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## Beyond Four Walls: Outdoor Recess as a Complement to Classroom Engagement

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Beyond Four Walls: Outdoor Recess as a Complement to Classroom Engagement

by

Valerie A. Mulvenna

A dissertation submitted in partial fulfillment of the requirements for the degree of  
Doctorate in Education.

Hamline University

Saint Paul, Minnesota

May 2024

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To my husband, Matt, for your never-ending support of my dreams and goals. Thank you for your sacrifice, patience, grace, flexibility, and love; it meant more to me during this process than you will ever know. You will always be the teacher I admire and strive to be like. I see you as a benchmark for my self-improvement; your qualities and achievements as an educator inspire me to improve continually. This is just as much yours as it is mine.

To my son, Nicholas, thank you for understanding over the last three years why school sometimes had to come first. I have tried hard to model a good work ethic and show you there is always time for play and work. Thank you for “talking recess” with me—your insights are priceless. Now, best of all, Mommy’s done with homework.

“It is paradoxical that many educators and parents still differentiate between a time for learning and a time for play without seeing the vital connection between them.”  
-Leo Buscaglia

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## CHAPTER ONE

### Introduction

#### Overview

The sharp *clink* of glass hitting glass snaps our class's attention to our classroom teacher. My third-grade teacher conspicuously drops marbles into a Garfield cat-clad glass coffee mug. Our attention was immediately drawn to the sound. A low classroom chorus hiss of "yesss" could be heard throughout the room. Extra recess. One marble equated to one extra minute. Each Friday, those with completed classwork and a passing grade on the spelling test were rewarded with an additional recess break.

Thirty years removed from third grade, I am thankful to keep in touch with my third-grade teacher. A recent phone conversation had us reminiscing on school days past. While some finer details may be blurry, recounting those "non-curricular" classroom moments is still vivid for both of us. Despite not appearing as a subject on report cards, outdoor recess sparks diverse viewpoints among educators. I knew how I felt during those outdoor moments—relieved, excited, joyful, creative. So this phone call made me curious to learn her perspective, educator-to-educator. I asked her how many recesses we had when I was in elementary school. Two. And an extra recess for her class on Fridays if you complete your work. My teacher self-admittedly said she was "outdoorsy" when growing up, and as an educator, she recognized the value the outdoors had for students. While this was standard practice during my elementary years three decades ago, a pendulum shift in education occurred thereafter.

The formal education system has seen remarkable changes in 30 years. Throughout her 30-year teaching career, my third-grade teacher had mentioned that

outdoor recess had decreased over the years. Why? “The state was focusing more on academics and testing” (P. Key, personal communication, May 6, 2023). Other autonomous aspects of the classroom (such as cursive handwriting) that were left to the classroom teacher's discretion were also removed in favor of placing greater emphasis on core content academics. The lack of decision-making and classroom autonomy imparted a sentiment that professionalism had been removed from teachers (P. Key, personal communication, May 6, 2023).

We ended our conversation with the mutual feeling that the education system is like a pendulum. One day, we will see the pendulum swing back in the other direction of classroom autonomy, treating educators as professionals, and the re-emergence of outdoor recess. And cursive.

This dissertation seeks to contribute to the academic conversation regarding the significance and academic value of outdoor recess during the elementary school day. The main research question that drives my research is:

- *Does increased outdoor recess influence a student's classroom engagement?*

A secondary research question associated with this study is:

- *What are educators' perspectives regarding Illinois's passage of The Right To Play Every Day Act?*

My study aims to determine whether or not increased time outside influences a student's classroom engagement. I seek to understand how much students engage with classroom instruction and related activities before and after outdoor recess breaks. Increased instruction is gaining traction over letting students go outside (Sindelar, 2004). Some studies have demonstrated that this is counterintuitive.

## **Significance of the Study**

In 2008, the Center on Educational Policy analyzed the No Child Left Behind (NCLB) Act's impact on school recess and discovered that 20% of school districts nationwide decreased their school's recess time, with a 50% average decrease in recess minutes per week (Stapp & Karr, 2018). This reduction of weekly recess minutes is in favor of allocating additional math and English instructional minutes (Brusseau & Hannon, 2015). However, allocating additional math and English minutes since the NCLB's passage has shown diminishing returns as national reading scores have seen a slight downward trend, as the National Center for Education Statistics documented. This organization administers the Nation's Report Card (Carillo, 2022). This push for academic achievement is detrimental to children's break times (Wholwend & Pepler, 2015). The need for children to move and be active is well documented, not only for their physical health but also for their mental health. Empirical studies conducted by Bauml, Patton, and Rhea (2020), Pellegrini and Bohn (2005), and Stapp and Karr (2018) illustrate findings that unstructured outdoor recess is developmentally beneficial to school children. What is starting to become uncovered are the effects outdoor environments have on a child's physical, cognitive, and social-emotional well-being and development.

In response to decreased recess time and increased emphasis on academic achievement nationally, the Illinois legislature established the Right to Play Every Day Act in August 2021. This legislation mandates that all public schools serving Kindergarten through fifth-grade children must provide 30 minutes of unstructured (preferably outdoor) recess daily. The Act also prohibits using recess as a form of discipline unless participation poses a threat of endangerment and ensures that this is

documented in a student's individualized education plan or federal 504 plan.

Additionally, this law clarifies that recess does not count toward the required physical education time. Therefore, physical education minutes cannot substitute for the daily 30 minutes of recess (Illinois State Board of Education, 2022a).

### **Personal and Professional Significance**

My earliest outdoor school recess experience is a memory I hold from second grade. Our classroom windows overlooked the playground. The windows spanned the classroom's length, and my desk was in the first row parallel to those windows. Our classroom had views of the play equipment, blacktop basketball, tetherball courts, a baseball field on the north end, and a large open grassy field bordered by a wooded treeline to the east. I could smell the cut grass or damp soil when the windows were open. When my work was finished, I remember just staring out the window, regardless of whether other kids were playing outside. The school environment was enjoyable, but there was also a big pull for wanting to be outside.

My love of education and nature are inextricably linked. I was blessed to have teachers throughout my elementary and junior high years who not only took us outside but inserted themselves into our outdoor endeavors, whether playing kickball at recess, running the mile in physical education, or simply sitting and talking with different students. These positive experiences during my formative years greatly influenced my professional career.

I have been a professional outdoor educator and naturalist for 18 years, ranging in capacities from frontline outdoor education staff to hiring, training, and supervising full-time and part-time staff members and volunteers at nature centers and residential

outdoor education facilities. Professionally, I have dedicated my career to introducing the outdoors to children and adults to facilitate positive firsthand experiences with nature. The power I have seen the outdoors wield over others is remarkable. Over those 18 years working with and welcoming students to outdoor learning environments, I would have teachers cynically comment, “Good luck!” concerning their particularly rambunctious class, believing some students would be “out of control” outdoors. Afterward, the teacher would remark on how well-behaved their class was. I hear this time and time again. It is nothing I can take credit for; instead, it attests to the influence the outdoors has on a human’s mental and physical well-being. When teachers can comment positively about how their class is on an outdoor field trip with me, what would a student’s classroom engagement look like with increased outdoor recess time at school?

While I have fond memories of being outside with my friends as a child, this no doubt plays into a bias that being outside is relaxing and mentally restorative for all children. As a second and third-grader, did I have better concentration after recess? Would my answer be different from that of the classroom teacher? I would have liked to ask my seven-year-old self this question, so my personal experiences have shaped how I approached this project.

### **Researcher Worldview**

We construct our understanding and form meanings from our interactions with the world. The interpretations we form from these daily interactions and experiences make us who we are. Children’s interactions with one another in socially unstructured contexts are aiding them in laying the foundation of who they are and who others are within the context of their world. This interpretative epistemological approach recognizes that our

socially constructed meanings and new learnings are intricately intertwined.

Interpretivism acknowledges the dynamic nature of these constructs and emphasizes the importance of understanding their contextual and subjective nature (Brown, n.d.). This approach also allows us to navigate the complexity of socially constructed meanings and remain open to new learnings and diverse perspectives. This interpretivist framework informs my research as I seek to understand children's behaviors during unstructured outdoor time and their engagement in the classroom. I am most interested in how Illinois' The Right to Play Every Day Act can be observed in student behavior and classroom engagement. We construct meaning from our daily interactions with the world around us. In that case, it only makes sense that my research would reflect an in-depth understanding of school children's behavior and the professional narratives of classroom educators.

### **Researcher Positionality**

As an outdoor educator, I have found that experiential learning is one of the most effective tools for fostering deep understanding and personal growth. Children involve themselves with self-directed, experiential learning when they are amongst their peers, socially navigating the world around them and constructing their meanings *without* the aid of adults. I have discovered that meaningful learning—child-centered and child-specific learning that puts the child in control of decision-making and navigating their social contexts and constructs—can occur independently of classroom instruction. This is also to my disadvantage. Extolling the virtues of outdoor unstructured play is simplistic, and I need to be mindful of its real barriers. Also, not every child enjoys spending time outdoors or in an unstructured setting with peers. Studies that show the restorative nature of the outdoors fail to include the students who feel bullied and



ostracized or those with social cognitive disorders that can prove difficult or overwhelming when left in an unstructured outdoor setting. This is another reason I am motivated to witness how this unfolds for children and their classroom teachers.

## **Conclusion**

Growing up close to natural and open green spaces, I have benefitted from what nature provides. My childhood was steeped in it. I was also fortunate and privileged to have elementary educators who recognized outdoor recess as an integral part of the school day. Upon retrospection, recess is equated with my love of learning. Recess was not separate from the curriculum; recess was a part of it to me. This love of learning and the outdoors sparked a professional endeavor to become an outdoor educator. In my role, I facilitate experiential learning moments and introduce students of all ages to education beyond four classroom walls.

As such, the main research question that drives my research is:

- *Does increased outdoor recess influence a student's classroom engagement?*

A secondary research question associated with this study is:

- *What are educators' perspectives regarding Illinois's passage of The Right to Play Every Day Act?*

Following this chapter, a review of the literature highlighting the importance of outdoor green space to a child's cognitive, social/emotional learning, and physical domains and barriers to recess are presented. Chapter Three details the research methodology and theoretical framework and provides the case study design. Chapter Four presents the study's significant findings, and Chapter Five discusses the research findings and design limitations and offers recommendations for future research.

## CHAPTER TWO

### Literature Review

#### Overview

The American Academy of Pediatrics (2013) says the free play associated with school recess is integral to the daily 60 minutes of physical activity children need. The benefits of recess and time spent outdoors have been widely documented. Illinois is one of several states nationwide that have protected school recess by mandating 30 minutes of daily unstructured play for Kindergarten to fifth-grade students (International Play Association, 2021). This new 2021 Illinois law directing two 15-minute recess breaks is an impetus of this dissertation to examine the effects of recess on student engagement.

