifth-grade students’ time on-task in an elementary classroom. The authors shared the fact that The Center on Education Policy (2008) examined the impact of the No Child Left Behind (NCLB) Act on recess and found that 20% of school districts decreased recess time, with an average decrease of 50 minutes per week (Center on
Education Policy, 2008 as cited in Stapp & Karr, 2018). According to Stapp and Karr (2018) the rationale for this reduction for recess was to allocate more time for English and math instruction. Stapp and Karr (2018) suggested that studies have shown that short, structured breaks throughout the school day can improve physical activity levels, academic achievement, and concentration (Barr-Anderson et al., 2011 as cited in Stapp & Karr, 2018).

The study by Stapp & Carr (2018) was conducted in a fifth-grade general education classroom in Northwest Mississippi. Student participants were selected through non-probability purposive sampling and included six female students and six male students, ages 10–12. Ethnicities of the participants were 66.7% Caucasian, 25% African American, and 8.3% biracial.

In this study (Stapp & Karr, 2018), an on-task and off-task frequency chart was utilized to document observations of participants’ on- and/or off-task behaviors in the classroom prior to and following a 25-minute recess period. The Whole Interval Recording (WIR) protocol was utilized within the on- and off-task frequency chart to collect data. Twelve observations were completed over a 6-week period from September 12, 2016–October 19, 2016 on Mondays and Wednesdays for 30 minutes during the morning. The observations took place prior to recess in a fifth-grade classroom and after recess in the school library or with the art teacher in the regular academic classroom. Observations were divided into 5-minute intervals, wherein each 5-minute time interval included two codes that represented on-task or off-task behaviors. These behaviors were documented during the 5-minute time intervals for each participant. During each observational period, the code that correlated with the participants’ behavior for each 5-
minute interval was circled. The code was determined by analyzing the behavior that was exhibited a majority of the 5-minute time interval. Upon final data collection, descriptive and inferential statistics were utilized to summarize the datasets.

Stapp & Karr’s (2018) findings indicated that including recess in a school day’s allocated time schedule actually increases time on-task. Results revealed that each of the 12 participants’ average time on-task increased from before recess to after recess. The student with the greatest increase in time on-task, increased from 20.8% time on-task prior to recess to 60.4% time on-task after recess. During the 30-minute period following recess, 100% of the participants spent more time on-task than off-task.

Similar to results of previous quantitative studies (Jarrett, 2002; Pellegrini & Bohn, 2005), Stapp & Karr (2018) supported the theory that short breaks, which include physical activity during the school day, enable students to remain on-task for longer periods of time.

Jarrett, Dickerson, Hoge, Davies, and Yetley (1998) conducted a study that was centered on the theory that children need breaks between sustained instruction in order for them to be less fidgety and listless during instructional time and more focused on task. The purpose of this research was to examine the effect of a recess break on the “on task” behavior and fidgety and listless behaviors in fourth-grade children. Children were observed during their normal school routines and did not ordinarily have recess breaks. Therefore, they had not adapted to recess breaks prior to the study.

This study by Jarrett, Dickerson, Hoge, Davies, and Yetley (1998) was conducted in a large urban school system. The researchers were given permission by the district to
have 15–20-minute recess periods once a week. This allowed children’s behaviors on recess and non-recess days to be observed and compared.

The participants (Jarrett et al, 1998) were students from two fourth-grade classes each having 25 to 30 students. The participants were 43 children, 18 boys and 25 girls. Thirty-four of the participants from the school’s neighborhood were Caucasian, two were African American, and one Caucasian child and six African American children were from transient housing. Five students had been identified as children with Attention Deficit Disorder.

Jarrett, Dickerson, Hoge, Davies, and Yetley (1998) began data collection in mid-November and continued until both classes randomly attended recess six times. Coding was used to record three behaviors: W (work) on task behavior, F (fidgety) excessive movement, and L (listless) head on desk and/or slumped body.

The post recess data for both classes were combined (Jarrett et al, 1998). Their observed post recess behaviors on recess and non-recess days were compared with a repeated-measures MANOVA. The effect of recess was highly significant, F (3, 40) = 13.00, p < .001. Subsequent univariate analyses showed that children worked more F (1,42) = 10.02, p = .003 and were less fidgety, F (1, 42) = 31.36, p < .001, when they had recess. Without recess, the students were on task 85% of the time and fidgety 16% of the time. With recess, they were on task 90% of the time and fidgety 7% of the time. They did not differ on listless behavior. The effect of recess in making children more on task and less fidgety supports the view that most children need a break in between sustained instruction.
Play and Pedagogy

Hyvonen (2011) conducted a study entitled “Play in the School Context? The Perspectives of Finnish Teachers.” Hyvonen posited that playful learning environments have been constructed in schoolyards in Finland with the goal to increase learning through play in curriculum-based education. In order to better understand and inform this development, Hyvonen set out to ascertain how teachers view and use play in kindergarten and elementary education.

The purpose of this study by Hyvonen (2011) was to identify the different play types that were practiced in the school context at kindergarten and elementary levels in Finland, to analyze teachers’ roles in relation to those play types, and to characterize and define “playful teaching.”

Given the emphasis on teachers’ views and perceptions of play, a qualitative approach was used to conduct this study (Hyvonen, 2011). Data were collected through in-depth interviews and analyzed using the Straussian method of grounded theory (GT; Strauss & Corbin, 1998 as cited in Hyvonen, 2011). The goal was to require teachers to reflect more deeply on their pedagogical thoughts and practices regarding play.

The Hyvonen (2011) was conducted at the kindergarten and elementary levels (ages 6 to 10 years) in the cities of Ouly and Rovaniemi in northern Finland. Kindergarten teachers and classroom teachers ages 25 to 53 years and teaching kindergarten through fourth grade (N = 14, four males and 10 females) were interviewed about their practices and expectations in regard to play. Participants were volunteers who agreed to take part in the study conducted by Hyvonen (2011).

Teachers were informed that their views would be used to build a better understanding of play in a learning context and for designing playful learning for outdoor
learning environments, which were titled as “playful learning environments” (PLE). Teachers were asked to give examples and descriptions of play situations. Interviews took between 40 minutes and 2 hours. Interviews were recorded and transcribed by Hyvonen. Categories were saturated when concepts had emerged, and there were no gaps remaining in the information Hyvonen, 2011).

Results (Hyvonen, 2011) indicated that teachers are generally critical of circumstances that inhibit playing. These were generally related to the learning environment and heavy curriculum that needed to be taught. Eight different play types were distinguished. The study concluded that the teachers interviewed use various play types in their educational settings. Seven of the 14 use play as a daily routine, while the other teachers used it frequently but not daily. Hyvonen (2011) concluded that teacher education should develop teachers’ pedagogical thinking through the theoretical understanding of play and learning as well as through the modeling of play and playful teaching within teacher education.

Implications of this study (Hyvonen, 2011) relate to teacher pedagogy where play is concerned. Knowing and understanding the importance of play is not sufficient to expect teachers to believe in the practice. When the implementation of a new initiative, such as recess breaks, enhances teacher practice, there is a higher likelihood that they will integrate the practice with fidelity. It is important to listen to the perceived implications that recess has on instructional practices or, rather, the effect that curriculum has on a teacher’s ability or willingness to afford ample time for recess and play opportunities.

Recent research in the field of educational philosophy has emphasized the need to reassess many of the assumptions that support the role of the school, the teacher, and
education in general. In an article by Lovat, Dally, Clement, and Toomey (2011), the researchers explored the findings of values pedagogy, both Australian and international, and claimed the need to reconsider many of the assumptions and theories that fortify teacher education. Research findings that focus on the relationships between cognition and emotion to be found in the psychological (Ainley, 2006; Brackett et al., 2010; Ryan, 2007 as cited in Lovat et al., 2011) and neurobiological sciences are causing educators to rethink many of their assumptions regarding learning. The notion that cognitive learning outcomes are separate from social ones is considered insufficient. Lovat et al. (2011) suggested:

The idea that learning can be achieved through mastery instruction and testing, without reference to the physical, emotional and social ambience within which the learning is occurring, nor moreover to the levels of confidence and self-esteem of the learner, is similarly seen as potentially an obstruction rather than facilitation of learning. Such findings point to the need for pedagogy that engages the whole person rather than a “separably cognitive” person. In a word, the need is for holistic education.

In the USA, educational priorities have been formed around improving academic performance while problems of behavior have been intensified at the same time that academic performance has stalled. Lovat et al. (2011) explored the work of Dasoo (2010), who reported on a South African program designed to instill values pedagogies in teachers and enhanced self-esteem and wellbeing on the part of teachers as they experienced the students’ improved learning responses shaped by the pedagogies. Lovat, Dally, Clement, and Toomey (2011), also discussed the work of Osterman (2010) who
offered further evidence of these joint effects in showing that the teacher is the one who provides quality content in the context of effective pedagogy and establishes positive, values-rich relationships with students. Osterman (2010) cited results of a study that showed positive, value-rich relationships with students to be an inherent feature of teachers achieving optimal results. Lovat et al. (2011) brought to light that there is a need to redefine teacher education in an effort to establish educators who are well-versed in the need to transform education and educational pedagogy rather than function on the basis of an “old order” of beliefs and priorities. Currently, teacher education tends to rely on dated paradigms of teaching and learning. The effects of new paradigms may genuinely come as a surprise to those embedded in its culture. Understanding matters of human development and socialization is an ongoing enterprise. Lovat et al. (2011) also posited that “one of the problems for teacher education could be that the basis of its ‘foundations’ has rested for too long on theories and research that relied on the kinds of rationalism and separable cognition theories that have been under challenge for a considerable period of time.” Finally, Lovat et al. (2011) argued that “teacher education tends to be conservative and reactive, rather than pro-active, and that it has been heavily dominated by paradigms of thought that educational and other research and many classroom practices are overturning.” Findings from this research point to values pedagogy possessing especially strong credentials in facilitating holistic education. Yet, teacher education remains for the most part blind to and unaffected by such pedagogies and that this, in turn, influences negatively on its potential to produce the kinds of teachers needed to fulfill and realize the need for play and recess, socialization, and emotional development within.
Recess Breaks and Leadership

In focusing on shifting the paradigm in American education away from diminishing recess and instead considering it a value to the education of our children, we must take into consideration the fact that leadership matters.

The origins of leadership and its study have roots from the beginning of civilization. However, the organizational focus of a “leader” has evolved over time. At the core of most definitions of leadership are two functions: providing direction and exercising influence. Effective educational leaders develop the human capital within their organizations and enable schools to function as professional learning environments.

Educators have long heard that school leadership makes a difference. In a review of research regarding how leadership influences student learning, the Wallace Foundation (Leithwood, & Levin, 2010) reported that instructional leadership was one of many defining characteristics of successful schools. Since the early 1970s, many experienced scholars and practitioners have offered theories and anecdotes regarding instructional leadership (Leithwood, & Levin, 2010). None of this advice for leaders was derived from an analysis of a large sample of quantitative data. It remained largely theoretical and failed to provide school leaders with practical guidance for becoming an effective leader (Waters, Marzano, & McNulty, 2003).

School districts need leaders who can motivate, organize, and manage and who understand the responsibilities that are essential for implementing an innovative approach to education. As agents of change, leaders need to decipher the culture to facilitate a change program that the organization has launched to solve a problem. In his book *Organizational Culture and Leadership*, Schein & Schein (2017) posited that the
researcher as a change agent should be deeply involved with the organization being studied. They also stipulated that leading change involves the shifting of assumptions and that complete change may take several years to come to fruition. “Though it is human nature to be resistant to change,” stated Schein & Schein (2017), “two crucial principles must come into play.” These principals include survival and learning anxiety:

- Survival anxiety and guilt must be greater than learning anxiety. That is, from the change leader’s point of view, it might seem obvious that the way to motivate learning is simply to increase the survival anxiety or guilt. The problem with that approach is that the greater threat or guilt may simply increase defensiveness to avoid threat or pain of the learning process. With more forces operating the whole system, the overall tension in the system increases, leading to more unpredictable and undesirable resistance to change. (p. 327).

- Learning anxiety must be reduced rather than increasing survival anxiety. The change leader must reduce learning anxiety by increasing the learner’s sense of psychological safety and reducing external barriers to change. Figuring out how to do this and having the consulting and helping skills to turn the change target into a client now becomes the most difficult phase of the change process. The involvement of the change target in the change process has now become critical. (p. 328).

Change in one part of a system or culture impacts all other parts. Most change is unsuccessful because the conditions outlined in preparation for the change are not clearly communicated, and the members of the organization may not be prepared for full transformation. For leaders to serve as change agents, they must set out to transform the
culture within the organization by creating psychological safety for all members, and that is when significant cultural changes can be achieved (Schein & Schein, 2017).

There are many fundamental principles of effective leadership. These principles represent the internalization of correct values upon which success is based. Differences are evident between an ordinary leader and an effective leader, one who makes a difference and assists in helping others to make a difference. This is the essence of what is needed in our educational system today in order to optimize our students’ learning, assist them in their choices, and, ultimately, maximize their outcomes. Education is an extremely complex system, and so is school leadership, but if administrators work towards defining the problems and implementing viable solutions while understanding what the most effective leaders do, then insight can be gained into how to continue to grow our own skills. The most effective leaders all have one thing in common: “no matter how good they are, they are always looking to improve” (DuPree, 1989).