The literature review shapes the framework for my research questions,

- *Does increased outdoor recess influence a student's classroom engagement?*

A secondary research question associated with this study is:

- *What are educators' perspectives regarding Illinois's passage of The Right to Play Every Day Act?*

The following sections provide a review of the literature supporting the research questions. This literature review aims to offer an overview of the concepts of recess and play, emphasizing the significance of green space and recess in promoting children's cognitive, physical, and social-emotional well-being. Additionally, it will examine the obstacles that hinder children's access to recess and explore the impact of Illinois' Right to Play Every Day Act on improving this issue.

#### Recess and Play Defined

At its basic definition, *recess*, as defined by London (2019), is a “brief interlude for relaxation between periods of work, or in other words, a break” (p. 3). However, there is not 100% consensus on defining play within the context of educational research. Emerging research demonstrates consensus that recess plays an integral role in the education and development of the whole child.

Many scholarly interpretations of play exist, but not all researchers agree on a particular definition. What constitutes play is debatable, especially when defining play for its measurement in scientific studies. According to Colliver et al. (2022), “Play’s elusiveness from definition has often been explained by the ‘ambiguity of play’ and the paradoxes it generates (e.g., being imaginary but simultaneously completely derived from reality) (p. 149).” When children are given unstructured play time, especially outdoors, play is more creative and stimulates their curiosity (Yeh et al., 2022). Creativity, concentration, impulse inhibition, better coping mechanisms, and cooperation can be witnessed in children playing outdoors (Chawla, 2015). If this is what schools hope to achieve with their students, outdoor play should not be overlooked.

### **Impacts of Green Space**

Restorative environments are typically natural landscapes. Natural landscapes have been proposed to restore a person’s attention from the buildup of constant stimulation from the built environment (Berman & Kaplan, 2010). In 1989, Kaplan and Kaplan proposed the attentional restoration theory (ART), which asserted that urban environments are designed to capture a person’s attention, thereby creating excessive stimulation (as cited in Craig & Pearson, 2014). By nature of being away from the built environment, a person can feel a “sense of escape from the stressful demands of daily

life” (Craig & Pearson, para. 3). Interestingly, further studies have shown that ART can be achieved through other settings with man-made features, such as monasteries, residential and leisure environments, and even photographs and videos of natural areas (Kaplan, 1989). This suggests that one does not need direct experiences or access to natural environments to have a positive attentional restoration (Craig & Pearson, 2014). Views of nature, whether you are physically involved or viewing it through windows, are healing.

Children spend the majority of their week in school, and up to 73% of their school time is sedentary (Bartholomew et al., 2018), which could affirm that more time spent outdoors in unstructured play could translate to enhanced attention, impulse control, and a decrease in disruption in the classroom. Similarly, the impulsivity, shortened attention span, and hyperactivity associated with Attention Deficit Hyperactivity Disorder (ADHD) in children has been shown to lessen when time is spent in outdoor green spaces (Kuo & Faber Taylor, 2004). The prevalence of ADHD in children cannot be overstated, as Wolraich et al. identify this as the top neurobehavioral disorder (2019).

### **Recess and Cognition**

Historical trends in the American educational landscape have seen a paradigm shift in public school education, from a focus on rote memorization in the 1800s to today’s emphasis on the education of the whole child (Spring, 2020). Some may argue that the original tenets of late-1700s education are still pervasive in today’s educational landscape: “[in Thomas Jefferson’s era] ...schools were called on to educate future citizens” (Spring, 2020, p. 10). While an original educational tenet may remain, how school districts educate their future citizens has changed. Project-based learning and

STEAM (Science, Technology, Engineering, Arts, Math)-focused curricula are now more prominently found throughout classrooms in America (Amulla, 2020). Holistic approaches to education have been witnessed, and the correlation between recess and cognition has been well documented (Pellegrini & Bjorklund, 1997; Ramstetter & Murray, 2017).

Numerous studies have revealed a connection between outdoor time and heightened cognitive development, as evidenced by increased brain density within areas related to cognition in children (Sugar, n.d.). Furthermore, recess has been positively correlated with improving executive functioning skills and academic performance (Bauml et al., 2020; Yogman et al., 2018).

Studies have demonstrated a correlation between recess and enhancing cognitive processes, particularly executive functioning skills. Recess has also been linked to improved academic performance (Bauml et al., 2020; Yogman et al., 2018). Allowing children the opportunity benefits their executive functioning skills, which are highly important in the 21st-century job market (Blair & Raver, 2016). As Garner et al. (2018) stated, “Play is fundamentally important for learning 21st-century skills, such as problem-solving, collaboration, and creativity, which require the executive functioning skills that are critical for adult success” (p. 2). Recess is a key method of incorporating play into the school day. Research suggests that increased recess time is associated with better academic performance as students progress through their education (Garner et al., 2018). So, the more we can thoughtfully integrate recess into the school day, the more opportunities children will have to practice these crucial skills.

## **Recess and Physical Health**

Pellegrini (2005) stated that a child's physical activity throughout their school day is minimal, as classroom work is typically sedentary (as cited in Simons-Morton et al., 1990). The World Health Organization recommends 60 minutes of daily physical activity for children ages five to 17 to meet minimum health guidelines (2011). Since elementary-aged children are in school for an average of six hours per day, recess is a way to account for the recommended physical activity guidelines.

According to Hannus et al. (2018), implementing recess in the school day can account for four-and-a-half to 40% of a child's recommended daily allotment of physical activity. This increase in outdoor physical activity can also lead to children sleeping longer and more restfully during the night (Coyle, 2011). Sleep disruptions and deficits can adversely affect children during their school day, impacting their performance in the classroom, such as difficulties with concentration, periods of hyperactivity, and defiance (Coyle, 2011). According to a study conducted by the Rensselaer Polytechnic Institute's Lighting Research Center (as cited in VOA News, 2010, 1:37), children spending time outdoors during the morning hours were able to "re-tune their body's clock" and were able to fall asleep earlier.

A study conducted by the Optometrists Network found children spending time and playing outdoors can reduce the progression of myopia (nearsightedness) and can have up to a 14% decrease in its development by spending an average of 60 minutes outdoors (Lazarus, 2014). Attention to this topic has been focused on play and screen time at home, but I also contend that the amount of time spent on electronic devices in the school setting should also be considered within this context.

Children involved with outdoor play also have the opportunity to engage in activities that promote gross and fine motor development (Fawcett, 2022). The outdoors offers plenty of modes and pathways for children to practice running, jumping, throwing, pinching, and grasping. While these motor developments can be practiced in physical education, it is worth noting that gym classes are highly structured academic classes and do not equate to the unstructured play that outdoor recess offers (Ramstetter et al., 2010). Offering more time outdoors can increase a child's confidence and coordination by promoting self-directed physical play; as Pica (2008) states, "A child who feels physically awkward and uncoordinated is going to avoid movement" (p. 2).

### **Recess and Social/Emotional Development**

Recess can foster relationship-building and communication skills among peers. Emerging from the COVID-19 pandemic brought the realization that going outside has mental restorative benefits for children and adults alike (Fernandez et al., 2022). During the height of the pandemic, schools were faced with remote learning and social distancing. This abrupt change in socialization and heightened isolation saw an increase in mental health decline in students (Cost et al., 2021). During the pandemic, many teachers and school administrators became acutely aware of accounting for social/emotional learning, as a child's mental well-being directly impacts their ability to be involved with and learn within their school environment (Benítez et al., 2020).

Additionally, children in unstructured, self-directed play choose their peers independently and are not put into social settings by an adult. Recess offers space for children to negotiate their social skills with one another, thereby enhancing their social cognition. According to Bauml et al. (2020), "...recess has been shown to benefit children

by affording them the freedom to practice numerous social skills such as cooperation and negotiation. Thus, peer interactions such as those at recess may foster children's social competence" (pp. 507-508). These social navigations allow peer-to-peer cooperation and conflict resolution to be transferable to classroom settings and provide distinctive contributions to students' social-emotional development and creativity (Ramstetter, et al., 2010).

These social competencies that are child-led and negotiated at recess can have positive effects on a child's emotional competencies, such as "empathy, compassion, problem-solving, emotional regulation, and coping strategies" (p. 114). These five social-emotional competencies have been demonstrated as predictors of student engagement with school and a precursor to academic success (Durlak et al., 2011). Thus, if these competencies can be child-initiated and led during times of play and can be an antecedent of academic success, it only seems logical that opportunities for unstructured play should be thought of as a complement to the social-emotional curriculum.

### **Recess and Classroom Behavior**

Empirical studies have demonstrated that recess can positively impact student engagement and productivity, and adding to the already-established recess may increase student attentiveness (Bauml et al., 2020). Teachers may see a decrease in off-task and undesirable behaviors in students when they are allowed to take multiple outdoor breaks throughout the school day, and having these breaks spread throughout the day can restore classroom readiness and on-task behaviors that can lead to a decrease in disciplinary issues (Bauml et al., 2020). However, it is essential to note that switching tasks or participating in physical education classes does not offer students the same mental break



as recess (Barros et al., 2009). Recess may address and assist with a student's "cognitive overload" (Chang & Coward, 2015, p. 15), preventing distractions during classroom instruction.

With a strong emphasis on high-stakes testing, a student's attentiveness and on-task behavior are critical in the classroom. Teachers give students "brain breaks" throughout the day, but these indoor structured movements may not have the same effect as outdoor unstructured breaks. Many teachers give students a "brain break" by employing digital movement videos (such as Go Noodle<sup>®</sup>) to get students on-task and readiness behavior back on track. A 2020 study by Bauml et al. found that participation in an unstructured recess break gets students back on task quicker, and their attention is sustained longer than in an indoor structured video. An interview in Bauml et al.'s 2020 qualitative study documented a classroom teacher saying, "We would have to stop...we would have to do a Go Noodle [dance], just to get them, you know, [to] zone back in" (p. 511). With the additional recess breaks, teachers indicated that students' lesson focus was more significant, and there was no need for additional in-classroom "brain breaks." Researchers Pellegrini et al. (as cited in Barros et al., 2009) conducted studies revealing that students subjected to prolonged classroom instruction exhibited reduced attention and less effective work.

Additionally, in Shanghai, China, elementary school students have a 10-minute recess for every 40 minutes of classroom instruction, constituting 40% of their school day (Chang & Coward, 2015). Similarly, Finnish schools have 10 to 15-minute recess breaks after 45 to 90 minutes of classroom instruction for first through ninth-grade students (Haapala et al., 2014). Both school systems have some of the highest student achievement

rates worldwide. While recess is only one factor, these two school models show that decreasing or eliminating recess is not justified to boost academic achievement.