Effective leaders know which policies, practices, resources, and incentives to align with organizational priorities. They know when, how, and why to create learning environments that support people, connect them with one another, and provide knowledge, skills, and resources that are needed to succeed. This combination of knowledge and skills is the essence of balanced leadership (Waters et. al., 2003). So much has been written about efficiency, effectiveness, and effective leadership. One belief strong leaders must bear in mind is that “efficiency is doing things right, but effectiveness is doing the right thing” (DuPree, 1989, p. 35). A strong teacher of teachers must create a fine balance between these two strategies in order to lead their organization to success.
The contemporary view of high-quality leadership is associated with systemic forces, empowerment, transformation, collective learning, and community. School leadership no longer refers to officially designated positions but rather a collective construct that may be distributed among teachers and support staff through the cultivation of relationships and networks. Schools are more likely to show student growth and achievement when leadership is distributed throughout the school and community, and when teachers are supported and encouraged and empowered by their leaders to draw upon their expertise (Jacobson, 2010). Capacity building within a school is defined as, “Creating the conditions, opportunities, and experiences for collaboration and mutual learning” (Jacobson, 2010, p. 35). School leaders cultivate greater capacity by providing high-quality professional development that allows teachers to engage in collective explorations of diverse approaches to teaching and learning. They offer training suitable for the enhancement of teaching techniques and find suitable conditions in order to assist in high quality teaching and learning (Kawar, 2012).

There are many practices in successful leadership. High quality leaders set shared goals where people are more motivated to apply such goals in their work and promote a sense of parity and organizational identity. The success of student learning depends on the motivation of teachers and administrators. Successful leaders develop their organizations in such a way as to strengthen as well as modify organizational structures in order to facilitate the work of teachers and administrators. Leadership works on shaping the teaching institution in setting goals and standards for learning, promoting clear outcomes for learning, and creating forums for pedagogy aligned to student success (Kawar, 2012).
A study conducted by Armistead (2010) found that teachers in high performing schools reported high levels of instructional climate, defined as, “the steps that principals take to set a tone or culture in the building that supports continual professional learning” (p. 5). The study looked at 43 school districts in nine states. It studied leadership both at the school and district levels. In approximately 18 schools in these 43 districts, researchers used surveys and interviews with principals, teachers, other staff members, district personnel, school board members, community leaders, and state-level leaders to collect data. Principals whose teachers rated them high on the instructional climate emphasized the value of research-based strategies and are better able to apply them in their own setting. By focusing on the goals for student achievement, keeping track of teachers’ professional development needs, and creating structures and opportunities for teachers to collaborate, significant contributions were made to teachers’ classroom practices by the principal and, ultimately, to student growth and achievement (Armistead, 2010). In reviewing the literature, it is safe to conclude that principal leadership behaviors and principal effectiveness do not function in isolation of one another but, instead, work together in tandem, impacting student achievement in a positive manner (Soehner & Ryan, 2010).

Transformational leadership is defined as a leadership approach that causes change in individuals and social systems. Transformational leadership is comprised of four behavioral components or dimensions: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration (Bass & Bass, 2009). Idealized influence is the level of social identification that leaders create among their followers resulting in the desire to closely identify with each person (Oke, Adegoke, Munshi, &
Walumbwa, 2008). Increases in idealized influence can result from leaders sharing risk, cultivating trust and respect, and engaging in self-sacrificing behavior (Bass & Riggio, 2006; Oke et al., 2008). With a change in educational paradigm, leaders must be prepared to foster trusting relationships with all stakeholders within their organization and support educators in taking the necessary risks in order to change the dynamic of their practice. Transformational leaders can use visions to clarify objectives and refocus the direction of their organization. They can influence educators in finding innovative and creative ways of accomplishing tasks, inclusive of shifting their practice to a more constructive approach to teaching and learning (Shadraconis, 2013).

In our current climate of data-driven school assessment, school administrators are held accountable for student performance on standardized measures of academic achievement (Ward, 2013). If schools and school districts choose to make a paradigm shift, they must employ visionary or transformational leaders who are able to create change, assist others in its adaptation, and remain relevant to achieve long-term success and sustainability. By adopting a model of leadership that addresses the needs of their fluctuating environment, transformational leaders provide individualized consideration for followers, supporting development and achievement through coaching and mentoring (Bass & Riggio, 2006).

Sustainable school reform efforts move schools closer to ensuring the success of every child. The success of any shift in educational paradigm hinges on the style and efficacy of the school and district leaders (Saxe, 2011). Leadership is a concept that plays a vital role in the implementation of new educational shifts. Leaders must influence and
support educators in changing their instruction and mindset in order for educational organizations to work collaboratively and cohesively in the best interests of the students.

**Conceptual Framework**

The conceptual framework for this study explores the relationships among recess and children’s social/emotional development, classroom behaviors, and teacher pedagogy. The assumption is that recess breaks have a positive impact on children’s social skills and emotional well-being. This supposition is made by looking at the research on recess and social/emotional development. If recess is central to children’s social/emotional development and influences their classroom behaviors, it must affect teacher pedagogy as well.

*Figure 3. Visual schematic of conceptual framework.*
Summary

The mandates of the Common Core Learning Standards (and now the newly adopted Next Generation Learning Standards in New York), enforced by high-stakes tests, have led to dramatic changes in our classrooms.

Not only does recess offer children the social and emotional growth and development opportunities they so need and desire, it also turns out that moving our muscles produces proteins that actually travel through the bloodstream and into the brain where they play pivotal roles in the mechanisms of our highest thought processes (Ratey, 2013). With multiple growth opportunities for all children, and with the use of instructional practices that are not aligned to specific state standards we understand that a child's growth, via recess, is just as important as academic teaching, and in fact is integral to maximizing academic success and improving student health. When physical activity through play is relegated to being just a disposable, non-essential filler, our children suffer. Brain research on attention (Ratey, 2013) has suggested that recess breaks are essential. It has indicated that the brain cannot maintain attention for long periods of time and requires new locations and activities for the brain to refocus. Research (Ratey, 2013) also has stated that down time is necessary for the brain to process information and to recycle chemicals in the brain for long-term memory formation. Lastly, attention is cyclical, involving various rhythmical patterns throughout the day (Jensen, 2005).

Research (Ratey, 2013) has indicated that play and recess are vital in transformative and empowering experiences that shape the lives of children, and education becomes more than merely learning new facts or skills (Stegelin, Fite, & Wisnecki, 2015).
Over the years, American education has endured recurring curriculum transformation. Major modifications have occurred across the elementary curriculum. Since the beginning of formal schooling in America, multiple points of view have existed on curriculum design and best practice. No Child Left Behind (2001) prompted districts to analyze literacy and numeracy gaps to determine school success. American education is not focused on the overall health and well-being of students.

In looking forward to the future of American education, school districts cannot just teach academics; they must teach the value of knowing where and how to find resources and assist in strengthening a multitude of skills in children. These skills include problem solving, communicating, collaborating, and divergent thinking. This can be achieved by school districts employing visionary leaders who are willing to shift the educational paradigm and offer all students physical, emotional, academic, and social development opportunities so that our next generation will be better suited to become successful citizens in a global society.
CHAPTER THREE
METHODOLOGY

The following chapter outline explains the methodology and methods used for this research study. The purpose of this exploratory case study was to understand the impact of recess on children’s social/emotional development and classroom behaviors, specifically whether a recess break improves or disrupts on task behaviors. This study also explores how the implementation of recess breaks throughout the day affects teachers’ pedagogy.

The following research questions guided this study:

- **Research question 1:** How does recess affect children’s classroom behaviors?
- **Research question 2:** What are teachers’ perceptions of recess breaks on children’s social/emotional development?
- **Research question 3:** How does the implementation of recess periods between sustained instruction impact teachers’ pedagogy and practice?

**Rationale for Research Approach**

Factors considered in this study include recess time(s) of day, duration of recess, social/emotional and physical development and classroom behaviors as they relate to recess, and the influence that recess breaks have on teachers’ pedagogy. According to Creswell (2009), case study research “involves the study of an issue explored through one or more cases within a bounded system.” Creswell (2009) also posited:

Case study research is a qualitative approach in which the investigator explores a bounded system (a case) or multiple bounded systems (cases) over time, through detailed, in-depth data collection involving multiple sources of information (e.g.,
observations, interviews, audiovisual material, and documents and reports), and reports a case description and case-based themes. For example, several programs (a multi-site study) or a single program (a within-site study) may be selected for study (p. 73).

According to Creswell, qualitative research “is an inquiry process of understanding a social or human problem, based on building a complex, holistic picture, formed with words, reporting detailed views of informants, and conducted in a natural setting” (Creswell, 1998 pp. 1–2).

Yin (1984) defined the case study research method “as an empirical inquiry that investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used.” Yin (2018) described five components that are essential to case study design. These components include the case study questions, propositions, the actual case, the logic linking the data to the propositions, and the criteria for interpreting the findings. He stated that case study research questions are most appropriate when a researcher wants the answers to “how” and “why” questions. Yin directed extra attention to the fourth and fifth components, which refer to the planning for the data analysis steps in case study method. In relation to these components, Yin emphasized the necessity that researchers review the relevant literature and include theoretical propositions regarding the case under study before starting to conduct any data collection, which distinguishes it from such methodologies as grounded theory and ethnography. Defining design essentially as “the logical sequence that connects the empirical data to a study’s initial research questions and, ultimately, to its conclusions”
(p. 20). Yin (2002) suggested four types of design that case study researchers can use. These designs include single holistic design, single embedded design, multiple holistic design, and multiple embedded design. Holistic designs require one unit of analysis, whereas embedded designs require multiple units of analysis. Yin placed considerable emphasis on preparation of a detailed design at the outset of the research and advised that investigators make minor changes in the design after they begin data collection. From a Yinian perspective, case study research should rest upon multiple sources of evidence, with data needing to converge in a triangulating fashion, and benefit from prior development of theoretical propositions to guide data analysis and collection (Yazan, 2015). Bogdan and Biklen (2007) described case study design as one which allows the researcher “to collect data, review and explore them, and make decisions about where to go with the study,” and “from broad exploratory beginnings, they move to more directed data collection and analysis” (p. 59). This case study design begins with a general survey of teachers’ perceptions of recess. It is from that survey that the semi-structured interview questions were created and refined to develop a clear focus for the research approach and data collection. “Qualitative researchers tend to collect data in the field at the site where participants are experiencing the issue under study” (Creswell, 2009, p. 185). In this case study, students were observed in various locations in and around the school during recess breaks. These areas included the Discovery Center, a classroom with rubber floor mats and materials used for children to play, build, and create innovative structures; a courtyard; a large field; a large gym; and a small gym. The researcher took field notes to describe the behaviors and conversations among children during recess. Field notes allow the researcher to maintain and comment upon
impressions, environmental contexts, behaviors, and nonverbal cues that may not be adequately captured through the audio-recording or through the interview process. Gay, Airasian, and Mills (2014) described case studies as particularistic, descriptive, and heuristic. A particularistic case study is one that “is focused on a particular phenomenon, such as a situation or event.” A case study researcher may choose a particular phenomenon under investigation to understand a specific issue that occurs in everyday practice (Gay, Airasian, & Mills, 2014).

The exploratory case study fits the design for this research due to the nature of the collection of data. The case study requires an in depth, comprehensive approach to collecting data; and since this study investigates the phenomenon of recess, and seeks insight into the everyday practice of offering children recess breaks throughout the school day, the case study is the appropriate approach to explore and gain a deep understanding of this phenomenon. Multiple sources of evidence are provided in the data to determine the impact that recess has on children’s classroom behaviors, social-emotional development, and teacher pedagogy. The data collected was triangulated and converged to support and strengthen the results.

**Research Setting/Context**

The setting for this study takes place in a public-school district whose paradigm and infrastructure have undergone recent changes over the three years prior to this study. The district’s vision, as stated in its 5-year plan, is to increase students’ social-emotional and executive functioning skills, increase recess to 40 minutes a day, and emphasize a “Maslow before Bloom” theoretical framework to educating children. The district’s superintendent at the time stated that the Board of Education, along with the
superintendent, were “making the case for bringing joy and excitement back to learning.” According to the district’s plan, the emphasis would be on recess at the center of this shift to increasing children’s social competencies, supporting their emotional well-being and ultimately heightening attention to learning. The district emphasized in their 2016 *Road to Success* document that:

Play is an important component to learning and student success, which integrates a whole-child approach and initiates social and emotional growth by establishing more play time, less prep time for tests, and more robust, effective teaching via teamwork projects.

The public elementary school is in a suburban school district located nearby a large metropolitan city in the northeastern part of the United States. This school has a population of 457 students with 54% male and 46% female. The population is culturally diverse with 10% of the students receiving English as a Second Language services. The ethnic breakdown of student population is as follows: 2% Asian, 2.5% African American, 29.6% Hispanic, and 57.4% Caucasian. The percentage of students with disabilities is 16%, and 43% of students are socio economically disadvantaged as evidenced by the number of children who receive free and reduced lunch. There are 21 classroom teachers in the school, 19 of whom have been in the school for more than three years and have experienced varied forms and structures of recess through their tenure.

**Research Sample and Data Sources**

Phase one of the study was designed to analyze the effect of recess on classroom behavior. Thirty first-grade students from a suburban elementary school were selected as participants. Permission for participation was secured through a letter to parents.
informing them that a study was being conducted to determine the effects of recess on classroom behavior. Students were observed randomly prior to and following their 40-minute recess period. An individual T-Test was conducted to determine the occurrence of pre-and post-recess behaviors.

Phase two of the study began with a pilot study questionnaire for all 21 teachers in the school regarding recess time and duration and sought initial perceptions of teachers regarding the impact of recess on students’ social-emotional development, behaviors, and learning. The results of the questionnaire assisted in constructing the semi-structured interview protocol for faculty member participants. The questionnaire helped to determine teachers’ perceptions of the impact of recess on students’ social/emotional development, classroom behaviors, and educational pedagogy. Participant selection was on a voluntary basis. Letters of invitation to participate in the study were sent to 21 classroom teachers, two reading specialists, two physical education teachers, two English as a New Language (ENL) teachers, the school social worker, and the school psychologist. In order to ensure anonymity, letters of the alphabet are used as pseudonyms to identify participants. Twelve participants were chosen for semi-structured interviews, inclusive of the focus group.

**Data Collection Methods**

To analyze the impact of a recess break on classroom behaviors, phase one of the study, the researcher looked at three classroom actions: working, fidgeting, and listlessness. The researcher created a protocol with student names and classroom behaviors listed. Student names were transferred to numbers for analysis to ensure anonymity. Codes to determine behaviors are as follows:
**W (work):** On-task behavior, doing assigned work, discussing work with a partner, attending to the teacher. Eye contact, looking at the teacher, will be considered an indication of attending to the teacher.

**F (fidgety):** Excessive movement, tapping, arm or leg movement, partly out of chair.

**L (listless):** Head on desk, staring out the window, slumping or not attending, eyes shut.

The researcher recorded student behaviors through momentary time sampling by putting a mark next to the codes for working, fidgeting, and listlessness next to the names of student participants. Momentary time sampling is an interval recording method. An interval recording strategy involves observing whether a behavior occurs or does not occur during specified time periods. Once the length of an observation session is identified, the time is broken down into smaller intervals that are all equal in length. For instance, a 30-minute observational session may be separated into 30 intervals that are one minute in length. A major advantage of the momentary time sample recording process is that a researcher does not need to be attending to a student’s behavior all of the time. Momentary time sampling provides an estimate of behavior rather than the documentation of every occurrence and can be fairly easy to implement during class time. After observing a child for 1 minute, as indicated by a timer, the observer marked the appropriate behavior code (W, F, or L), on the sheet and then moved to the next child on the list. The study spanned 5 weeks. Each session was recorded as a proportion of .20, with a maximum proportion of 1.00 for pre-and post-recess behaviors. A T-Test was conducted to determine the percentage of each behavior pre-and post-recess.
The researcher established a questionnaire for classroom teachers to complete as a first step in the study. The questionnaire elicited information regarding teachers’ perceptions of recess and its effect on student development. The questionnaire required feedback regarding relationships between recess breaks and children’s social skills, emotional development, and classroom behaviors during sustained instructional time. Semi-structured interview questions were derived based upon the responses to the questionnaire to further explore concepts shared from participant responses. This allowed questions to be formulated and discussed during semi-structured interviews that were relevant to the practice of recess within this school. The researcher created a semi-structured interview protocol. Questions were centered on recess and children’s social/emotional development, classroom behaviors, and teacher pedagogy.

As a non-participant observer, the researcher practiced using the behavior observation protocol during a 2-week pilot of the protocol prior to beginning the actual study. Data for the study were collected in the natural classroom environment in each of three first-grade classrooms. There was no attempt to alter or control classroom teaching that occurred before or after recess. Therefore, the content and activities varied from teacher to teacher and from visit to visit. Teacher instructional practice also varied among the three teachers but were somewhat similar in nature. All three teachers had comparable teaching experience, and they worked collaboratively to ensure that curriculum was aligned across the grade level. Recess took place at the same time every day from 12:15–1:00 p.m. The study was designed to compound the research of Pellegrini and Bjorkland (1997) and Pellegrini and Smith (1993), which identified several
ideas that scheduling a recess break (unstructured playtime) is a useful instructional practice.

The process of participant selection was a criterion-oriented sampling used to select faculty and staff who would have valuable information regarding recess and its impact on students’ social, emotional, and classroom behaviors (Creswell, 2009).

**Data Analysis Methods**

Interviews were recorded using the researcher’s Apple iPhone 8 Plus model, which required a numerical code for access. During the interviews, the researcher used the REV app on her iPhone. Rev Voice Recorder is an audio recording, dictation, and transcription application. After each interview, the researcher analyzed the transcriptions and field notes to record insights and make connections to any emerging themes that were presented (Creswell, 2017). Interviewees were offered the opportunity to read the transcriptions and check for accuracy of their responses to questions. Faculty questionnaires were coded on paper using different colored highlighter pens. The researcher reviewed each questionnaire and highlighted words and phrases that were repeated in each of the questionnaires.

Faculty interview transcripts were also coded manually using different colored highlighter pens to determine words and themes that emerge. Affective, Exploratory, and Holistic coding methods will be used for First Cycle Coding. Affective coding methods investigate subjective qualities of human experiences by directly acknowledging and naming those experiences. These human experiences include but are not limited to emotions, values, conflicts, and judgements (Saldana, 2015). Emotion coding, a branch of Affective Coding, were used to label the feelings that participants may have
experienced. Emotion codes label the emotions experienced by the participants or the emotions recalled by the participants. Goleman (1995) defined an emotion as “a feeling and its distinctive thoughts, psychological and biological states, and range of propensities to act” (p. 289). Saldana (2015) stated, “Since emotions are a universal human experience, our acknowledgement of them in our research provides deep insight into the participants’ perspectives, worldviews, and life conditions” (p. 86).

Exploratory coding is a system used to preliminarily assign codes to data prior to more refined coding systems being established. Tentative labels were used as the data were initially reviewed. These labels included social, emotional, behaviors and pedagogy and were aligned with the research questions. A single code was used for each large unit of data uncovered to capture categories that emerged from interview transcripts in a Holistic approach to determining underlying themes (Saldaña, 2015). According to Saldaña, (2015), Holistic Coding is appropriate when the researcher already has a general idea of what to investigate in the data. It is preparatory groundwork for more detailed coding of the data.

Second Cycle Coding methods included Pattern and Focused Coding. Pattern Codes, according to Saldana (2015), are “ones that identify an emergent theme, configuration, or explanation. Pattern Coding groups summaries into smaller sets, themes, or constructs” (p. 152). Charmaz (2006) described Focused Coding as one that searches for the most significant Initial Codes to develop salient categories. Charmaz also posited that Focused Coding assists in determining which initial codes make the most sense. The goal in Focused Coding is to compare codes across participants’ data to assess comparability and transferability (Saldaña, 2015). Charmaz (2006) stated, “a
study fits the empirical world when codes are constructed and developed into categories that crystallize participants’ experience” (p. 54). According to Glaser (1978), “Data should not be forced or selected to fit pre-conceived or pre-existent categories or discarded in favor of keeping an extant theory intact” (p. 4). Coding and recoding continued until the data were saturated.

**Issues of Trustworthiness**

The trustworthiness and validity of qualitative research depends on what the researcher sees and hears. Lincoln and Guba (1985) noted that credibility, transferability, dependability, and confirmability are important in establishing trustworthiness. One of the ways to ensure credibility and transferability is to ensure that those interviewed have the opportunity to discuss the phenomenon the researcher seeks to explore (Lincoln & Guba, 1985).

Vignettes from the semi-structured interviews are used to illustrate key themes for this study, which also served as support for the results of the study (Leedy & Ormrod, 2014). One way to establish confirmability is to ensure there is no researcher bias. It is important to interpret what the data tell the researcher in an unbiased way. Transcribing entire interviews and manually coding them assisted in ensuring a deep understanding of the interview content and participant intent.

The use of constant comparative analysis ensured that systematic comparisons were made and that this research demonstrates the links between the analysis and resulting theories (Charmaz, 2006). Constant comparative analysis was critical in lending credibility to the theories that emerged from the data as the researcher specifically highlighted those codes and categories that had the analytical weight to be used in
developing the theory (Charmaz, 2006). Demonstrating saturation was a factor in ensuring that the data gathered included a sufficient amount to provide credibility to the phenomenon being studied (Charmaz, 2006). Transferability is limited in this research study as this study sought to explore a unique topic, one that is not yet apparent in all schools.

**Limitations of the Study**

The study included one elementary school within a large district in the New York suburbs. The results of this study are limited to the population and cannot be generalized to a larger national population (Grafi-Sharabi, 2009). Student classroom behaviors were observed only among first-grade students. The results of student classroom behaviors are not being generalized to children in other grades (Kelly & Hagerty, 2010). Teacher perceptions and lived experiences in the school are not reflective of the perceptions and lived experiences of teachers working in other districts throughout New York State or in other states (Kelly & Hagerty, 2010). The research is restricted only to the perceptions of nine classroom teachers, one English as a New Language teacher, the school psychologist, and the school social worker. Thus, the total case study sample size is limited to 12 professionals; however, implications of the study do have relevance to other elementary schools throughout New York and beyond.

The qualitative design selected includes written and digital audio recordings during the interview process so a smaller sample of teachers participates rather than the quantitative design that would employ a larger population (Grafi-Sharabi, 2009). The study is limited to a time frame within which the study will be conducted (Kelly &
Thus, the methodology selected, qualitative exploratory case study, limits the generalizability of the study.

Delimitations of the Study

Several delimitations influenced the study. The delimitations constituted those questions, objectives, and theoretical perspectives set by the researcher (Simon & Goes, 2013). The qualitative exploratory case study was to observe the classroom behaviors of students and to explore teachers’ perceptions and lived experiences of the effect of recess on elementary students’ social/emotional development and their educational pedagogy.

The research study group focused on teachers between the ages of 30 and 54 with elementary school experience ranging from 6 to 25 years. The qualitative data was conducted through the researcher as a non-participant human instrument. The interview questions were open-ended. The participant sampling was purposeful, and observations of students’ classroom behaviors were also a purposeful sampling. During the semi-structured interviews, participants were digitally audio recorded to elicit patterns and themes for data collection. Demographic information was collected for the participants to include gender and years in the field of education. Information obtained from the results of the study may contribute valuable knowledge to the field of education (Myers, 2000).
CHAPTER FOUR

Findings

The purpose of this case study was to explore the impact of recess on elementary school students’ social-emotional development, classroom behaviors, and teacher pedagogy. Data collection was completed in two phases. Phase one consisted of random observations of 30 first-grade students in their classrooms just prior to and immediately following a recess break. The researcher indicated whether each student was working, fidgety, or listless before and after recess through the use of a behavior protocol. Five observation sessions were recorded. Phase two involved semi-structured interviews with nine classroom teachers, a school social worker, a school psychologist, and one speech language pathologist. The researcher as a non-participant conducted observations of children during recess periods and took field notes to document their behaviors and conversations. Through the observation of first-grade students’ classroom behaviors, the researcher was able to gain a first-hand look at the impact of a recess break, or lack thereof, on children’s ability to attend to classroom instruction. The information shared through semi-structured interviews and field observations was exceptionally valuable in gaining a deep understanding of the benefits and drawbacks of recess.

Participant Information

Student participants for the study of classroom behaviors prior to and following a recess break included 30 first-grade students who were randomly selected, specifically, every other student on each first-grade teachers’ roster. Permission was secured from parents for the researcher to observe student behaviors. Student names were substituted with numbers to assure anonymity.
Semi-structured interview participants included nine classroom teachers. A focus group was comprised of one speech/language pathologist, the school social worker and psychologist. All participants were female. Semi-structured interviews were 20 to 40 minutes in duration and took place in a conference room in their elementary school building. The rationale for this location was that it was an informal, neutral space, which would potentially allow for honest, uninhibited, natural conversations. The faculty interview process took 10 school days. Letters of the alphabet were assigned to each participant as a pseudonym to ensure confidentiality. The semi-structured interview protocol consisted of six questions. Questions were derived as a result of a faculty questionnaire regarding the structure and duration of recess and teachers’ perceptions of the impact of recess on children’s development. Interview questions were open ended. Each question was created to delve into a specific area of child development and was relational to recess. Table 1 presents a summary of information regarding interviewees.