### **Barriers to Recess**

Currently, no federal mandate requires recess to be a component of a child's school day. During the 2005/2006 school year, local educational organizations participating in the National School Lunch/Breakfast programs were under obligation to publish a Local School Wellness Policy (USDA, 2022). The Local School Wellness Policy mandated official documentation of objectives for nutrition education, physical activity, and additional school initiatives aimed at fostering student well-being (Local School Wellness Policies (LWP): Comparison Chart of 2004 vs. 2010 Requirements, 2013). However, recess was not explicitly identified as being part of school wellness. This means the frequency of recess, if offered at all, is left to the discretion of individual school districts. School districts face many recess barriers without a federally-guided mandate for implementing school recess. The barriers are discussed further in this section.

Traditionally, public schools were not designed to focus on unstructured play. Spring (2020) stated, "...public schools are used to advance political and economic ideologies that do not improve the condition of human beings" (p. 5). School days are highly regimented, with more emphasis on academic rigor than recess. Spring (2020) noted that most of the United States' educational systems are test-driven. Patchen et al. (2022) similarly indicate that school districts face pressure to prepare their students for academic testing.

Canadian school districts have identified multiple barriers to recess, ranging from lack of space or access to untrained staff and outdated practices (McNamara, 2021). Almost a decade earlier, the Illinois State Board of Education (2012) cited “space [facilities], safety and security, supervision of recess activities, and time during the school day” as barriers to schools implementing recess (p. 4).

These similar barriers across states and international borders are corroborated by a recent empirical study published in 2022. Patchen et al. (2022) identified 33 barriers to recess as part of their research project on increasing elementary recess minutes. The 33 individual barriers the study found were coded into five themes. Patchen et al. (2022) identified these five themes: overlapping barriers limit the opportunities [for time spent outdoors]; the school-wide schedule for staff and instruction; equity issues affect outdoor opportunities; extra time for instruction and support was needed to make it [time spent outdoors] work; and, factors beyond the control of the classroom teacher limit opportunities.

### ***Limiting Opportunities***

Patchen et al. (2022) emphasized that children faced multiple barriers hindering their outdoor time, including inadequate space, safety concerns, and maintenance issues. Moreover, according to London and Standeven (2017), school administrations often lack specialized training in school recess's health and safety aspects, highlighting the need for intentional strategies and a comprehensive needs assessment to ensure positive outdoor recess experiences.

### ***School Scheduling Conflicts***

Whether a school is small or large, mastering the task of scheduling each class for daily learning and activities can be complex. School staffing and logistical considerations outside anyone's control (e.g., inclement weather) can disrupt normal school operations. School administration can curb recess scheduling conflicts by more intentionally scheduling a school day. A commitment to recess implementation begins with school leadership, which can then engage the school community in its support.

A 2017 "Strategies for Recess in Schools" document by the Centers for Disease Control and Prevention offered strategies for school districts to implement daily recess. This guidance recommends that elementary schools have 20 minutes of recess daily and middle and high school students have a physical activity period not provided through physical education classes. The Centers for Disease Control and Prevention acknowledge that intentional planning of recess into the school day is necessary; there are slight changes in school processes that can be implemented immediately, while others may require long-term implementation.

### ***Equity Issues***

There is no federal mandate regarding school recess. While there are recommendations concerning recess at the federal and state levels, school districts nationwide implement their own policies and procedures concerning daily recess. This lack of uniformity can yield equity concerns for students with disabilities and schools in large and low-income areas.

Ozenbaugh et al. (2022) documented a study interviewing parents about their perceptions of school recess and found a higher victimization rate if their child had a

disability. The study discussed ways school recess can be more thoughtfully designed and administered for students with disabilities. Specifically, parents noted that they should “decrease instances of victimization experienced at recess, ensuring access to recess time, and creating a positive and enjoyable social environment for children with disabilities” (p. 8). Future advocacy calls for quality recess rather than quantity for students with disabilities.

Research by Thompson and London (2023) during the 2021/2022 school year found disparities in daily recess offerings across California school districts depending on the size and economic status of the district. Barros et al. (2009) documented this unequal access by analyzing the Early Longitudinal Childhood Survey data from 1998-1999. The study reported that 41% of Black and 62% of Hispanic children had recess, while 77% of White children had access to recess.

Policies and practices regarding school recess can be implemented without oversight. These studies highlight the need for annual monitoring and/or reporting to ensure equity and access to recess for all school children, regardless of ability, race, or economic status.

### ***Increased Instructional Time***

Approximately 650 schools nationwide had extended school days during the 2009 school year. In 2016, as many as 1,500 school districts had longer school days (Hanover Research, 2018).

There has been some debate as to whether increasing instructional time would have a positive impact or if it would yield diminishing results. Proponents of increasing instructional time citing studies pre-2009 demonstrating “neutral to positive effects” (p.

7481) have been argued to have weak methodologies (Andersen et al., 2016). Opponents contend there would be a rise in behavioral incidents and boredom. In 2013, the Danish Ministry of Education funded a large-scale randomized trial to investigate if increased instructional minutes in fourth-grade classrooms equate to improved learning (Andersen et al., 2016). This study concluded that there is a “significant positive effect” on student achievement. The researchers acknowledge that additional instruction time would require higher self-control from students. Classroom teachers who followed the prescribed curriculum without a high degree of teacher discretion found two problematic areas: boys exhibited less self-control, which increased behavioral problems, and non-Western students received no benefit from the increased instructional time (Andersen et al., 2016).

Whether increasing a school day to accommodate learning needs and the effort to decrease what educators need to “fit in” to a typical school day will still have its proponents and skeptics. Researchers contend that instruction quality is more significant than quantity (Hanover Research, 2018). What is noted is that an increased school day poses no detriment to students.

### ***Factors Beyond Control***

Scheduling, core content requirements, and safety policies were considered limiting factors beyond the classroom teacher’s control (Patchen et al., 2022), as one teacher in the study remarked:

we feel the pressure [to spend significant time on] reading and writing and math and so many other things that you try and embed in, it still becomes one more thing. So at times you feel that you have more space to put it in, but sometimes [we feel like] ‘oh my god I can’t do it’ (p. 14).

While the teachers interviewed did comment that they felt they had a considerable amount of autonomy in their classrooms, district and state guidelines still had to be met.

### ***Shadow Discipline***

There is also a barrier to recess that students face that is controlled by the classroom teacher. As presented in a Texas study, recess is sometimes withheld from students as a disciplinary consequence, sometimes referred to as “shadow discipline” (Mader, 2022), where it does not have to be formally reported, unlike suspensions or expulsions. Other forms of so-called shadow discipline include having children stand outside the classroom, eat lunches silently, walk laps, sit next to the teacher during recess, et cetera. A 2009 Robert Wood Johnson survey found that 77% of teachers reported withholding recess from elementary students as a disciplinary measure (Memorial Hermann Community Benefit Foundation, 2018). It was the most common form of discipline in Texas elementary schools, according to a 2019 report (Texas Appleseed, 2019). As stated by the 2015 study conducted by Jarrett et al., “Boys, specifically black boys, were most often deprived of recess for infractions, including showing defiance, not finishing their class work, and not bringing a signed note from home” (p. 101). A disproportionate number of disciplinary actions are taken against recess, viewed as a method of control or a tool for good behavior. With no state or federal mandate protecting recess as a right of children, some may argue that this form of punishment will continue and perpetuate against students who would benefit from what recess offers the most.

### **Illinois Public Act 102-0357, the “Right to Play Every Day”**

Passed in 2021, the Illinois General Assembly amended the School Code by passing into law Illinois Public Act 102-0357, colloquially known as the Right to Play

Every Day Act, to require all Illinois public schools to implement thirty minutes of unstructured play to students in Kindergarten through fifth grades daily (Illinois General Assembly, n.d.). These 30 minutes must be supervised, child-led, and unstructured without electronic devices. If schools elect to hold recess indoors, it must be in a space that promotes physical activity. This unstructured playtime will be divided into two 15-minute breaks throughout the day.

Illinois became the tenth state in 2021 to require mandatory daily unstructured recess for children. Other states requiring daily recess are Arizona, Arkansas, Connecticut, Florida, Missouri, New Jersey, Rhode Island, Virginia, and West Virginia (National Association of State Boards of Education, n.d.).

Introduced in January 2023, Washington became the next state to initiate state legislation mandating recess as part of the school day. Senate Bill 5257 directs the state board of education to enact a policy that would provide 45 minutes of recess for elementary students, encourage recess before lunch, and ensure physical activity is accommodated during the middle and high school years. Washington State Senator Nobles commented, “Kids not only deserve play, it is critical for their development” (Burton & Westerlind, 2023, para 2). Five additional states (Minnesota, New Mexico, New York, Oklahoma, and Pennsylvania) are expected to introduce House or Senate Bills related to school recess in 2023 (Burton & Westerlind, 2023). Understanding the benefits of recess and protecting a child’s right to play seems to be garnering the attention of lawmakers. While recess advocates recognize its importance, educators may view this as another legislative mandate to be put on their already full plate.



## **Conclusion**

This chapter reviewed pertinent literature on unstructured outdoor play and what outdoor open spaces afford elementary school children in all developmental domains—cognitively, physically, social-emotionally, and behaviorally. Next, it highlighted Illinois as the most recent state to pass legislation requiring 30 minutes of unstructured play daily. Finally, the barriers discussed were the limiting factors, school scheduling conflicts, equity issues, extra instructional time, factors beyond educators' control, and shadow discipline.

Studies of the benefits of recess on elementary school children have indicated positive findings. However, whether this conclusion applies to doubling the recess elementary school children receive is still being determined. My study, which will use a mixed methods approach to gather baseline data regarding Illinois's "Right to Play Every Day" law, aims to contribute to the academic conversation about the relationship between outdoor recess and a child's engagement with classwork. Chapter Three discusses the research design, theoretical framework, the study's setting, participants, and evidentiary rationale.

## CHAPTER THREE

### Methodology

#### Introduction

This research will examine children participating in more than one outdoor recess to determine whether or not increased time outside influences a student's classroom engagement.

In August 2021, Illinois enacted legislation (colloquially known as the "Right to Play Every Day" Act) that requires all Kindergarten through fifth-grade students to have two 15-minute daily recess breaks. These recess breaks should be outside and unstructured, ideally. If inclement weather or other uncontrollable circumstances prevent these breaks from being outdoors, indoor alternatives must allow for physical activity (International Play Association, 2021). Having recess take place outdoors should not be understated, as nature contact greater than or equal to two hours per week has positively affected people's well-being (White et al., 2019). While still in its infancy, this landmark legislation has encouraged my interest in gathering baseline data in a mixed methods approach.

This chapter introduces the research methodology, the theoretical framework of the study, its rationale, and the participants and setting. The chapter concludes with processes regarding the data collection and analysis methods.

My main research question asks:

- *Does increased outdoor recess influence a student's classroom engagement?*

A secondary research question associated with this study is:

- *What are educators' perspectives regarding Illinois's passage of The Right to Play Every Day Act?*

## **Research Paradigm**

This mixed methods research will utilize a case study. This is my chosen approach because I want to capture a snapshot of a phenomenon as I obtain observational student data and the perspectives of classroom teachers. Utilizing Time on Task classroom observation to document student behavior versus relying solely on federal standardized test score data or teacher inferences on student behavior and engagement allows for a broader picture and accurate representation of classroom engagement and how attuned students are to the task(s) in front of them. Employing research interviews as part of the qualitative design attempts to understand the classroom teacher's point of view regarding outdoor recess and uncover the meaning of their professional experiences (Brinkmann & Kvale, 2015).

This study's theoretical framework utilizes Attention Restoration Theory (ART). Kaplan (1989) defines ART as a person's concentration and tiredness that can be improved by time spent in or looking at natural environments. The limited time you can sustain concentration on a specific task will result in "directed attention fatigue" (p. 179). It also appears that adults and children do not receive the same restorative cognitive benefits from spending time in natural environments (Stevenson et al., 2019); therefore, it is essential to employ both qualitative and quantitative approaches to support this study's evaluation of a new policy change (Creswell & Creswell, 2018).

## **Research Paradigm Rationale**

My study aims to determine whether or not increased time outside influences a student's classroom engagement. Additionally, this study examines educators'

professional narratives regarding their thoughts on the “Right to Play Every Day” Act and how it impacts their daily classroom instruction. A mixed methods design utilizing concurrent triangulation allows two research methods to support the observational and interview findings (Biddix, 2009). Diverse perspectives from teachers and student observational data were explored. Both the quantitative and qualitative data were collected simultaneously. Each data set was then analyzed independently, and the results were compared. Additionally, the mixed method design aided in evaluating the success of a policy or program (Creswell & Creswell, 2018).

### **Setting and Participants**

This research took place in Illinois in a primarily rural setting, serving approximately 1,750 students in grades K-12. Sixteen students in a third-grade classroom participated in the study. An elementary classroom was desirable for the study, as recess is an already established part of the school day. The school district's superintendent proposed the school, and the building principal identified a teacher who expressed interest and was willing to participate in the study.

The school district's racial/ethnic diversity is self-identified as 61.2% White, 30% Hispanic, and 0.9% Black. At the same time, Asians and those representing two or more races/ethnicities have been redacted by the school district to protect anonymity. The school's racial/ethnic diversity is self-identified at 54.5% white and 38.8% Hispanic, and those representing two or more have been redacted by the school district (Illinois State Board of Education, 2022b).

Four elementary classroom teachers from Kindergarten to fourth grade and one elementary administrator from the participating school district participated in a semi-structured interview.

### **Ethical Considerations**

Working with children comes with its own unique challenges and ethical considerations. I was mindful of this before stepping into the classroom to begin data collection. There is an assumption of power an adult has over a child, especially within educational environments. Since the data collection was in a school setting, I wanted to be sure the students knew who I was before entering their classroom community for six weeks. After receiving permission from the district office and elementary school to conduct my research, I contacted the classroom teacher and introduced myself. I also provided my professional and educational background information to the teacher to be sent home to the parents/guardians. Before starting the observation period, I visited the classroom and introduced myself to the students. In developmentally appropriate terms, the study was described, and students were allowed to ask any questions. I also stated that while I would be “watching them in their classroom,” I was not there to report their behavior to their teacher, nor would I be able to step in and assist with answering questions or classwork.

The students were informed that, despite their guardians signing a permission form, their personal assent was also requested. Those uncomfortable with being observed would be excluded from the study, regardless of parental consent. The students were encouraged to discuss this with their guardians or classroom teacher. In line with IRB guidelines for parental permission, which allow parents/guardians to terminate their

child's participation at any time during the study, the same option was extended to the students themselves.

### **Data Collection Tools**

I used semi-structured teacher interview questions and performed classroom observations documented on an attention observation form modeled after research conducted by Stapp and Karr (2018).

Student observations occurred twice a week for six weeks. An attention observation data sheet was used for each 15-minute pre- and post-recess break observation, totaling four daily observations and 24 observations during the six weeks.

### **Data Collection Methods**

The primary data collection methods were on-task observation forms and semi-structured interview questions.

Since this research focuses on student engagement with classwork before and after two recess breaks, I used the Time on Task observation method to look for signs of student engagement. According to Knight (2007), research indicates that in highly effective classes, students should be actively engaged in their tasks for at least 90% of the time.

My role as the researcher was to be as minimally intrusive as possible. As cited in Bhattacharya (2017), Dewalt and Dewalt (2002) describe minimally intrusive observations as "peripheral membership," whereas I documented unfolding events from the sideline. The classroom teacher, students, and other faculty and staff knew who I was and why I was present, but I did not play an active role in any classroom function.

Before the observation period, I visited the classroom so the students had an opportunity to ask questions regarding the study. I offered reciprocity in answering their questions openly and honestly at a developmentally appropriate level. This visit was significant for two reasons: to garner rapport and familiarity. There can be an unspoken hierarchy or power over adults and children. During my visit, I explained to the students that even though I am an adult in their classroom watching their behaviors, I would not be correcting them or “tattling” on them to their teacher. I wanted the students to see me as an innocuous observer who did not pass judgment and asked them to behave as usual.

### ***Student Observation***

The six-week observation period of this study was adapted from empirical research utilizing controlled structured observations in an elementary classroom (Stapp & Karr, 2018).

I utilized a clipboard, a pen for notetaking, a student observation data recording sheet, a highlighter to indicate a student’s on or off behavior on the recording sheet, and a tactile timer via the smartphone application Virtual MotivAider<sup>®</sup>. I set up the Virtual MotivAider<sup>®</sup> application to signal when it was time to observe another student. To ensure that each student was observed within each minute for the 15-minute observation period, the application was paired with my AppleWatch. I received a vibration notification that served as an indicator for observing another student. These Virtual MotivAider<sup>®</sup> alerts were delivered to my devices silently to not disrupt the learning environment.

Students’ procedural engagement (Spanjers et al., 2008) was assessed, as this behavior can be observed during learning. Student observations occurred during instruction time 15 minutes before a recess break and 15 minutes after a recess break.

Observations only occurred during instruction and concluded before transition times. On-task and off-task behaviors were observable, avoided a high degree of inference, and were adapted from the Minnesota School Social Workers Association (n.d.).

**Table 1**

*Observable On and Off-Task Behaviors*

<b>On-Task</b>	<b>Off-Task</b>
Appropriate behavior for the classroom	Doing something that is not allowed (as outlined in classroom rules)
Meets teacher expectations or acceptable behavior in the classroom	Out of seat when not permitted
Eyes on work	Talking out/blurting out
Writing or group responding at appropriate times	Doing something inappropriate (as outlined in classroom rules)
Eyes on teacher	Not following teacher directions
Eyes on the student who is responding	Motor behavior, e.g., playing with something
Eyes on visuals used by teacher	Talking when not allowed
Doing as expected even if accompanied by body movements	Passive staring
	Working on the wrong assignment

Students were observed every 60 seconds for 15 minutes utilizing the whole interval method. This particular observation method records behaviors if they occur during the entire observation period. For example, if 14 students were present during the observation period, each student was observed for 4.3 seconds. If all 16 students were



present, each student was observed for 3.75 seconds. These short recording intervals were desirable, as Briesch et al. (2018) assert that behavior estimation is more accurate.

### ***Teacher Interviews***

Interviews were conducted with elementary school teachers within the district. Each teacher participated in one interview that utilized semi-structured questions regarding their thoughts on the recent passage of Illinois's "Right to Play Every Day" Act, how it impacts their instruction and daily schedule, and their thoughts on recess overall.

The educators interviewed received an overview of the study, signed a consent form, and were willing participants. Participation could be rescinded at any time, even after the interview's conclusion. All names have been redacted to protect the anonymity of the interviewee and the school district.

Interviews occurred during the same six-week timeframe as the student observations. Interviews were recorded using a handheld digital recorder and uploaded to a secure computer file. Otter.ai was used to transcribe the audio files.

### **Data Analysis**

For data analysis, a notation was made on the observation form if the recess occurred indoors or outdoors. Regardless of the recess location, observations were made pre-and-post recess breaks. The quantitative data was analyzed using three methods: comparing the percent change in on-task behavior pre-and-post recess break, chi-square testing, and t-testing. All statistical computations were performed in IBM SPSS Statistics (Version 29), and both the Chi-square and the t-test were used to test for statistical significance.

Percent change is a measurement used to evaluate the magnitude of change between two values expressed as a percentage. It is calculated by dividing the difference between the two values by the original value and multiplying by 100 to express the change as a percentage. Percent change is commonly used in research to analyze trends, compare data points, and assess the impact of interventions or treatments. This provides a clear and concise way to quantify the extent of change over time or between different groups and is a tool to accurately measure and interpret differences in data and identify patterns or trends. Specifically, regarding this research, the percent change in on-task behavior was analyzed for a comparative view of behavior change pre- and post-recess breaks.

The Chi-square test is a statistical method used to determine if there is a significant association between two categorical variables (e.g., observed results versus expected results). This test compares the observed data frequencies with the expected frequencies if there is no relationship between the variables. The test calculates a chi-square statistic, which is then compared to a critical value from a chi-square distribution to determine if the association between the variables is statistically significant. Since chi-square statistical testing is considered non-parametric, it makes minimum assumptions about the data distribution. The chi-square test was applied to my research as it determined if there was a significant association between the two variables (expected and observed behavior) in the study.

The t-test is a statistical method used to compare mean values between two groups, assessing whether their difference is statistically meaningful. This research

utilized the independent samples t-test, comparing each observation category's (pre- and post-recess break) means of the class's time spent on task behavior.

Analyzing the data using Chi-square and t-testing allows for a more comprehensive and robust evaluation of the relationships and differences in the data. By utilizing both, I could examine the relationships between the categorical variables and the differences in means between groups, providing a more in-depth understanding of the data. This approach can help uncover patterns, trends, and potential explanations that may not be revealed using only one type of statistical analysis and provide a more nuanced interpretation of the data.

A digital handheld recorder was used for teacher interviews, and the recorded interviews were uploaded to Otter.ai (Otter.ai, 2023) for transcription. All transcribed interviews were password-protected in a computer folder. I took an inductive approach to the data, using the coded interviews to make generalizations (Brinkmann & Kvale, 2008). I chose an inductive approach because I wanted to see what naturally came out of the interview conversations rather than looking at predetermined themes that I would search for throughout the transcripts.