Table 1

<table>
<thead>
<tr>
<th>Pseudonym</th>
<th>Gender</th>
<th>Grade</th>
<th>Years Teaching</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher A</td>
<td>Female</td>
<td>K</td>
<td>20</td>
</tr>
<tr>
<td>Teacher B</td>
<td>Female</td>
<td>K</td>
<td>16</td>
</tr>
<tr>
<td>Teacher C</td>
<td>Female</td>
<td>1</td>
<td>18</td>
</tr>
<tr>
<td>Teacher D</td>
<td>Female</td>
<td>1</td>
<td>15</td>
</tr>
<tr>
<td>Teacher E</td>
<td>Female</td>
<td>1</td>
<td>15</td>
</tr>
<tr>
<td>Teacher F</td>
<td>Female</td>
<td>3</td>
<td>18</td>
</tr>
<tr>
<td>Teacher G</td>
<td>Female</td>
<td>4</td>
<td>21</td>
</tr>
<tr>
<td>Teacher H</td>
<td>Female</td>
<td>4</td>
<td>14</td>
</tr>
<tr>
<td>Teacher I</td>
<td>Female</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>
### Table

<table>
<thead>
<tr>
<th>Participant</th>
<th>Gender</th>
<th>Occupation</th>
<th>Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant J</td>
<td>Female</td>
<td>Psychologist</td>
<td>25</td>
</tr>
<tr>
<td>Participant K</td>
<td>Female</td>
<td>Social Worker</td>
<td>21</td>
</tr>
<tr>
<td>Participant L</td>
<td>Female</td>
<td>Speech Pathologist</td>
<td>24</td>
</tr>
</tbody>
</table>

Following the semi-structured interviews, data were coded. Interview transcripts were coded by hand using colored highlighter pens. A single code was used for each large unit of data uncovered to capture categories that emerged from interview transcripts in a Holistic approach to determining underlying themes (Saldaña, 2015). Holistic Coding categories included Classroom Behaviors, Social-Emotional Development, Teacher Pedagogy, and Drawbacks of Recess. Classroom behaviors that were described in the interviews as a result of recess included focused, attentive, and calm. Emotion coding was used to label the feelings participants may have experienced as a result of recess breaks through the school day. Emotions were listed under the classification of Social-Emotional Development. The most prominent social-emotional themes that emerged included conflict-resolution, collaboration, and happiness. The children’s happiness was indicated in every interview that was conducted. Themes that emerged under the code of Teacher Pedagogy included improved pedagogy, anxiety, and confidence in meeting the children’s needs.

Second Cycle Coding methods included Pattern and Focused Coding. Pattern Coding groups summaries of interview responses into smaller sets, themes, or constructs (Saldaña, 2015, p. 152). Charmaz (2006) posited that Focused Coding assists in determining which initial codes make the most sense. The goal in Focused Coding is to compare codes across participants’ data to assess comparability and transferability (Saldaña, 2015). Coding and recoding were continued until all the data were saturated.
There were several research questions guiding this body of work. Results are indicated for each research question.

**Research Question 1:** How does recess affect children’s classroom behaviors?

Results of the study on classroom behaviors indicated that 29% of first-grade students were on task before a recess break, whereas 81% were on task following a break. Results also indicated that 63% of students were fidgety before a recess break, and only 12% were fidgety following recess. There were very few incidents of listless behavior before recess, and none following recess; therefore, the listless behavior category could not be computed. Table 2 indicates the results of the study on classroom behaviors.

Table 2

*Results of Pre- Recess and Post Recess Classroom Behaviors*

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Standard Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre -Work</td>
<td>30</td>
<td>.29</td>
<td>.28</td>
<td>.05</td>
</tr>
<tr>
<td>Post Work</td>
<td>30</td>
<td>.81</td>
<td>.31</td>
<td>.05</td>
</tr>
<tr>
<td>Pre -Fidget</td>
<td>30</td>
<td>.63</td>
<td>.26</td>
<td>.05</td>
</tr>
<tr>
<td>Post Fidget</td>
<td>30</td>
<td>.12</td>
<td>.23</td>
<td>.04</td>
</tr>
<tr>
<td>Pre- Listless</td>
<td>30</td>
<td>.67</td>
<td>.13</td>
<td>.02</td>
</tr>
<tr>
<td>Post Listless</td>
<td>30</td>
<td>.00</td>
<td>.00</td>
<td>.00</td>
</tr>
</tbody>
</table>

Interviewees met individually and in small groups with the researcher to respond to the interview questions. When asked about their students’ classroom behaviors before...
and after recess they each shared their observations. There were many responses that overlapped between teachers across all grade levels. The most prominent patterns that emerged in response to research question 1 included students’ behaviors of focused, attentive, and calm. All participants spoke freely and had much to share regarding their perceptions of recess breaks on students’ classroom behaviors. These classroom observations coincide with the research of Pellegrini and Bjorkland (1997). In their study, Pellegrini and Bjorkland (1997) argued that by giving children frequent breaks during and between highly focused cognitive and academic tasks, their performance on later tasks should be enhanced relative to children who are not given such breaks. This study is also aligned with the work of Jarrett, Dickerson, Hoge, Davies, and Yetley (1998), who conducted a study that was centered on the theory that children need breaks between sustained instruction in order for them to be less fidgety and listless during instructional time and more focused and on task. The following data are indicative of the classroom behaviors teachers observed and how those behaviors relate to recess breaks.

**Focused**

Each participant shared her perceptions that following a recess break, the majority of students, regardless of age or grade level, were more focused. Teacher A is a kindergarten teacher. She shared in our interview that she offers students breaks approximately every 20 minutes throughout the school day. She communicated that if she wants her students to sit for an entire story, she gives them a longer break. She shared, “If I know we’re going to do centers, I can give them a shorter break. For most students, they’re able to focus more during the day because they know that a play break is coming. They know they can save their socializing and energy for that time.”
Teacher B, another kindergarten teacher, agreed. She shared that her students are more focused following a break and that “their bodies are not moving all over the place.” She said that there is “definitely a noticeable change from the morning until the afternoon. They definitely start an activity more focused after the breaks.”

Participant C, a first-grade teacher, revealed similar sentiments regarding her students’ focus following a recess break. She observed that her students, “Are actually more present when teaching after the breaks.” When she tries to teach for extended times on mornings when she did not want her lessons to be interrupted, she stated that she, “Can absolutely notice that they are not focusing; they are not able to pay attention as well.” Teacher D also teaches first grade. She specified that, “There’s a big difference when I give them a break, and when I don’t. They are just more focused. They’re antsy if I don’t give them a break between periods.” Teacher E also teaches first grade children. She shared with me that after a break her students are, “Definitely more focused because they’re able to give me their full attention.” She noticed that following a break, the children, “Were not using useless energy fixing their shoes or fidgeting.” She said that it is during recess that children, “Get all of that [energy] out,” and then they are able to give her their full attention. The data collected in this study is aligned with the research of Jarrett, Maxwell, Dickerson, Hoge, Davies and Yetley (1998), that young children benefit from breaks between lessons.

The data reflects what has been previously stated in Chapter Two in a report by the National Disease Control (2013) that stated, “Integrating physical activity within classrooms as part of planned lessons that teach mathematics, language arts, social studies, and other academic subjects through movement can increase students’ overall
physical activity and improve time-on-task and attentiveness.” Children’s immature cognitions cannot withstand the demands of long periods of sustained instruction. Teacher and participant responses indicated that attentiveness and focus was heightened following a recess break.

The researcher’s field observations of students’ behaviors during their recess time align with the participants’ interview responses. Data collected through the field observation process showed a difference in the energy levels expended between inside and outside recess, with outside recess being much more physical than inside recess. Teacher G, a fifth-grade teacher further validated this observation when she stated that sees “a significant difference between inside and outside recess.” She told me that the energy they expend outside breathing in the fresh air rejuvenates them upon their return to the classroom. She commented that because it gets hot and stagnant during indoor recess, the children are less motivated upon their return compared to having been outside.

**Attentive**

Data collected from the semi structured interviews indicated that children were more attentive following a recess break and easily distracted prior to a break.

Teacher F, a third-grade teacher, shared that once the children “get out that break, they’re more attentive. The brain break allows them a good 10 extra minutes of non-antsy.” She said there is a noticeable difference when she tries to read a book to them before the recess break, as compared to after. She said that after, they listen better and ask questions, but before, they are off task and inattentive to the concept being shared in the story.
Teacher C is a first-grade teacher. She stated that she could not believe the difference that recess makes when it comes to what children are able to accomplish. She asserted:

On days when I did not give them the breaks. Oh my gosh, I got to everything. I did reading workshop, I did math, I did shared reading, and then I looked and no one was paying attention to me. I would say four out of the 21 kids were actually taking anything in because they were zonked. They need to expand that energy, they need to get their fidgets out or their wiggles out so they can give you their attention, and I noticed that not giving those brain breaks, it is torture. Because then you lose them.

Teacher D, also a first-grade teacher, agreed that her students are, “Actually more present when teaching after the breaks.” She discussed with me that on the mornings when she would continue to teach because she wanted to “get through all of the curriculum, and not be interrupted” she noticed that her students were, “Not focusing; they are not able to pay attention as well.”

When Teacher H, a fourth-grade teacher, was asked if she thought that recess made a difference for the older children in the school, she stated that, “It’s especially good for kids with attention issues. I think it’s better for them because they get all of that energy out … all that extra energy.” She followed up by telling me that after recess she felt like all eyes were on her, and that the majority of her students were much more attentive and ready to learn.

“In kindergarten,” stated Teacher A, “my kids perform better in the afternoon, after the long recess, than in the morning. They get the wiggles out.” She feels that the
sustained period of activity provides students a longer period of attention when they come back into the room.

The data aligns with The National Scientific Council on the Developing Child (2004), who considers the emotional well-being of children to be an exceptional consideration for learning, proclaiming that it is foundational. This is because proper brain development—which leads to optimal thinking skills—depends on the fostering of emotional growth.

**Calm**

Participants in this study declared that following a recess break, students across all grade levels displayed a sense of calmness. They claim that being calm is critical to their acquisition of skills. Collins (2018) reminded us that children with anxiety often have difficulty concentrating, and they may display behavior that is misinterpreted as signs of attention-deficit or other disorders. Therefore, Collins (2018) stated that it is essential that we offer children time to unwind and recalibrate between instructional periods throughout the school day.

Play Club is a mixed aged club in this school that is offered to all students, across all grade levels, once a week before school begins. Teacher I, a fifth-grade teacher, and supervisor of the Play Club said that she feels that the children who participated in Play Club were calmer than the children who did not have physical activity prior to coming to school. “I just felt like they were ready to start their day. They released something…maybe a release of energy. They were really up…and ready,” she stated.
Fourth grade Teacher H concurred with the sentiments of Teacher I. She said that her students, “Are definitely more relaxed and they’re ready to go after a recess break, and after Play Club.”

“In kindergarten,” stated Teacher B, “I feel like when they come back from a 40-minute running around outside period, they are quieter.” Regarding her first-grade students, Teacher D told me that, “Additional time for morning breaks allows the students that time to socialize, create, and relax.

Research Question 2: What are teachers’ perceptions of recess breaks on children’s social/emotional development?

Participants were forthcoming regarding the impact of recess on their students’ social-emotional development. Overall, interviewees shared that recess plays a vital role in socialization and helps to improve the emotional well-being of their students. Participants shared that in the past, before extended recess, children did not have the necessary skills to make new friends, socialize, and understand how to take turns or invent new games. They shared their thoughts on how technology has played an integral role in the anti-socialization of children and that children in today’s society are programmed to stay indoors and play video games in lieu of knocking on a neighbor’s door and playing outside. They also shared their concern for the over scheduling of structured activities for children. The majority of participants stated that they felt that mixed age play had a positive influence on children’s socialization and self-confidence. The reason for this, they stated, was that older children who did not fit in with their peers found a sense of importance when playing with younger children. On the other hand, young children emulated the older ones and felt a sense of pride when playing with
children who were older than they were. Patterns that emerged as result of research question 2 included conflict resolution, collaboration, and happiness. The following vignettes explicate teachers’ perceptions of recess where children’s social-emotional development is concerned.

**Conflict Resolution**

Teacher B and I discussed that due to an increased digital society, it seems that children do not have the ability to resolve their conflicts because they spend more time on technological devices, and less time playing with friends. She commented that recess provides her kindergarten students with the time and ability to work out their own issues that are happening. “They have more opportunity now to work through their problems and they’re coming to me less and less. They’re using their words to say how they’re feeling or what they want.” She shared that she is starting to see kind language like, “Can I have it next when you’re done?” Participant C teaches kindergarten too. She agrees that her students need to build social skills. She stated, “I see it during this time [recess]. I try to be useless in helping them to solve conflicts. In the beginning of the year, they don’t know the difference between tattling and telling. They have time during recess to work things out.”

For first grade students, Teacher D said that recess is helping the children to get along with others and work out their problems. She stated that, “They have more time to play, work together and talk to each other.” She told me that the social time has assisted the children in working things out for themselves.

Teacher E said that her first-grade students have recess with fourth grade students. She said that even though some of the children at recess are older, “They’re not afraid to
approach them [older children] any longer because they’re around them in the playground. They know they’re friendly to them, so they aren’t as intimidated by the older kids because they are exposed to them more. I think that definitely makes a difference.” Teacher F said that less of her third-grade students are coming to her to solve their problems. She stated that, “They’re learning to solve their own problems.” Teacher G agreed. She commented that her fourth-grade students are, “Solving their own problems. They always come back to us with a solution.” Teacher H, who teaches fourth grade concurred, “I think, for some kids, they’re better able to work out problems.”

The results of the data are aligned with the research of Pellegrini and Glickman (1989), who postulate that ‘recess offers children the freedom to exhibit a wide range of social competencies,’ and that ‘at recess the playground become one of the few places where children can actually define and enforce meaningful social interaction during the day.’ Pellegrini and Glickman (1989) state that, “Without recess, the children lose an important educational experience” (p. 24).

**Collaboration**

Participants shared their consensus that collaboration is a 21st century skill necessary for our students to become successful citizens in a global society. Their insights included that students’ abilities to communicate and collaborate were a result of the socialization that occurred during recess periods.

“My kids are interacting much more frequently with the [other] kids. They seem to be learning how to share and take turns. I’ve noticed a change,” stated Teacher B, a kindergarten teacher.
First grade Teacher E told me that her students are working together talking to each other. She said that they are, “Asking each other for help. So, I think the extra time is giving them more time to work on the skills they [have not yet developed].”

Participant J is the elementary school psychologist. She felt very strong about modern technology and children’s lack of social skills:

Because of being engaged on the technology and not exposing themselves to other kids … we’re living in a generation where both parents are working, nobody has time for those mommy-and-me kinds of things we used to do. They engage on the internet, so they don’t have face-to-face communication. They learn socialization skills – communication, collaboration - through engaging with each other. Recess offers them these opportunities.

Participant L is the school’s Speech-Language Pathologist. Her sentiments were similar to that of the school psychologist. She shared that parents aren’t taking their kids outside and having play groups. She feels that children spend too much time on the internet. “As a result,” she stated, “the basic skills of communication and collaboration have been lost or underdeveloped. They don’t know how to go over and discuss the rules of a game.” Participant L feels that by interacting without any adult interference at recess is prompting children to use more spontaneous language.

Participant K, the school’s Social Worker shared her sentiments, “We don’t really have to be on them as much at recess because they are playing soccer together, and they’re getting along, and they work out whatever problems they have among themselves.”
Third grade Teacher F agreed that the children are playing team games like dodgeball together. She shared that during indoor recess when it was time to clean up, she thought she was going to have to ask her students to sort the toy bins. She was initially concerned that it was going to be difficult to get them to work together to clean up. “Surprisingly,” she said, “they put the toys all back in the right bins together. They were all perfectly numbered! They worked on it together!”

It was apparent that even the youngest students were learning to collaborate as a result of increased recess time together. Teacher D, a first-grade teacher, said that her students are “just learning to work together more.” She also noticed many mixed aged children playing together in Play Club. She told me that in Play Club the older children were nurturing the younger ones, and the younger children were aspiring to play with the older ones. She was elated. “There are more connections being made.”

Field observations of students at recess also indicated a sense of collaboration. When observing first and fourth grade students at recess, which included 79 first-grade students and 72 fourth-grade students, all of the children were playing on the large field of their elementary school. While many students gravitated to the area where there was a playground, other students began to play their own games. During this session, I noticed 12 boys all standing in a huddle. Upon listening closely, I realized they were assembled to discuss their recess tag football game. Within the huddle were eight fourth-grade boys and four first-grade boys. The mixed aged recess appeared to offer children the opportunity for across grade level collaboration and foster new friendships. It was evident that this was an amicable, collaborative, and cooperative game. There was no yelling except for team members calling to each other to catch or throw the ball. After
the game was over, when the recess period ended, the boys formed two lines and walked past each other slapping friendly hands. This is a practice that is usually witnessed in team sports. As they lined up to go back to their classrooms, the boys were overheard discussing their plan to play again the following day. My reflection of this recess period was that the boys were able to run off their energies while collaborating and cooperating not only with their same aged peers but also with peers in different grades and of differing ages.

**Happiness**

Snow and McFadden (2017) reported that childhood anxiety is on the rise among members of the youngest generation of Americans, with critical implications for the country’s future. The Centers for Disease Control and Prevention (2016) reported that one in five American children ages 3 through 17—about 15 million—have a diagnosable mental, emotional, or behavioral disorder in a given year. As educators we are remiss if we do not tend to children’s emotional well-being. Participants in this study shared their perceptions of children’s happiness as a result of being able to play during recess breaks. The feeling of happiness in both children and teachers was an overwhelming response, with 100% of participants sharing this emotion. They shared their thoughts on how much happier these children are to come to school and the happiness they present while at school.

Kindergarten Teacher A told me that, “Ten years ago kids were so beat down when they walked through the doors of the school. They were dragging their feet and doing anything not to come to class. Now, I feel like they skip down the hall.” The rest of the participants echoed these sentiments:
Teacher B (Kindergarten): “The kids are happier.”

Teacher C (1): “They are happy this year!”

Teacher E (1): “They are happier and more relaxed.”

Teacher G (4): “Children are happier!”

Teacher H (4): “Students are always happier when they have full recess!”

Teacher I further defined the children’s happiness. She shared that not only are students happy, but, “They enjoy recess time because they get to engage in conversations with friends, play games, and learn about new games they haven’t been exposed to in the past.” Her perception is that it is through the extra recess breaks that the happiness is created.

In our interview, the school’s social worker, Participant K, shared that she feels that, “It’s healthy for kids to be kids in this day and age.” She said that it is healthy for them to be able to play, and that it is especially healthy for them to be outdoors. As a social worker, she believes the anxieties in the students in this school have diminished. She stated, “My sense is, in all honesty, that one’s emotional wellbeing is linked to unstructured play.”

**Research Question 3:** How does the implementation of recess periods between sustained instruction impact teachers’ pedagogy and practice?

Hyvonen (2011) conducted a study regarding teacher pedagogy and school based play. Participants shared their confounded thoughts in regard to their concerns for a heavy curriculum that needed to be taught and their understanding of the value of play. Results indicated that teachers are generally critical of circumstances that inhibit playing. Participants’ perceptions of play in the present study were aligned with those of the study
conducted by Hyvonen. Teachers have ongoing concerns regarding state and local initiatives, heavy curriculum, and accountability to ensure that students are “making the score.” On the other hand, the teachers in the present study shared their insights regarding their newfound freedom to “teach the way we know children learn” and “allow kids to be kids.” They also agreed that they feel like a better teacher following a recess break. Themes that emerged as a result of this research question included the fact that recess breaks serve a dual purpose: one for the children, the other for the teachers. Recurring themes included improved pedagogy, anxiety in meeting curricular expectations, and confidence in meeting the children’s needs and educating the whole child.

**Pedagogy**

Teacher F, a third-grade teacher feels that the brain breaks via recess are suitable for the teachers as well. She shared with me that she noticed when it’s time for a brain break, she was looking forward to getting some fresh air or just getting up from her desk or small table to walk around. She declared that, “After 10 minutes, I am a better teacher, more relaxed, and better equipped to continue my task at hand.” Teacher E teaches first grade. She agreed that, “Additional time added to recess helped the students … and I’m refreshed as well!”

Kindergarten offers little down time for teachers, according to the kindergarten teacher participants in this study. Teacher B feels that she is much happier as a result of the recess breaks. “I’m creating new lessons that allow the kids to have fun while learning [through play]. It’s just calmer. It’s easier. I feel like I can plan more and get
more accomplished through the units of what I want to do. And I’m able to follow through with that because their attention is better after those breaks. We are all happy.”

Teacher F spoke to me in detail about her renewed pedagogy as a result of recess breaks throughout the day. She stated that additional time and flexibility throughout their daily schedules has allowed her to make professional decisions to improve both her teaching and her first-grade students’ learning. “When I give them a 5-minute brain break throughout the day, their learning and my instruction is more productive because sometimes I need the brain break too.” When asked what she does during break time, she stated that it gives her time to touch base with a few children that love to tell her stories but need to wait. “Sometimes,” she commented, “I am involved in their break activity because it may be a quick game, quick exercise, and it gives us time to connect and bond.”

Teacher E also teaches first grade. She has adjusted her day and teaching to involve more breaks. Her perception is that students are learning more during instruction time when they are given recess breaks throughout the day. It’s a more positive learning environment for both teachers and students,” she declared. Teacher D felt similarly to her grade level partner. “I’m noticing when we give the children a break, I sit and I just like recollect and I feel like I’m back and ready.” She said that it really shows in my instruction and that it is important to admit that you needed a break.

Teacher H feels that she is a better teacher when she plans for recess breaks. “I have learned to be more patient when they need breaks! I’m trying to let go and give them more independence and responsibility.” She said that following a break, she feels refocused too.
Anxiety and Curricular Expectations

Recent research in the field of educational philosophy has emphasized the need to reassess many of the assumptions that support the role of the school, the teacher, and education in general. Lovat, Dally, Clement, and Toomey (2011) explored the findings of values pedagogy, both Australian and international, and the need to reconsider many of the assumptions and theories in teacher education. It was apparent through our interviews that though teachers have a deep understanding of child development and practices that are in their best interests, they feel confined to the heavy curriculum implemented under federal, state, and local guidelines. Here, our teacher participants share their anxieties regarding “fitting it all in” and, as a result, being hesitant to implement the breaks that they realize are so necessary for children:

According to Kindergarten Teacher B, “Time management of fitting everything in with less time in the classroom [as a result of recess breaks] can cause me some anxiety.” She feels that there is a need to reassess the implementation of everything that is supposed to be taught in a day.

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“The only drawback is the curriculum,” commented Teacher F. “There is a certain amount we are to get through. And, at times, I feel like, well, we just might not be able to finish right now.” She described that teacher’s plates are full because of the heavy curricular demands from New York State. She concurred that things may have to be adjusted as far as getting to the end of the last phonics or math unit. “I’m teaching a little different. We’re doing things differently. I really do feel we’re attending to the basic needs of the children first. I really do.”
It was evident that teachers in the upper elementary grades felt similar pressure regarding the curriculum. Teacher I stated, “It’s hard to get past that you might not get to everything.” In our conversation, Teacher H, a fourth-grade teacher, made the point that, “We tend to put pressure on ourselves to get things done. We say to ourselves that we still have to do this, or we didn’t get to this. I think it’s just within ourselves and we need to let it go.” It was evident that the core value of play was shared by the participants in this study, regardless of the anxiety that might be caused by trying to accomplish the curricular goals. Teacher D was very clear, “We see the value of play. So that even if we think that teaching five subjects a day is the best and to get straight through, I feel like we know that’s not quality. That’s not good.” Teacher E has struggled with trying to fit in all of the fourth-grade curriculum. She said, “I feel a need to get things done within a certain amount of time.” She also shared that the pressure is not put upon her by the principal, but rather put upon her by herself and what she feels the school district’s expectations are of the teachers.

**Confidence in Educating the Whole Child**

Over the past 25 years, recess has been cut to increase academic performance (Jarrett, 2014). The reality, according to Jarrett, is that play fosters learning. The participants in this study shared their perceptions of how they are better able to meet the needs of their students as a result of a flexible schedule that encourages recess breaks throughout the day.

Teacher A felt like she was torturing children all day before offering recess breaks. She shared that she was reaching for goals that her students were not developmentally ready for in kindergarten. “With the implementation of recess breaks, I
don’t feel like that anymore. I think that we’ve grown.” She stated that now she feels that the faculty members in this school are looking at the needs of the children and reevaluating their grade level goals. Teacher A stated, “We’ve adjusted them [our goals] to be better for the kids. What we’re doing is developmentally appropriate.”

In third grade, Teacher F has changed in the sense that she used to help her students to problem solve each day and now she steps back so they can learn to manage their relationships with their schoolmates. She feels confident that this helps them with their communication, cooperation, and teamwork skills. She revealed, “Now I feel like I finally have the time to educate the whole child.”

Teacher E agreed, “It’s a more positive learning environment. More recess breaks have increased risk taking, collaboration, and creativity.” Recess breaks have provided many teachers with the opportunity to experience educating the whole child. Teacher I claimed that she has realized the impact recess has in a student’s life and in their success in school. She feels that for her fifth-grade students, “Recess provides additional life experiences that they wouldn’t necessarily receive in the classroom.”

**Challenges Associated with Increased Recess**

Contrary to the researcher’s assumptions, and despite the substantial research to support the benefits of recess, the participants in this study did share some of the challenges they have faced as a result of the increased recess breaks. For example, Teacher H, a fourth-grade veteran teacher shared:

I definitely think some kids are benefitting from it [recess]. I think the kids that take advantage are still taking advantage of that time. In other words, I think
some children need more structured recess. Sometimes they get too silly with too much unstructured time.

When I asked Teacher H to elaborate, she shared that some of the children are constantly asking when the recess break will be coming. She feels that some of them expect the breaks. She stated that although the children are frequently asking for breaks, she understands the reason why they ask for them. She said that she is aware that her students need those breaks. Teacher H feels that there has to be a set schedule for certain class dynamics of children. This way, they know when the breaks are scheduled, thus decreasing the number of times children ask when a break will occur.

Teacher G, another fourth-grade teacher, shared that she is still hesitant to allow children to run outside for the recess breaks. She is fearful that too much time will be spent heading outdoors and coming back in. She feels that this is a mindset and practice that will take some teachers longer than others to adapt to. She stated:

I rotate my schedule so that the breaks occur when different children are still in the classroom. The issue I have is that I’m trying between orchestra lessons and band lessons and ENL pull outs to make sure that the breaks are equitable and that all of the children have a chance to have them daily. Some days my schedule is literally lunch, recess, orchestra, band, ENL. It makes it difficult to teach the curriculum, but I want every child to reap the benefits of the breaks.