### **Institutional Research Approval**

An application and its supporting documentation were submitted to Hamline University's Institutional Review Board (IRB) and were accepted on October 5, 2023. The IRB submission documentation contained copies of the student observation form, teacher interview questions, and participatory consent forms for students in the observation and for the teachers to be interviewed. Supplemental letters of support from the participating school district Superintendent's office and the building principal where

the observations were to occur were also submitted. Signed permission was granted from all participants (parents/guardians and interviewed teachers) prior to data collection.

### **Conclusion**

In conclusion, this mixed methods study sought to understand students' classroom engagement with two daily outdoor recess breaks integrated into their day. Taking a concurrent triangulation approach through classroom observation and teacher interviews, this research attempts to discover the classroom engagement of elementary students before and after two daily recess breaks and to document the educators' professional experiences of the "Right to Play Every Day" Act through qualitative interviewing.

This chapter discussed the research paradigm and its rationale, the methodology and methods design for the case study, data collection tools, analysis, and ethical considerations working with a vulnerable population. Chapter Four details the findings and provides themes connected to the research questions.

## CHAPTER FOUR

### Results

#### Introduction

Through student observation and teacher interviews, this research examines students' time spent in outdoor recess to determine whether increased time outside influences a student's classroom engagement. This chapter discusses the study's results to answer the research questions:

- *Does increased outdoor recess influence a student's classroom engagement?*

A secondary research question associated with this study is:

- *What are educators' perspectives regarding Illinois's passage of The Right to Play Every Day Act?*

This small mixed-methods study occurred in one third-grade classroom within six weeks of the fall semester. However, the findings can be added to educational policy and psychology research.

#### Overview

Sixteen students in a third-grade classroom were observed using the Time-on-Task observation method. Each student present in the classroom was observed 15 times during each observation period. The observations occurred twice weekly for six weeks and were conducted two times a day before and after recess breaks. Of the 24 completed observation days, seven were indoor recesses. Six indoor recesses occurred during the morning recess, while one occurred during the afternoon lunch/recess. Indoor recesses resulted from inclement weather that was not conducive to outdoor play.

One semi-structured interview was conducted with five elementary teachers. The interview asked participants to share their professional perspectives on unstructured play, the Right to Play Every Day Act, and their favorability of recess being mandated by law. Four themes were identified from the five interviews and are presented in detail below.

### **Statistical Results of Observational Data**

Observational results were analyzed using percent change, Chi-square, and t-testing and graphically represented. The percent change results are presented in three ways: combined indoor and outdoor days, outdoor and indoor-only days, Independent Samples t-test, and Chi-square testing. The interview findings are presented thereafter. Statistical analysis took into account the aggregate number of total observations conducted. Students who were absent during the observation periods were not accounted for.

### **Percent Change in On-Task Behavior**

Time on Task suggests a correlation between students' time on instructional tasks and learning (Godwin et al., 2021). Part of this research sought to explore whether increased time on task in the classroom setting can be attributed to an external classroom function (e.g., outdoor recess).

Baseline data of pre-recess observations showed the classroom's on-task mean of 90.83% in the morning and 90.11% in the afternoon, respectively. See Table 2. This already high engagement pre-recess saw a slight increase in the mean when analyzing time on task post-recess breaks.

When the results of all recess days (indoor and outdoor recess days combined) were analyzed, the percent change in on-task behavior increased by 4.26%. See Table 2.

The observational data was also analyzed by outdoor recess-only days, with a combined increase of 8.79%. However, indoor recess-only days saw a decrease of 3.86% in the morning and a gain of 5.43% in the afternoon. See Table 3 and Table 4.

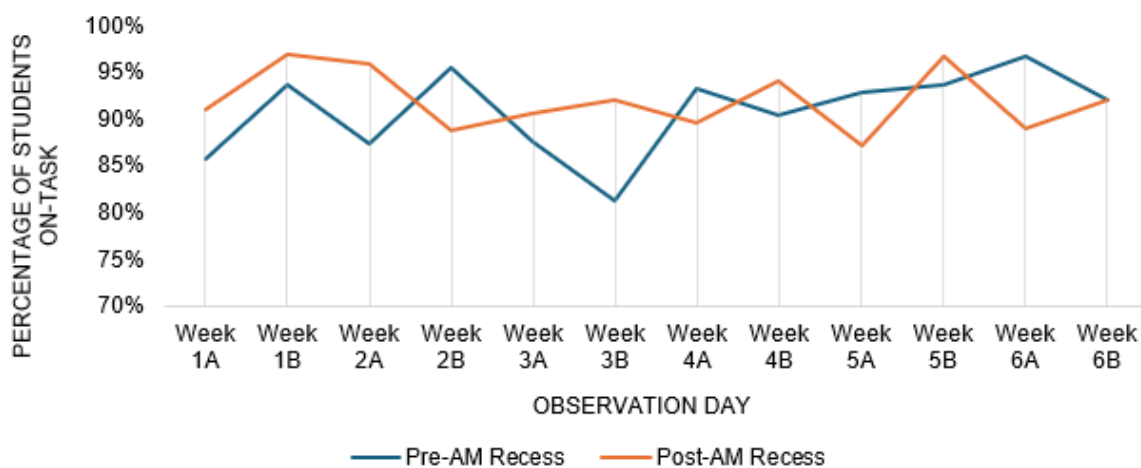
**Table 2**

*Percent Change of On-Task Behavior (Combined Indoor and Outdoor Recess)*

	Pre-AM	Post-AM	Pre-PM	Post-PM
<b>Overall Mean</b>	90.83%	91.99%	90.11%	92.81%
<b>Percent Change Pre to Post Recess</b>		1.27%		2.99%
Median	90.90%	91.90%	90.82%	91.38%
Max	99.48%	100.00%	99.48%	99.48%
Min	79.40%	83.32%	75.51%	82.28%
Range	20.08%	16.68%	23.97%	17.20%
Standard Dev	0.06	0.05	0.07	0.05

**Figure 1**

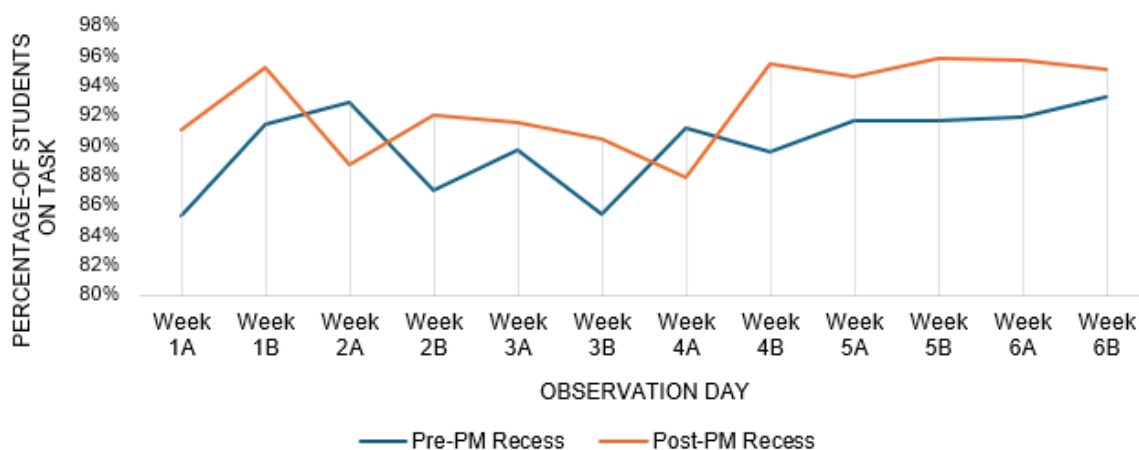
*Percentage of Students On-Task Pre/Post-AM Recess Break (Combined Indoor and Outdoor Recess)*



Note: 'Week 1A' denotes the first observation of week one, while 'Week 1B' denotes the second observation of week one. 'Week 2A' denotes the first observation of week two, while 'Week 2B' denotes the second observation of week two, and so forth.

## Figure 2

*Percentage of Students On-Task Pre/Post PM Recess Break (Combined Indoor and Outdoor Recess)*



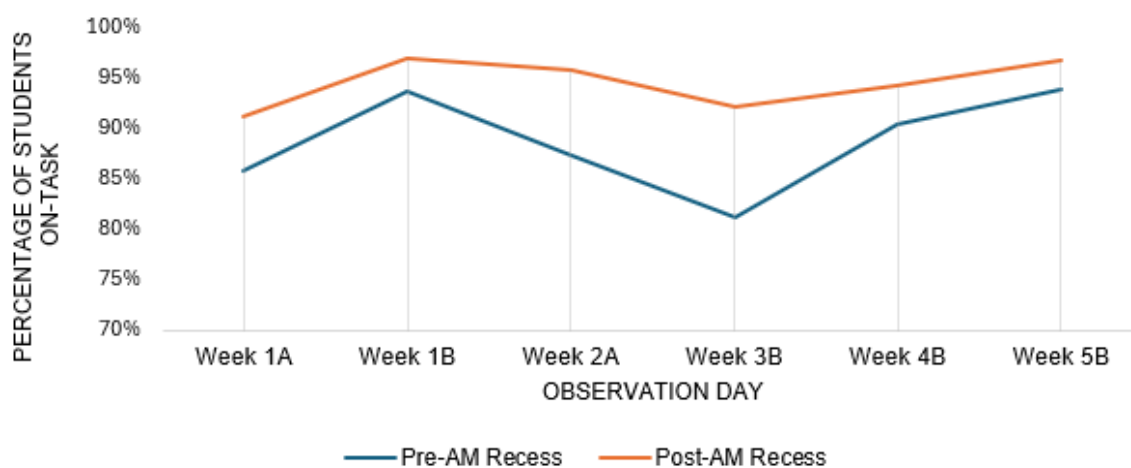
### *Outdoor Recess and On-Task Classroom Behavior*

Students participating in morning outdoor recess had a modest increase in on-task classroom behavior, with a gain of 6.11%. By providing students with a break from the classroom environment, outdoor recess may act as a leveling factor, helping to reset and recharge students' energy levels. This, in turn, can lead to more consistent and sustained levels of engagement in the classroom, ultimately enhancing overall academic performance and learning outcomes. See Figure 3.



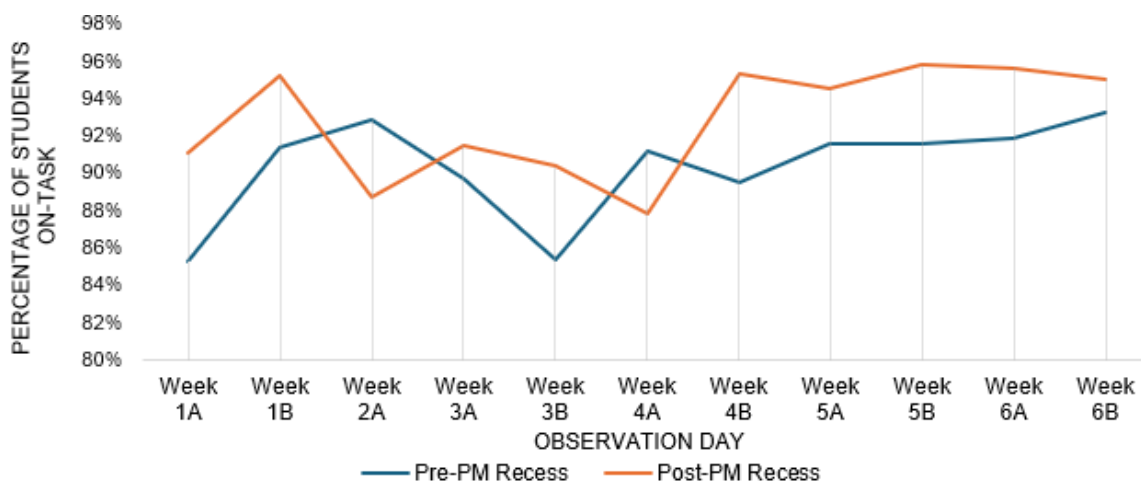
**Table 3***Percent Change of On-Task Behavior (Outdoor Only Recess)*

	Pre-AM	Post-AM	Pre-PM	Post-PM
<b>Overall Mean</b>	88.69%	94.11%	90.39%	92.81%
<b>Percent Change Pre to Post Recess</b>		6.11%		2.68%
Median	88.26%	94.33%	91.13%	91.38%
Max	84.82%	100.00%	100.00%	99.43%
Min	76.25%	85.00%	74.99%	82.37%
Range	22.71%	15.00%	25.01%	17.06%
Standard Dev	0.07	0.05	0.07	0.05

**Figure 3***Percentage of Students On-Task Pre/Post-AM Recess Break (Outdoor Only Recess)*

**Figure 4**

*Percentage of Students On-Task Pre/Post-PM Recess Break (Outdoor Only Recess)*



### ***Indoor Recess and On-Task Classroom Behavior***

Five-morning recesses and one afternoon recess occurred indoors during observations. Morning indoor recesses saw a mean decrease of 3.86% and a gain of 5.43% during the afternoon recess. See Table 4. While there is a stark contrast between the difference in means of on-task behaviors between the morning and afternoon recess breaks, I can only hypothesize that the one day of indoor afternoon recess may have seen a gain in on-task behavior due to the recess being held in another room within the school and not in their same classroom. This indoor space was larger than their classroom, and activities were child-led. Research has demonstrated a correlation between increased classroom attention and the recess environment children participated in during recess (Brez & Sheets, 2016). Morning indoor recesses occurred in the students' classroom.

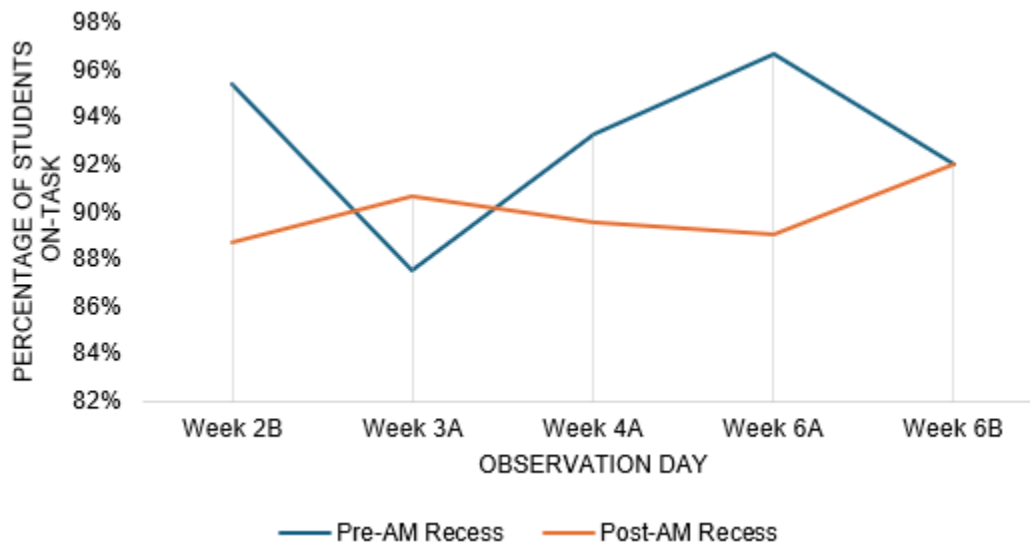
**Table 4**

*Percent Change of On-Task Behavior (Indoor Only Recess)*

	Pre-AM	Post-AM	Pre-PM	Post-PM
<b>Overall Mean</b>	92.98%	89.52%	87.08%	92.08%
<b>Percent Change Pre to Post Recess</b>		-3.86%		5.43%
Median	93.54%	88.04%	87.50%	93.75%
Max	100.00%	100.00%	93.75%	100.00%
Min	82.55%	81.65%	81.25%	81.25%
Range	17.45%	18.35%	12.50%	18.75%
Standard Dev	0.05	0.05	0.03	0.05

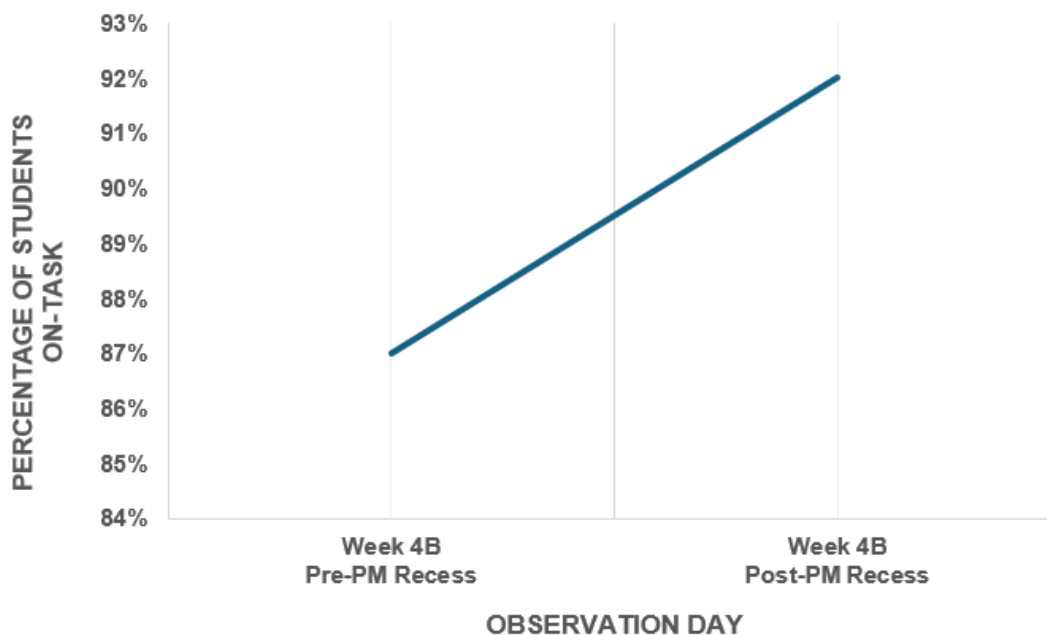
**Figure 5**

*Percentage of Students On-Task Pre/Post-AM Recess Break (Indoor Only Recess)*



**Figure 6**

*Percentage of Students On-Task Pre/Post-PM Recess Break (Indoor Only Recess)*



### **Independent Samples T-Test Results**

To test the null hypothesis that there is no association between increased outdoor recess and an increase in on-task behavior, an Independent Samples t-test was conducted to compare the means of pre- and post-recess breaks to determine if there is statistical significance. There was no significant effect between the pre-and post-recess means of the recess breaks,  $t(736) = 2.04$ ,  $p = .046$ , and it failed to reject the null hypothesis. See Table 5.

**Table 5***Independent Samples T-Test Results*

		Group Statistics				
		Pre/Post Recess Break	N	Mean	Std. Deviation	Std. Error Mean
Minutes on Task	Post		372	13.82	1.765	.092
	Pre		372	13.54	1.932	.100

		Independent Samples Test							
		Significance					95% Confidence Interval of the Difference		
		t	df	One- Sided p	Two- Sided p	Mean Difference	St. Error Difference	Lower	Upper
Minutes on Task	Equal variances not assumed	2.041	736.03	.021	.042	.277	.136	.011	.543

**Chi-square Test Results**

A Chi-square test was performed to determine if there was a significant association between recess and classroom on-task behavior. To test the question, “Are the distribution of behaviors similar or different?” the results failed to reject the null hypothesis that there is no association between increased outdoor recess and an increase in on-task behavior, as there was not a statistical association between the variables,  $\chi^2(8, N = 370) = 12.16, p = .05$ . See Table 6. Note: Frequency count outliers (3-6) were excluded from the Chi-square test because these outliers represented rare cases that were not representative of the overall data distribution and did not affect the outcome of the statistical analysis.

**Table 6***Chi-square Test Results*

Descriptive Statistics					
	N	Mean	Std. Deviation	Minimum	Maximum
Minutes on Task	370	13.87	1.597	7	15

Test Statistics	
Minutes on Task	
Chi-Square	12.16 <sup>a</sup>
df	8
Asymp. Sig.	.144

a. 1 cells (11.1%) have expected frequencies less than 5. The minimum expected cell frequency is 1.0.

**Summary of Statistical Results**

While the study saw an increase in the percent change of students' engagement overall, based on the statistical results of the Independent Samples t-test and Chi-square, it is inconclusive to assert that there is a correlation between increased outdoor recess and on-task classroom behavior.

**Teacher Interview Findings**

Five semi-structured interviews were conducted with elementary school teachers within the district between October and December 2023. The educators participating in the interviews received an overview of the study, signed a consent form, and were willing participants. Participation could be rescinded at anytime, even after the interview's conclusion. All names have been redacted to protect the anonymity of the interviewee and the school district.

The interviews were coded using an inductive process, and four themes were identified: higher academic expectations, time constraints, equating physical education and recess, and recess as soft skills and social-emotional learning practice. Each of these themes is described in more detail.