Teacher F stated, “When I worked at another one of our elementary schools in the district, under a different building leader, the recess was so short the children literally cried coming in. But sometimes they are loud coming in from outside to inside. It takes a bit for them to settle in, even for my third-grade students.”
The question arose during some semi-structured interviews regarding whether teachers saw a difference between indoor and outdoor recess. Teacher A, a kindergarten teacher, shared her thoughts declaring, “I see a significant difference from inside recess to outside recess. I mean, it is night and day. All the energy they get outside, the fresh air, they’re rejuvenated when they come in. Inside it is hot and stagnant. I feel like they are not as motivated as if they were outside. Sometimes, if something negative happens at recess, it can carry over into the classroom.”

The data collected revealed the benefits of recess breaks outweigh the drawbacks or challenges. As the researcher, I had the opportunity to observe a fourth-grade teacher, Teacher H, having a conversation with her class on their perceptions of recess. The students shared that recess provided them with opportunities to spend time with their friends, make new friendships, and gave them time to “be outgoing.” One student, a male, stated, “You can just loosen up. If you have a tight day, you can let it all go and you can forget about it and have fun.” When asked by the teacher, “What if we took recess away?” one female student in this class responded, “We wouldn’t get the time to relax. We would just keep on working. We would still be able to focus, but not as much. And we wouldn’t be in such a good mood, and we might not be talking very nice to each other.” A male student responded to the same question, “We probably wouldn’t have that many friends, because at recess you get to hang out with your friends, right? So, if they took that away, it would be much harder.” During the class discussion, the teacher posed the question, “What does recess do for you?” A female student responded, “You get out your energy, and then you focus, because you don’t have so much energy.” Responding to the same question, another female student shared, “Recess gives you time to be
yourself, and then come in and focus hard and do your work.” To close the conversation, one of the male students surmised, “I think our mood changes our ability to focus. Because how you act might reflect on the things that you do.” He also stated, “At recess, we come together to socialize and interact with people we never knew existed. We can make new friends and we can try to talk to people that have different backgrounds.”

It was clear that the teachers’ perceptions of what recess offers children was significantly aligned with the thoughts and feelings of this sampling of students. The data collected from teachers and mental health providers in this study reveal the same perceptions and experiences that the children have shared with their teacher.

The observation of behavior is at the center of all scientific inquiry in social and personality psychology. The term “behavioral observation” generally refers to a researcher seeing and/or hearing and recording the behaviors of an individual or group of individuals within a particular social context of interest such as the classroom, the playground, the peer group, the home, the clinic, or the workplace. Typically, individuals are observed for relatively brief periods of time but often for multiple bouts (Reis & Judd, 2014). To further elucidate the impact of recess on children’s behaviors, and as the researcher and building principal, I conducted a series of naturalistic observations during recess breaks over the course of one school year. I summarized the physical behaviors and verbal communication of the participants and used my field notes and photos to triangulate the data with the classroom behavior observations and participant interviews. Through the field observations, additional themes emerged. These themes included creativity, innovation and leadership. Often times, these behaviors were observed in the same settings.
Creativity, Innovation, and Leadership

Observation session one, kindergarten: Among 76 kindergarten students playing outside for recess, I observed six female students. The girls were using hula hoops and pretending they were in the video game Pac Man. The girls did not use the hula hoops in traditional fashion. They stood in the center of their hula hoop and were “chomping” their way around the field, following one another along their Pac Man path. The girls were telling their teacher that they were characters in the game, and they used rocks and sticks to create the pathway. Their creativity and innovation were fun to watch. Their collaboration regarding the order in which they would be marching and how to set up the pathway involved some decision-making skills. In this particular session, none of the girls emerged as a leader; instead, they took turns literally leading the pack. They were giggling, skipping along their pathway, and smiling through the entire process.

Observation session two, grades one and four: During this observation period of a friendly football game, one boy emerged as the leader, and the others were open to his lead. The boys discussed the rules for tag football and created teams. Interestingly, the young boys were selected onto teams within the first few picks, indicating that they were valued within the group. Their pride was evident as their names were called as members of a team. The boys ran around the large field, throwing the ball, tagging each other, and calling time out when one member felt the need to discuss the guidelines. It was my observation that when children are left to play on their own, without adult directives, natural leaders evolve from the group.
**Observation session three, grade three:** This observation included 79 third-grade students playing on the field. Of these students, two boys and three girls caught my attention. They were sitting under a tree, picking up sticks, and drawing with them in the sand around a tree. It was apparent that this was a game these students had invented earlier in the school year. One student used his stick to draw a letter, and the next child had to draw a letter that would assist in the creation of a word. They squealed with glee each time they wrote the final letter of the word and shouted the word together. At times, they even high-fived each other as an indication of their satisfaction with their teamwork. This recess game was innovative and required the children to use their literacy and phonics skills.

**Observation session four, grade five:** This recess observation occurred on a rainy day. There are 78 fifth-grade students in total on the grade level. On this day, one class of 24 students spent their recess in the school’s Discovery Center. A group of nine students, four boys and five girls, worked tediously to create a large structure with the large blocks in the room. They were overheard discussing their Native American longhouse creation. The children discussed several elements that they had learned in their classes about longhouses. They discussed sleeping arrangements and built beds. They discussed smoke holes and build a mock fire pit. Students worked together, handing each other the blocks and helping to determine their placement. When a child had an idea, the others easily agreed. It was evident that these children were able to clearly communicate with one another and that they respected each other. No one’s ideas were rejected. At one point, one child suggested they create a slide for the Native American children that would be living in the longhouse. The others laughed and agreed,
and they begin to build a structure that replicated a slide. In an instant, the other children in the class lined up to slide down the slide. This recess activity brought the class community together. It also celebrated social, emotional, and academic outcomes as the children worked cohesively, supported each other, and recalled content from their social studies curriculum. The culture was vibrant, and the children appeared happy and confident, further validating that recess provides children with opportunities for their creativity to evolve, and fosters happiness.

**Observation session six, grades two and five:** This recess period was in the courtyard directly outside the cafeteria. Students are permitted to exit the cafeteria into the courtyard upon the completion of their lunch. Second- and fifth-grade students have lunch together; therefore, they entered into the courtyard together as well. During this session, four boys were playing checkers, two boys were playing chess, and there was a group of five girls having a hula hoop freeze competition. I focused on the hula competition. One girl was the “music maker,” singing songs and stopping in between her song. It was apparent that the rules were that when the music stopped, the girls were supposed to stop circling their hula hoops. This was not a traditional game as checkers and chess, rather an inventive game that met the needs of the children. When the music stopped, the girls giggled uproariously, looking to see who the last one was to drop their hula hoop. This event continued for 15 minutes, at which time, the group moved into the large field area for larger play. It was obvious that the music maker emerged as the leader of the group, but the four other girls appeared to be just fine with her leadership and designations. The girls communicated song ideas and discussed the option of “being out” if one was to continue using her hoop once the music stopped. It was so interesting
to watch children invent their own games and rules without any adult intervention. It was almost as if the children knew they had to define the rules and work out their ideas because they knew they were autonomous at recess time.

**Observation session seven, Play Club:** The before school Play Club at this school consists of 100 children of mixed ages and grade levels. There are four teacher supervisors. Supervisors are directed not to intervene with the children at play. They are there for the sole purpose of safety. Children have learned that if they go to one of the adults to tattle, the supervisors will direct them back to the situation and guide them to accomplish a desired outcome. This morning’s Play Club was in the school’s courtyard. A group of 22 children ran straight for the buckets. There are 100 plastic buckets of varying primary colors in a bin. Together, the children began stacking the buckets and created a wall. There was one female student who began directing other students to throw bean bags at the structure to see what would cause it to fall. Once the structure was demolished, the children immediately began to rebuild together. It was as if working together was second nature even though there were children of mixed age groups. What was particularly interesting was that the older children tended to support the younger children, and the younger children appeared to show a sense of pride in being able to play with the older children. Watching the children playing and building together was a very uplifting experience. It was almost as if there was an apparent shared understanding of the school culture: communicate, cooperate, collaborate, and be kind.

During each observation, children were observed participating in activities that fostered shared values. In triangulating field observation with participant interviews, there were themes that were overlapping and recurring. Teacher G stated, “Maybe they
[the children] are successful at recess, but not in the classroom. It is interesting to watch and see which students emerge as leaders, and where their creativity lies.”

Teacher H stated during her interview, “We don’t have to be on them as much at recess because most of them are all playing together, and they’re all getting along, and they all work out their problems they have among themselves without us.” Regarding Play Club, Teacher I stated, “With Play Club, there are different age groups. That gives them the opportunity to go and play with other students that they may not normally play with. In Play Club, children get to explore other relationships.” Data collected during field observations validated that children are collaborative and resolve their conflicts generally on their own during recess breaks. Teacher F shared, “Now they have time for those interpersonal skills to be built because they haven’t had time [in the past].” Interpersonal skills including communication, collaboration and cooperation, in addition to creativity, innovation and leadership were all evident during the recess observations. The data from semi structured interviews and field observation strengthened the results of this study.

Summary

In summary, the data indicate that recess is a time when children have a break from learning, a necessity for healthy child development which aligns with the research of Gray (2013). Teacher’s perceptions of the impact of recess on children’s attention to learning were indicative that recess breaks are essential in increasing children’s attention during instructional time. They concluded that without recess breaks, children not only had difficulty focusing on the content being taught, they also became fidgety and off task. The conclusion, according to the participants, is that instruction must be focused on the
quality of the information being taught, not the quantity of instructional contact time offered to children. Increased time on task, which has been a focus since No Child Left Behind (2001) does not optimize learning. The findings of this study indicate that more breaks in between learning time increased attention and offered children optimal opportunities to acquire the skills being taught. The data revealed that at recess, children have the chance to recharge; regain their focus; make new friends; learn new skills, including how to communicate and problem solve; and get their energy out so that they are ready to return to their classrooms refreshed and ready to learn. The data also revealed that recess offers children the time to socialize that is not readily available to them in our current society, with modern technology at their fingertips, and both parents in this suburban community working long hours. The current reality in this community includes decreased time for children to play outside after school or plan for visits with their friends. Teachers shared their renewed pedagogy in embracing recess breaks and discussed their own need for the breaks. The data showed evidence that as a result of recess, children of all ages, in kindergarten through fifth grade, were more creative, innovative and took turns as emerging leaders. Though the data revealed some challenges to offering increased recess breaks throughout the school day, the consensus of the participants was that the benefits outweigh the drawbacks. They also were in agreement with one another that the challenges can be overcome with the right leadership and shared educational philosophy. Participant K, the school social worker, summarized the value of recess breaks as they have been established in this elementary school, and as they have unfolded in the data collected:
In my years of experience, we have gone from an administration at one point that was every counted minute was for instructional time. From the minute the children walked into the door to the minute the busses pulled in to take them home, there wasn’t any time to be wasted. Now we’re playing and engaging, and we’ve gone the other way. I think it is a beautiful thing.
CHAPTER FIVE

Analysis, Synthesis, Conclusions and Recommendations

“The goal of education is not to increase the amount of knowledge but to create the possibilities for a child to invent and discover, to create men (and women) who are capable of doing new things.” - Jean Piaget

The purpose of this exploratory case study was to observe student behaviors prior to, during, and following a recess break in the school day and ascertain teachers’ perceptions of the impact of recess on elementary students’ social-emotional development and classroom behaviors. It was also conducted to explore how the implementation of recess breaks throughout the school day affects teacher pedagogy.

The results of this study validate the value of recess and play experiences for children and their teachers. Chapter Four contained the results of the observational study on first-grade students prior to and immediately following a recess break. It also shared the semi-structured interview data based on participants’ responses to the interview questions and the researcher’s field observations and analysis of what was seen and heard during various recess sessions on every grade level in one suburban elementary school in New York State.

The study of classroom behaviors exposed the reality that students were more focused and less fidgety following a recess break. Teachers’ responses revealed that recess was valuable for students’ social, emotional, academic, and physical development. It also revealed that teachers feel better about their pedagogy as a result of being permitted to implement recess breaks in between sustained instruction. In prior years, and as a result of NCLB and the Common Core curriculum, teachers were required to provide block periods of instruction, in some cases, up to 90 minutes for English
Language Arts and mathematics, even for young students. The literature review provided evidence that block time and more time in the classroom with minimal breaks for students is poor practice and a detriment to proper child development.

The purpose of Chapter Five is to present the recommendations from the participants based on the evolved themes presented in Chapter Four. The chapter includes the recommendations based on the data presented for each research question and themes that emerged from that data, the significance of the study to leadership, and implications for future research.

**Discussion**

This chapter contains discussion and future analyses to help answer the research questions posed for this study.

**Research question 1:** How does recess affect children’s classroom behaviors?

The results indicated that first-grade students became fidgety and inattentive if they were required to learn for long periods of time. Specifically, 29% of first-grade students were on task before a recess break, whereas 81% were on task following recess. Additionally, 63% of students were fidgety before recess as compared to 12% after recess. These results are aligned with the research that has theorized that children are cognitively immature. As stated in Chapter Two, the Cognitive Immaturity Theory (Bjorklund & Green, 1992; Pellegrini & Bjorkland, 1997) reminds us that children are more immature than adults thus they have a shorter attention span and have a larger desire to play (Bjorklund & Green, 1992).

**Research question 2:** What are teachers’ perceptions of recess breaks on children’s social/emotional development?
The perception of the participants in this study indicated that recess assists in the social development of children. Their use of pragmatic language was increased and their opportunities for learning how to effectively communicate to their peers and collaborate upon ideas was maximized through the social opportunities during recess and play breaks. Participants shared their perceptions that children seemed to have an increased sense of self and took more risks in the classroom as a result of the recess time. It was on the playground and during free time that children had a chance to make new friends and learn about themselves and their peers. Field observations showed that mixed age play offered older children the benefit of modeling for younger children, and younger children gained self-confidence by being able to play with older children. Participants shared that children were better able to resolve conflicts as a result of the recess time that afforded them opportunities to practice this skill. Cooperation was also heightened since children had time to learn how to maneuver this skill as well. The participants stated that when children have break time together in the form of unstructured recess and free play, they learn to cooperate, and tattling and intimidating behaviors decreased.

**Research question 3:** How does the implementation of recess periods between sustained instruction impact teachers’ pedagogy and practice?

Participants in this study indicated that as a result of leadership philosophy, shared decision making, and the implementation of recess breaks throughout the school day, they were better able to meet the needs of their students. They shared their own decreased anxieties and their calm approach to instruction. Teachers stated that they felt like they were approaching lessons in a manner that was more developmentally appropriate for their students as compared to years past when they had to account every
minute in class for instructional purposes. Overall, participants stated that their students are happier as a result of this shift in practice, and so are the teachers.

The data from this study align with much of the prior research conducted regarding recess. Participant responses agree with Pellegrini and Glickman (1989), who stated:

Recess is one of the few times during the school day when children are free to exhibit a wide range of social competencies—sharing, cooperation, negative and passive language—in the context that they see meaningful. Only at recess does the playground become one of the few places where children can actually define and enforce meaningful social interaction during the day. Without recess, the children lose an important educational experience. (p. 24).

The data also indicated what the National Scientific Council on the Developing Child (2004, p. 2) stated:

When feelings are mismanaged, thinking can be impaired. Recent scientific advances have shown how the interrelated development of emotion and cognition relies on the emergence, maturation, and interconnection of complex neural circuits in multiple areas of the brain, including the prefrontal cortex, limbic cortex, basal forebrain, amygdala, hypothalamus, and brainstem.

According to the interview responses, teachers and health professionals felt that recess offered children opportunities to manage their feelings through communication and building relationships. They also detailed what was found in the research of Abel & Danziger, et al. (2015) that although “most teachers believe that schools have a fundamental responsibility to educate the whole child, education policy has focused
disproportionately on high-stakes accountability strategies based on results from standardized academic achievement tests,” and that “the education gap can’t be closed unless and until schools commit to and become skilled at educating the whole child.”

The results also indicate what Lovat et al. (2011) suggested:

The idea that learning can be achieved through mastery instruction and testing, without reference to the physical, emotional and social ambience within which the learning is occurring, nor moreover to the levels of confidence and self-esteem of the learner, is similarly seen as potentially an obstruction rather than facilitation of learning. Such findings point to the need for pedagogy that engages the whole person rather than a “separately cognitive” person. In a word, the need is for holistic education.

Participants were clear in their belief that recess allows for social-emotional development and classroom behaviors that foster attention to learning. Generally, positive classroom behaviors directly affect academic learning and maximize cognition.

The mandates of the Common Core Learning Standards (and now the newly adopted Next Generation Learning Standards in New York), enforced by high-stakes tests, have led to dramatic changes in our classrooms, and according to the participants in this study, to the harm of our children. With a school’s very existence riding on the outcome of standardized tests for Grades 3 through 8, and with teachers’ jobs dependent on these scores, schools have been forced to narrow their curriculums to focus far too heavily on just these two subjects, neglecting science, social studies, art, music, and so much more. The participants shared their position that as educators we are remiss if we do not ensure that children, especially our youngest, are learning in
ways that nurture emotional health because, in fact, a strong emotional basis is the groundwork for the academics that will follow. The teachers’ perceptions were that emotional strength will allow a child to continue to strive even when he or she is frustrated. They posited that emotional well-being gives a child permission to make mistakes along his or her route to success.

The results of this study indicate that recess not only offers children the social and emotional growth and development opportunities they so need and desire, it also turns out that moving our muscles produces proteins that actually travel through the bloodstream and into the brain where they play pivotal roles in the mechanisms of our highest thought processes. With multiple growth opportunities for all children, it is evident in the data that a child’s growth, via recess, is just as important as academic teaching. In fact, the data asserts that recess is integral to maximizing academic success and improving student health. The participants in this study indicated that hen physical activity through play is relegated to being just a disposable, non-essential filler, our children suffer.

Over the years, American education has endured recurring curriculum transformation. Major modifications have occurred across the elementary curriculum. Schools and school districts have been constantly looking specifically at literacy and numeracy gaps since the No Child Left Behind Act (2001). State and federal governments use literacy and numeracy scores to determine school success. The crucial questions in the field of education are hyper focused on these specific academic achievements and not on the overall health and well-being of students. Since the beginning of formal schooling in America, multiple points of view have has existed on ways to instruct students and what success means for each individual child.
Conclusion

At this time, at both the federal and state levels, the American public education system has experienced a hyper-focus on increasing instructional time and over analyzing the results of standardized test scores to determine the success of schools and school districts. Historically, educators were able to prepare children for recognized career paths, yet we are currently preparing children for career paths that do not yet exist. There is a robust need to transform the values at the core of our pedagogy and reevaluate the opportunities that we offer to our students. The data collected in this study and the findings that have been discussed validate the need to transform the way we approach educating children.

According to the participants in this study, today’s mandates and heavy pressure on English language arts and math test scores in the United States have made fostering emotional growth an afterthought. They claim that the 21st century skills of collaboration, creativity, critical thinking, and communication are not learned with testing and drilling math and English language arts. These skills, as evidenced in the findings of this study, are solidified when practiced in the context of social and emotional learning; and participants felt it is long overdue that this learning be prioritized. As one educator (Clayton, 2017) noted, if our children had sufficient social and emotional learning opportunities, “We’d live in a better world with far less hate and far better social and emotional health.”

The data indicates that there appears to be a growing desire from educators for an effective way to educate children while creating highly engaged, life-long learners. In this new paradigm, by offering children time during the school day to experience recess
breaks, we offer them an education which heightens attention to learning and fosters social–emotional growth and development. Although there is a strong need for innovation in education and a paradigm shift which includes a change in pedagogy; many schools are hesitant to move in a transformational direction due to increased accountability on schools and school districts and unfunded State mandates. There seems to be a sense of resistance to change from school leaders as a result of the way our education system is currently designed. This is preventing them from making significant changes in pedagogical approaches that may be in the best interests of the children.

In moving forward with research-based methods of teaching that we know will improve children’s academic paths, we must abandon one-size-fits-all lesson plans and stop drilling to create high scores on year-end standardized tests. The paradigm in American education has shifted drastically over the last 20 years. Our approach to education has moved from one that emerged out of a theoretical framework that included developmentally appropriate practices including play, recess, and creativity to that of achievement and standardization. Curriculum and instruction have become scripted and somewhat robotic in an effort to ensure that teachers cover an overzealous scope and sequence, and relationships seem to have fallen by the wayside. Instead, children should be involved in play (especially younger learners), project-based and experiential learning, cooperation, collaboration, and open-ended inquiry. When children, regardless of their age, are happy at school and enjoy learning, the outcomes are optimal and they are able to determine their interests and talents and begin their journey to personal success.
Limitations of the Study

This study was conducted in a single elementary school in a large suburban district. Though it was an exploratory case study, it included a shift in pedagogy over a period of three years. Teachers varied in years of experience.

Recommendations for Future Practice

The traditional paradigm in education is powerful but not so much so that we should be unwilling to look at shifting the paradigm to be centered on what is in the best interest of the children. In looking at successful ways to improve the education of our students in America, leadership matters. Schools and school leaders need to take actions to reconfigure the educational environment that they create for students. In maintaining a flexible approach to teaching and learning, our teachers will better equip their students for the future.

Recommendations for future practice include several programs that offer children self-directed play before, during, and after school. The skills learned through recess and play undoubtedly have an effect on their attention to learning and cognition. More rapid, widespread progress is needed to avoid suffering from play deprivation and to heal children who are already suffering from a lack of play and recess at school (Almon, 2018). Federal, state, and local districts should develop play programs and outline policies that allow for recess and play to be planned and incorporated into children’s days (Stegelin, Fite, & Wisneski, 2015). Stegelin, Fite, and Wisneski (2015) shared the definition of play for policymakers from the Hampshire Play Policy Forum (2002) as:

An essential part of every child’s life and vital to its development. It is the way children explore the world around them and develop practice skills. It is
essential for physical, emotional and spiritual growth, for intellectual and educational development, and for acquiring social and behavioral skills. Play is a generic term applied to a wide range of activities and behaviors that are satisfying to the child, creative for the child, and freely chosen by the child.

Based on the results of this study, it is recommended that school leaders create zones in their schools that encourage recess, play, and physical activity. These data indicate that leaders should benefit from allowing teachers to make professional decisions that offer children time to get up and move in between lessons and to actively engage their students in hands-on activities and group activities and offer multiple recess and play periods each day (Stegelin, Fite, & Wisneski, 2015). There are some schools that have successfully adhered to these recommendations.

Research has indicated that there has been a disconcerting shift toward increased classroom time at the expense of physical education and recess that has created a detrimental effect on children (Murray & Ramstetter, 2017; Bayler, Bleeker, James-Burdumey, Fortson, London, Westrich, & Castrechini, 2014). The LiiNK Project (Let’s inspire innovation ’N Kids) is an ongoing research study inspired by the Finnish educational system. The goal is to improve the quality of the classroom and the whole child focus through three key strategies (Rhea et al., 2016):

1. Increasing the amount of time allotted during the school day for unstructured, outdoor play. Four 15-min recesses, two before lunch and two after lunch, totaling 60 min daily are implemented. Teachers are prohibited from removing any of the recesses daily for discipline issues or academic performance. Physical education classes cannot take the place of recess.
Unstructured recess for this intervention is defined as free play that is directed by the children themselves in a safe environment with no adult influence.” (Gray, 2013; Sahlberg, 2015).

2. Introducing a character development curriculum called Positive Action® (Positive Action® Inc, 2007) designed to be included as a part of the overall classroom content by grade level, which emphasizes seven character traits: empathy, respect, honesty, prosocial behaviors, engagement and disaffection with learning, bullying, and school connectedness. Integrating PA creates common social and emotional skill development throughout the school culture and creates a safer space to work and learn.

3. Providing three full day required teacher/administrator strategic trainings to prepare for the LiiNK intervention. The first training is focused on changing the teacher’s mindset related to being outdoors and taking time to re-energize the teacher and their students. The second training focuses on how to implement multiple recesses daily and teach the Positive Action curriculum. The third training orchestrates all of the strategies learned so that the intervention launch can be seamless.

In its first year, the LiiNK Project intervention showed preliminary support for the theory of play (Rhea et al., 2016). Rhea et al. (2016) found through anecdotal teacher reports that less bullying behaviors and more positive social interactions were observed on the playground among the students as a result of multiple opportunities daily to play through self-direction. In the same study, results showed that children were significantly less likely to misbehave in class, significantly more likely to be attentive,
and significantly less likely to be disruptive in the school setting as a result of the intervention. The structure for recess in the school schedule where the research for this study was conducted was similar in nature to that of the LiiNK Project.

School administrators have reported a perceived lack of time for multiple play breaks throughout the school day as being a major obstacle (Rhea & Rivchun, 2018). They also believe that recess limits instruction time to teach test specific material, therefore diminishing performance on assessments and reducing state and federal funding. Other countries have chosen to adopt a more active school environment, allowing time for recess and physical education without sacrificing academic achievement (Rhea & Rivchun, 2018). Leaders in American education should consider following the lead of initiatives such as The LiiNK Project and paradigms implemented by countries that are global leaders where education is concerned. There is much information surrounding the fact that adventure playgrounds are making a comeback around the globe, even though they have existed for over 60 years. The first known playground of this type where “waste material” was available in suitable large areas where children would be able to play with old cars, boxes, and timber took shape in Emdrupvej, Denmark in the mid-1940s as a place where young people could play freely without inciting the German occupying forces. It was in the United Kingdom—where play work has taken on a professionalized role—that the term “adventure playground” was born. Although adventure playgrounds are not widely known about in the United States, several have successfully existed in California for decades. As information about the value of adventure play has become more accessible through online media, individuals and groups across the country have begun to activate spaces for adventurous
play in urban and suburban areas through pop-up play days in public parks and rooted adventure playgrounds such as the Anarchy Zone in Ithaca, New York (Misra, 2018).

The adventure playground is emerging as an alternative to the “safe” play areas for kids, particularly in the U.S. and the U.K. Research has suggested that if children perceive that they are not obtaining challenging and interesting risky play opportunities in public play areas, they may seek these opportunities elsewhere (Brussoni, Olsen, Pike, & Sleet, 2012). Brussoni et al. (2012) suggested:

Research is emerging which considers optimal strategies for providing children with outdoor risky play opportunities that minimize hazards, such as adventure playgrounds.