### **Educators' Perspectives on Unstructured Play**

The teachers interviewed support unstructured play during the school day, as it benefits children's social-emotional development, self-regulation, communication, and problem-solving. Teachers agree that it helps them learn to communicate, socialize, and find their interests. However, the length of the school day can limit the implementation of unstructured play. Teachers supported the idea, but some wished for a more extended school day to avoid taking away from other academic tasks. However, there are ways to make unstructured play more intentional and beneficial for children. Overall, no negative responses or reservations are expressed about unstructured play during the school day, but the length of the school day can limit its implementation.

#### ***Pros***

Teacher 1: "I think that's a chance for them to actually practice the social-emotional stuff that we are trying to teach them in here. [...] But going outside or taking a break is giving them an actual chance to practice [...] it plays out out there."

Teacher 2: "I'm a fan of it. I don't think there's enough time in our day for as much unstructured play as is needed. [...] They're learning how to self-regulate to some degree. So I think unstructured play teaches them so many social skills that you realistically can't fit into the content area all day, every day."

Teacher 3: “I think it’s good. They need it. [...] That’s how they learn to communicate, socialize, find out what they like.”

Teacher 4: “Recess is good for the exercise part. It’s good for their social-emotional well-being because they get the chance to express themselves and try to solve their own problems.”

### ***Cons***

No negative responses or reservations were expressed about the idea of unstructured play during the school day. While acknowledging the benefits of unstructured play, the length of the school day itself became a limiting factor in implementing play during the school day.

Teacher 5: “Yeah, it’s good for the kids. I mean, I wish we had a longer school day so that it didn’t feel like giving time to unstructured play takes away from other academic tasks, but I think there are ways that you can have unstructured play be a part of your day that feel more intentional. [...] Then you might get a little bit more out of it than just willy-nilly free-for-all, right?”

Teachers agree that unstructured play benefits children, but some wish for a more extended school day to avoid taking away from other academic tasks. If an extended day is not an option, however, there are ways to incorporate unstructured play into the day that feel more intentional. Teacher 5 believes it can be achieved through intentional activities rather than a free-for-all approach. Overall, no negative responses or reservations were expressed about unstructured play during the school day, but the length of the school day can be a limiting factor.



## **Educators' Perspectives on The Right to Play Every Day Act**

My secondary research question asked, *What are educators' perspectives regarding Illinois's passage of The Right to Play Every Day Act?* The five educators interviewed were asked for their professional opinions regarding the 2021 mandate that all Illinois elementary students receive two (preferably outdoor) unstructured 15-minute recess breaks. (Before the law changed, this school district had lunch/recess in the afternoon at all elementary schools districtwide. The 2021 law change specifically impacted the observed school's schedule by having to integrate an additional 15-minute recess break into the school day.) The educators were asked about the pros and cons of the law change. All of the teachers agreed that a break from academic instruction is necessary, as the teachers generally believe that the benefits of the additional 15 minutes of recess outweigh the cons, as it gives students time to reset themselves and socialize with their peers.

### ***Pros***

Teacher 1: "I feel like the benefits definitely outweigh the cons. [...] It's very necessary."

Teacher 2: "The advantages are that kids get that extra free unstructured time."

Teacher 3: "Yeah, I see the pros, for sure. Because they'll get the time they need to reset themselves, right?"

Teacher 4: "I think the additional recess is important for the kids to have movement and be social with each other."

### ***Cons***

Teacher 4: “The drawback I see is we have such a short day. It’s so much that we have to teach them, but I feel sometimes it takes away from their learning.”

Teacher 5: “Anytime you lose instructional time in the day, you know that that puts stress on the schedule and on the staff to try to work in something because 15 minutes didn’t just exist doing nothing. Right? It had to come from somewhere. So did it come from science? Did it come from social studies? Does it come from a few minutes here or there, but not math and reading, but you know, so it hits.”

Four out of the five teachers interviewed felt that the benefits outweighed the cons, as it provides time for students to reset themselves. However, they also noted that fitting an additional 15 minutes of recess into a short school day may detract from learning and put stress on the staff and school schedule. They pointed out that the extra 15 minutes of recess had to come from somewhere within the school day, and as such, it can come at the expense of covering academic material.

A follow-up question was asked about whether recess should be mandated by law. When asked for their professional opinion, all of the interviewed teachers agreed that children need a break from academic instruction during the school day; however, two out of the five teachers interviewed stated a law mandate is not necessary.

Teacher 1: “I think that the law has to be there because you don’t know which administrator you’re going to get and what their personal opinions on it are.”

Teacher 2: “I think that all kids deserve a break. I think that all educators are intelligent enough to know when that break is needed. So I don’t necessarily think that it needs to be mandated by law.”

Teacher 3: “Yeah, definitely. They need it.”

Teacher 4: “I do feel that children need a break in recess. And a law mandating it is good.”

Teacher 5: “I’m personally a big proponent of local decision-making. So I struggle with it being mandated when each of the district’s situations is unique.”

Teachers agree that children need a break from academic instruction during the school day. However, some teachers believe that the law is necessary due to the uncertainty of some administrators' beliefs and personal opinions. Others believe that all children deserve a break and that educators can be relied on to know when that break is needed. Some teachers support the idea of a law mandating recess, while one argues that local decision-making is more effective in addressing unique situations within each district. Despite these concerns, most teachers believe that the benefits outweigh the cons, making extra recess a valuable tool for students.

### **Theme 1: Higher Student Academic Expectations**

All five educators interviewed expressed higher academic expectations as a constraint on unstructured play. When asked what notable educational changes they have noticed since the start of their career, all five remarked that their academic expectations and pressures have increased. As Teacher 1 commented, “...the academic expectations of the students, I feel, have advanced at least a full year. So the Kindergartners are expected to do what the first graders did 20 years ago when I went to school.”

Teacher 1: “The academics were not as hard [as when we were in Kindergarten]. Like I said, it’s a one-year shift now.”

Teacher 3: “...they’re so tired of focusing, right, that they need to get in their own little world and, you know, do whatever you do there.”

Teacher 1: “Since the Common Core, the academic shift has become so much higher. And then I feel like it was like, well, we don’t have time for that stuff anymore.”

Teacher 2: “I think the biggest thing that has changed is as we’ve shifted standards, the expectation is much greater for students.”

Teacher 4: “We’re doing this new reading program and the words they [Kindergartners] have to know—*isn’t*; *can’t*—those are not beginning sight words.”

The five educators interviewed have noted that academic expectations have increased significantly since the start of their careers. The most significant change identified is the increased academic expectations for students. The educational shift since the Common Core has made the expectations much higher, making it difficult for teachers to focus on other aspects of the curriculum. One teacher noted that the academic expectations for kindergartners have advanced by at least a year, with first-grade academic content now being taught.

## **Theme 2: Time Constraints**

Implementing additional mandated recess times is challenging, as the teachers interviewed cited the pressure to fit recess breaks into already packed schedules.

Teacher 1: “But like, how do you fit it all in?”

Teacher 1: “The difficult part is fitting it in.”

Teacher 2: “But there’s also mandated timeframes for content area in the state of Illinois. And the struggle is, what do I cut out?”

Teacher 3: “You don’t have enough time. Teachers are talking about how they don’t get to do science or experiments anymore.”

Teacher 4: “The drawback I see is we have such a short day; it’s so much that we have to teach them.”

Teacher 4: “When they [State of Illinois] implemented that extra recess, all you heard in the building was more instructional time gone. Where are we fitting it in?”

Teacher 5: “In the school setting, 15 minutes feels like a lot, especially when you have so much ground to cover.

Implementing additional mandated recess times has been met with challenges as teachers struggle to fit them into already packed schedules. The pressure to cut out time for academic content (such as science and experiments) is a significant issue, as teachers feel they need more time to engage in these activities. The short day of teaching also adds to the workload, making it difficult to fit in the extra recess. Teachers also express concern about the impact of the extra recess on their instructional time, as 15-minute breaks feel like a lot, especially when there is a lot of academic ground to cover.

### **Theme 3: Equating Physical Education and Recess**

The Illinois State Board of Education (2023) requires all Kindergarten through fifth-grade students to engage in at least three physical education days per week, as outlined in 105 ILCS 5/27-6. While outdoor recess and physical education classes promote physical activity, these are fundamentally different aspects of the school day and are mutually exclusive. Physical education is formalized instruction and standards-based (Kohl et al., 2013). And yet, just like recess, due to national inconsistencies in mandating physical education requirements, physical education classes also have seen reduction times in favor of math and reading instructional minutes due to the passage of the No Child Left Behind Act (Kohl et al., 2013; Loy-Ee & Ng, 2018). Mental restoration can be

achieved in different ways, but what is achieved depends on the physical environment—whether you are indoors or outdoors (Yousli et al., 2021).

The teachers interviewed expressed the favorability of movement regarding the release of energy and a break in mental concentration but associated physical education with recess breaks.

Teacher 1: “They come back for a math block for an hour, and then they have specials. So they’re taking essentially a break from the classroom just by walking through the hallway, getting their gym time and then they’re coming back for their science block. So [their] afternoon actually has those built-in breaks.”

Teacher 2: “And quite honestly, when he [Governor Pritzker] was writing the law, I thought PE would have been included in that because not all schools in the state of Illinois require PE every day. [...] But at the same time, PE is sometimes more structured.”

Teacher 4: “But if schools have PE class every single day, then I’m not so sure they need two recesses because then you’re giving an hour of their day as playtime. If you don’t have recess, or if you don’t have PE every day, then yes, they definitely need to have that. But our kids get three breaks a day.”

Teacher 5: “I also think we’re very fortunate to have daily PE, and in school districts where there’s not daily PE and a physical—a built-in physical release in the day—it might need to look and sound and feel different.”

Ultimately, physical activity and movement breaks are necessary for anyone engaging in sustained cognitive tasks. The interviewed teachers acknowledged that movement breaks are beneficial. Still, they equated the benefits of unstructured recess to

structured academic instruction, as some suggested physical education has the same outcomes as recess (i.e., “getting the wiggles out”). Mental restoration can be achieved in different ways, but what is achieved depends on the physical environment and whether or not students are engaged in structured activity.

#### **Theme 4: Recess as Soft Skills and Social-Emotional Learning Practice**

Cognitive fatigue, which occurs when cognitive processes are prolonged or intense, has been found to be linked to emotional dysregulation, according to a study by Grillon et al. (2015). This suggests that when our cognitive resources are depleted, we struggle to manage our emotions effectively. In line with this, psychological studies have indicated that engaging in tasks of greater difficulty can lead to increased anger and frustration (Ciarocco et al., 2001), which may negatively impact performance outcomes. These findings emphasize the intricate relationship between cognitive processes and emotional experiences, shedding light on the potential impact of mental exertion on our emotional well-being and behavioral responses.

Three teachers interviewed have identified significant shifts in behavior, concentration, and patience. When asked what they believed was the impetus for these negative behavior shifts, the teachers felt this was in response to academic pressures. As Teacher 1 remarked, “[Kids] that go under tables, hide, lots of sensory things. [...] So yeah, big shifts in behavior, I would say, in academic pressures.”