These novel areas of investigation have the potential to open up many exciting avenues and represent an opportunity for epistemological growth, cross-disciplinary and international collaboration to foster optimal child development.

Initiatives such as the LiiNK project and adventure playgrounds should be seriously considered and implemented in varying types of public school settings to offer all children equitable opportunities for an unstructured indoor and outdoor play.

In their article “Time to Play, the Benefits of Recess,” Murray and Ramstetter (2012) discussed the concept of Peaceful Playgrounds, which was established in 1995. Peaceful Playgrounds is grounded in the principals of teaching conflict resolution, establishing clear rules and expectations, providing low cost equipment, and designing a play space that fosters interaction. Peaceful Playgrounds provides professional development training for staff and blueprints to assist in games that are self-directed and offer choices to students.
Playworks is another program that should be considered for future practice in schools and school districts. Playworks is a program designed to focus on safe play and physical activity throughout the school day to improve the climate in low income schools (Murray & Ramstetter, 2012). This program provides recess coaches to schools to assist teachers in better understanding the value of recess and play and to optimize the outcomes of this practice. Murray and Ramstetter (2012) stated that Playworks surveys have revealed a decrease in bullying behaviors and an increase in focus as a result of increased recess.

Recommendations for the future of American education include that it is essential for school district leaders to treat recess time as a child’s personal time and to make recess a mandated policy and practice in the best interest of all children.

**Recommendations for Future Research**

Research has indicated that recess and unstructured play are essential for children’s social, emotional, creative, and cognitive well-being (American Academy of Pediatrics, 2013; Barros, Silver, & Stein, 2009). Children’s experience, however, varies widely from school to school.

Future research should focus on the differences in recess mandates from state to state and the social, emotional, and academic outcomes of children based on those mandates. It should also focus on effects of indoor versus outdoor recess and child development. More research is also necessary regarding student learning and test taking success with and without recess. Future studies will have to examine further the impact of teachers and student gender on this practice.
According to psychologist Peter Gray (2013), play is the means by which children: (1) make decisions and solve problems, (2) learn to regulate emotions, (3) make friends, and (4) experience joy. Gray (2013) felt that play has declined from the 1950s to today. He contended that the lack of play over the years have had lasting and negative effects on children. A causal chain between the increase in depression and anxiety appears to be that with reduced freedom to play, children do not have a strong sense of control over their lives (Gray, 2013). Therefore, future research should focus on the rate of childhood anxiety and the extent of recess and playtime that children receive daily. Gray (2013) also explained, “One thing we know for sure about anxiety and depression is that they correlate strongly with people’s sense of control or lack of control over their own lives.” He also explained, “Being able to initiate and direct their own play is an important way for children to feel in control of themselves and their environment.”

Since we live in a society comprised of young “digital natives,” research should be conducted regarding increased technology, recess time, and the social competencies and emotional well-being our students are developing, or a lack thereof, as a result of the technological devices used by children in our society. Of great concern is the finding that “children who do not have the opportunity to be active during the school day do not tend to compensate after school” (Jarrett, 2014).

**Final Thoughts**

The next few years will set the stage for the next forty years in public education. To get to the root of what appears to be problematic, we first must define what is not working for our students and their teachers. State educational leaders, policymakers and legislators who influence and set policy and mandates for school districts should
reconsider the current paradigm in American education and seek out creative and innovative approaches that reestablish the school day in a manner that is developmentally appropriate for children. An increase in academic achievement and a love for school and learning is seen when students have more time to interact and learn from their peers through play-based learning. Offering students choice within their school day via recess fosters a sense of independence. In the best educational cultures in the world, it is the system that is responsible for the success of the student, not just the parent or the teacher. The culture of the society creates the system. According to the results of this study, it is time to depart from the antiquated blueprint of American education and look to the global approaches of the countries around the world who are consistent leaders in the areas of teaching and learning.

Ideally, schools in the United States need to abandon a testing-based curriculum for an interdisciplinary approach to learning, with thematic units of study and differentiated instruction to meet all types of learners. In doing so, students will be better prepared to become life-long, enthusiastic global learners. Interdisciplinary instruction promotes critical thinking and offers students opportunities to make deep connections across the content areas. With this comes increased student engagement in the learning process, with the outcome being greater learning (Fink, 2013). The key is to leave the mandates of the current system, which will allow students to engage in “divergent thinking,” meaning “generating multiple approaches to solving a problem” (Pantovic, 2012). In contrast, Common Core and its tests promote convergent thinking, where children find the one right answer to a question, as required for high-stakes testing. By investing in our teachers to help engage our children in ways that allow their full
academic growth, we facilitate divergent thinking and allow our kids to work creatively and collaboratively through problems that are meaningful to them, and not based on a one-size-fits-all curriculum. Through this innovative approach to education, children are able to connect, seemingly separate disciplines, in ways that more accurately reflect our world and their academic successes, and their personal engagement soars. With this shift in paradigm, teachers will be better able to offer students authentic learning opportunities and reflect upon teachable moments. The hypothesis here is that the first step in providing children with opportunities to refine and enhance skills that will assist them in their learning is reestablishing time for recess (Koerner, 2018).

When considering a shift in paradigm, leadership matters. Schein (2017) presents that we cannot understand Organizational Learning and planned change unless we consider culture as the primary source of resistance to change. According to Schein’s theory, if educational administrators “do not become conscious of the current cultures in which they are embedded, those cultures will manage them.” He also brings to light that change must be defined concretely in terms of the specific problem we are trying to fix, and that change may not be possible without cognitive redefinition whereby people will have to unlearn the former way of working to learn the new one. American education is ever-changing. If we are interested in meeting the needs of our students so that they can be successful citizens in a global society, educational leaders on the local, state and federal levels need to reevaluate the intended goals and the outcomes we want for our children.

In summary, as children move from the sandbox, to the classroom, to the board room, or to wherever their path to success leads them, play should be the cornerstone of
their education. As an American society, we must be concerned with how our children will become successful citizens in an ever-changing global society. The research is clear: “Playful pedagogy supports social-emotional and academic growth while instilling a love of learning” (Hirsch-Pasek and Golinkoff, 2008).
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Dear Lori Koerner:

The St John's University Institutional Review Board has rendered the decision below for The Impact of Recess on Children's Social/Emotional Development, Classroom Behaviors, and Teacher Pedagogy: An Exploratory Case Study of Elementary School Students at Play. The approval is effective from September 30, 2019 through September 29, 2020.

Decision: Approved

Selected Category: 7. Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

Sincerely,

Raymond DiGiuseppe, PhD, ABPP
Chair, Institutional Review Board
Professor of Psychology

Marie Nitopi, Ed.D.
IRB Coordinator
Appendix B

Dear Dr. Hynes,

I am writing to request your permission to conduct a study regarding recess and its impact on children’s social/emotional development, classroom behaviors and teacher pedagogy. This study is in partial fulfilment of my doctoral degree in Educational Administration and Supervision through St. John’s University.

This will be an exploratory case study. This study uses questionnaires, semi-structured interviews, and field observations, which will allow the researcher to understand teachers’ perceptions of recess. It is designed to elucidate what recess breaks can offer for children’s social, emotional and physical development as well as their classroom behaviors. It will allow the researcher to hear from the teachers and explicate their thoughts on the implications of recess and its effect on their own pedagogy and instructional practice. The methodological triangulation allowed for an understanding of how recess influences students’ development and behaviors within the classroom, and if it changes pedagogy and practice.

The findings of this study will offer educational leaders, teachers, the Boards of Education, parents and community members the data they need regarding the values of recess and holistic education and its impact on children’s social, emotional and cognitive growth, so that they can commit to making transformational change. The findings also illuminate how the factors surrounding this shift in pedagogy relates to student learning and development.

Please let me know if you approve this request. I look forward to hearing from you.

Warm regards,

Lori Koerner
Dear Parent/Guardian,

Your child has been selected to take part in a research study to learn more about the impact of recess on children’s classroom behaviors. This study will be conducted by Lori Koerner, Principal of Tremont Elementary School. The research will be conducted under the advisement of Anthony Annunziato, Ed.D, Associate Professor, Department of Administration and Instructional Leadership, St. John’s University. Select students will be observed in their classroom for one-minute intervals just prior to and immediately following recess over five sessions. The behaviors being observed are as follows:

- **W (work):** On-task behavior, doing assigned work, discussing work with a partner, attending to the teacher. Eye contact, looking at the teacher, was considered an indication of attending to the teacher.
- **F (fidgety):** Excessive movement, tapping, arm or leg movement, partly out of chair.
- **L (listless):** Head on desk, staring out the window, slumping or not attending, eyes shut.

This will be observational research and there will be no interference in classroom routines or risks to have your child participate in this study. All names and information will be kept confidential. Participation in this study is voluntary and you may withdraw your child at any time without penalty and it will not impact your child in any way.

There are no known risks associated with your child’s participation in this research. Although your child will receive no direct benefits, this research may help us to better understand the impact of recess on children’s classroom behaviors, specifically attention to learning. It will also assist in growing the programs and opportunities that we offer to children and gain a deep understanding of the needs of all children during the school day.

Confidentiality of your child’s participation will be strictly maintained by the use of numerical coding in lieu of using student names. Children’s names and identities will not be identified, as all behaviors will be statistically analyzed as a group, not as individual students.

If there is anything about the study or your child’s participation that is unclear or that you do not understand, or if you have questions or wish to report a research-related problem, you may contact Lori Koerner at Tremont Elementary School at (631) 687-8700, or through email at lkoerner@pmschools.org. You can also contact the faculty sponsor, Dr. Anthony Annunziato at annunzia@stjohns.edu. For questions about your child’s rights as a research participant, you may contact the Institutional Review Board, St. John’s University, Dr. Raymond DiGiuseppe, Chairperson, digiuser@stjohns.edu, 718-990-1955 or 718-990-1440.

Sincerely,

Lori Koerner
Principal

Please sign and return this permission form to your child’s teacher as soon as possible. Keep the top form for your records.

________ I have read the letter about the study of the impact of recess on classroom behaviors and give consent for my child to participate in the study.

________ I have read the letter about the study of the impact of recess on classroom behaviors and do not give consent for my child to participate in the study.

Child’s Name ____________________________________________

Parent’s signature________________________________________ Date ____________________
Dear Faculty Member,

You are invited to participate in a study on The Impact of Recess on Children’s Social/Emotional Development, Attention to Learning and Teacher Pedagogy: An Exploratory Case Study of Children at Play. This research is in partial fulfilment of the requirements for my degree of Doctor of Education through St. John’s University.

If you agree to participate, you will be involved in semi-structured interviews consisting of six questions regarding your perception of how recess impacts children’s development. Interviews will be audio-recorded using the Rev transcription application. All names will be anonymous and presented using a pseudonym.

If you are interested in participating, please contact me at Lorikoerner22@gmail.com. Thank you.

Lori Koerner
Please complete this short survey and submit so that we can continue to improve upon our structure and practice. Your participation in completing this survey indicates your understanding that this is a voluntary process and that there are no risks or consequences to you as a participant. Thank you, in advance, for your time and professionalism.

Classroom Teacher Survey Regarding Recess

Name (optional) _______________
What grade do you currently teach? ______
What grades have you taught in the past? __________
How long have you been teaching? ______
How long have you been teaching in this district? ______

1. How do your students respond to recess?

2. To what extent does recess time of day have on student behaviors?

3. To what extent does the number of recess breaks a day have on student behaviors?

4. To what extent does the duration of recess have on student behaviors?

5. To what extent does attention and classroom behavior differ (fidgety, listless, on task) before recess as compared to after recess?

6. What are the benefits to recess?

7. What are the drawbacks to recess?

8. As a result of recess breaks:
   A. What have you noticed regarding your students’ behavior?
   B. What have you noticed regarding your students’ social/emotional development?

Please include any other comments you wish to share on the other side of this survey. Thank you.
Interview Protocol- Faculty

1. Tell me about recess.
2. What have you noticed regarding recess and your students’ attention to learning?
3. What have you noticed about your students’ social skills as a result of recess breaks?
4. What have you noticed regarding recess and your students’ emotional well-being?
5. How has the implementation of recess breaks throughout the day affected your pedagogy?
6. Is there anything else you would like to share about the impact recess has had on your students? Timing? Duration?

Semi Structured Interview Protocol 2

How has the implementation of recess affected your pedagogy?
*Instructional practice, attitude, innovation, creativity, patience, responses to children, etc.

Can you speak to your perceptions of the impact of recess on student risk taking, collaboration and creativity?

What is your perception of the impact of recess on children’s ability to resolve conflicts?

What is your perception of the impact of recess on your students’ energy levels (energized, calmness) and ability to focus?

How would describe the changes in your students’ attitudes about school and learning since the implementation of recess? How would you attribute this to recess?
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</table>
Vita

Name

Lori Koerner

Baccalaureate Degree

Bachelor of Science, Dowling College, Oakdale, New York
Major: Elementary Education

Date Graduated

June, 1990

Other Degrees and Certificates*

Master of Science, Dowling College, Oakdale, New York
Major: Special Education

Date Graduated

June, 1994

Professional Diploma in Educational Administration, Dowling College, Oakdale, New York

Date Graduated

August, 2015