Teacher 1: “These kids don’t know how to ‘people’ anymore.”

Teacher 1: “Student behaviors have escalated in the last few years; and the behaviors are bigger: hyperactivity, focus issues, aggression, defiance, elopement.”

Teacher 3: “They have no patience. They can’t concentrate longer than a couple of minutes. And so you have to be redirecting, redirecting, redirecting all day long.”

Teacher 3: “[Unstructured play] is good. They need it. [...] That’s how they learn to communicate, socialize, and find out what they like.”

Teacher 3: “What I do notice is when we don’t have recess, that they are wild, and they need a chance to move. [...] ...we didn’t have recess the last two days, and they just couldn’t focus.”

Teacher 3: “And you can see it especially like when they have indoor recess, and they don’t get that recess at all. They’re just crazy in the afternoon. They can’t focus.”

Teacher 4: “I think the additional recess is important for the kids to have movement, and be social with each other. They need that—socialization skills—they need to learn how to handle their own problems.”

Emotional dysregulation can negatively affect student engagement with subject matter and their peers. The teachers interviewed expressed the importance of peer-to-peer interactions outside of the classroom setting, as well as attentional issues and negative behaviors in response to academic pressures and times of reduced recess.

Cognitive fatigue and academic pressures are believed to be the main reasons for some negative behavior shifts in students, as three teachers interviewed reported significant shifts in behavior, concentration, and patience due to academic pressures. The teachers believe these changes are due to students who are unable to apply interpersonal social-emotional skills and have seen an escalation in behaviors such as hyperactivity, focus issues, aggression, defiance, and elopement.



The teachers interviewed emphasized the importance of unstructured play for children's communication, socialization, and problem-solving skills. They also note that students who lack recess are more likely to exhibit hyperactivity and need a chance to move, which can lead to a lack of focus. Teachers believe additional recess is crucial for children's movement and social interaction and for developing socialization skills and problem-solving abilities.

### **Conclusion**

This study aimed to determine whether increased time outside influences a student's classroom engagement. This chapter reviewed the results of the study to answer the research questions

- *Does increased outdoor recess influence a student's classroom engagement?*

A secondary research question associated with this study is:

- *What are educators' perspectives regarding Illinois's passage of The Right to Play Every Day Act?*

Engaging in outdoor recess can impact student engagement levels in the classroom. This research demonstrated that the opportunity to play and move outdoors may help rejuvenate students' minds and bodies, resulting in a mean increase in focus and attention during academic tasks. While the observational results showed an overall mean increase in time spent on-task post-recess breaks, it is inconclusive to assert that statistical significance is associated with increased outdoor recess and student engagement.

The educational landscape in Illinois has seen a remarkable shift in recent times, with educators grappling with elevated academic standards and limited time for

instruction. This has necessitated substantial adjustments in teaching approaches. Teachers find themselves in a delicate balancing act, attempting to harmonize the teaching of core academic content with the constraints of shortened school days. These circumstances have sparked discussions about the consequences of extending recess periods on valuable instructional time. These challenges underscore the pressing need for continuous adaptation and enhancement of educational strategies.

I maintain that the Right to Play Every Day Act does not harm students' on-task behavior, as observed behaviors did not decline with outdoor recess breaks. Additionally, the teachers interviewed expressed favor toward unstructured play and the promotion of recess on a student's social-emotional well-being and development, while the protection of recess and a child's right to play was well supported. These findings suggest that regular opportunities for unstructured play during the school day can positively impact students' overall well-being and behavior. It is clear that the Right to Play Every Day Act aligns with the best interests of the students and should continue to be supported.

Chapter Five will conclude the study and offer recommendations based on its findings. It will also outline the study's limitations and present direction for future research.

## CHAPTER FIVE

### Conclusion

#### Introduction

This study aimed to determine whether increased time outside influences a student's classroom engagement. The research questions that guided this study were:

- *Does increased outdoor recess influence a student's classroom engagement?*

A secondary research question associated with this study is:

- *What are educators' perspectives regarding Illinois's passage of The Right to Play Every Day Act?*

Twenty-four student observations and five teacher interviews were conducted over six weeks; the investigation results were discussed in the prior chapter. This chapter examines the study's conclusions and provides future educational policy and research recommendations.

#### Recommendations

As a result of my completed research, I have identified five areas of recommendations:

- Integrate Recess into the School Day
- Schedule High Rigor Academics After Recess
- Indoor Recess Should be Unstructured and Child-Led
- Lengthen the School Day
- School Personnel Participates in Professional Development of Unstructured Outdoor Play and its Effects on Elementary School Children

### ***Integrate Recess into the School Day***

The Right to Play Every Day Act, legislation enacted to improve the well-being of Illinois students, was signed into law in June 2021 and became effective in August 2021. The school district participating in this research complies with the Act; however, there are school districts within the state of Illinois that do not (Illinois Families for Public Schools, n.d.). This legislation marks a significant step forward, but its implementation varies across the state. Despite these inconsistencies, the Act's potential student benefits are substantial and worth examining in future research.

Recess should be as thoughtfully integrated into a school's schedule as any other academic subject. With the passage of the Right to Play Every Day Act of 2021, Illinois Kindergarten through fifth-grade students are to have two (preferably outdoor) 15-minute recess breaks during their school day. The quantitative results of this study demonstrated a percent change of 6.11% in on-task behaviors in the morning and a 2.68% increase in the afternoon post-outdoor recess breaks. This baseline data can inform a school schedule, inspire a shift towards the intentional promotion of outdoor physical activity, and acknowledge the benefits of an outdoor environment's impact on elementary children's social-emotional and cognitive development.

### ***Schedule High-Rigor Academics After Recess***

Research has demonstrated that whether students spend their outdoor recess time engaged in physical activity or are more sedentary, being outside can significantly impact their well-being. Outdoor recess can enhance social-emotional learning, increase cognitive functioning, and reduce stress (Bauml et al., 2020; Yogman et al., 2018; Kuo, 2015). This observational research has shown noticeable improvements in students' mean

on-task behaviors after just 15 minutes of being engaged in outdoor recess. Other studies have also demonstrated that these unstructured breaks enhance focus and attention, as physical activity during recess can help students return to class more alert and ready to concentrate on challenging tasks (de Greeff et al., 2018; Howie & Pate, 2018; Álvarez-Bueno et al., 2017). The benefits of outdoor recess go beyond physical activity and can positively impact students' overall well-being and academic performance.

### ***Indoor Recess Should be Child-Led***

Indoor recesses should be in spaces promoting physical movement and as unstructured and child-led as possible. The morning indoor recess break data indicated a -3.86 decrease in on-task behavior when recess occurred in the classroom. Indoor recesses should be designed to maximize physical activity and child-led play, even when outdoor options are unavailable. This means creating spaces that encourage movement and provide opportunities for unstructured play. The one indoor afternoon recess saw a gain in on-task behavior of 5.43%. While it is difficult to ascertain why the afternoon recess increased, and the indoor morning recesses decreased, the difference was a venue change. The afternoon indoor recess occurred in the larger music room, where activities were more child-led. The morning indoor recesses were in the students' classroom and were teacher-led and highly structured activities. Below are seven considerations for a more child-led indoor recess:

- Adequate recess space: Ideally, the indoor area should be large enough for children to safely run, jump, and engage in active play.
- Versatile play equipment: Provide a variety of portable equipment that can be used in multiple ways.

- Flexible play areas: Create different places for various activities, such as a corner for quieter games and a larger space for more active play.
- Minimal adult intervention: While supervision is necessary, adults should avoid over-structuring the play time, allowing children to initiate and direct their own activities.
- Imaginative play areas: Set up spaces that encourage role-playing and creative games involving physical movement.
- Respect for student choice: Allow children to choose their activities and playmates, thus promoting social skills and independence.
- Accommodating different energy levels: Provide options for high-energy and low-energy activities to suit various student needs and preferences.

By implementing these ideas, schools can ensure that indoor recess remains a valuable opportunity for physical activity, social interaction, and child-directed play, supporting students' overall well-being and readiness to learn.

### ***Maximizing School Time Use***

The Right to Play Every Day Act has increased the focus on integrating more unstructured play time into the school day. This directive responds to the recognized importance of play in a child's development. The Act aims to balance academic rigors and the need for children to have time for active, unstructured play. Teachers and school districts are now faced with reevaluating school schedules and finding ways to accommodate additional recess time while ensuring that academic requirements are still met.

Teachers should be provided with dedicated time to engage in thorough discussions on best utilizing the school day time, particularly in light of the recent changes introduced by the Right to Play Every Day Act. It is essential for educators to have structured opportunities for open, collaborative, and comprehensive planning sessions to explore the most effective ways to strike a balance between meeting academic requirements and providing opportunities for unstructured play.

During these planning sessions, teachers can share insights, exchange innovative ideas, and collectively devise strategies to accommodate additional recess time without compromising the quality and depth of academic instruction. By leveraging their perspectives and experiences, teachers can play a key role in developing school schedules that reflect the needs of students and faculty. With dedicated time for professional collaboration, teachers can thoroughly analyze how to structure the school day to allow for unstructured play while still fulfilling the academic needs of the students. This may involve considering various approaches, such as adjusting the length of the school day to incorporate more playtime, integrating play into the curriculum to enhance learning, or devising creative methods to blend play and academics seamlessly. Furthermore, teachers could use this time to collaborate with school administrators and other stakeholders to ensure that any proposed changes align with the goals of the Right to Play Every Day Act and are feasible within the existing educational framework. Involving teachers in this decision-making process allows schools to leverage their expertise and experience, leading to the development of solutions and approaches that are more likely to resonate with the needs of the students, ultimately fostering a more enriching educational environment.

*Elementary School Staff Engage in Training on Unstructured Outdoor Play and its Impact on Students*

A significant finding of my teacher interviews was that teachers often equated physical education class with recess in that the promotion of movement satisfies restlessness, and they did not acknowledge the mental restoration time spent outdoors imparts to children. Based on this finding, a professional development opportunity can be afforded to certified and non-certified elementary school staff that discusses the importance and academic and cognitive benefits unstructured outdoor play has on a developing child in school settings.

This insight highlights the potential oversight in recognizing the broader benefits of unstructured outdoor play for children's cognitive and emotional development. Therefore, it is essential to address this in a professional development opportunity for educators, ensuring that they understand and incorporate the value of unstructured outdoor play in their teaching practices. By emphasizing these benefits, educators can create more holistic and supportive learning environments for children, facilitating their overall development and growth.

**Limitations**

By identifying my study's potential weaknesses or constraints, I can apply a context for understanding the scope and applicability of the results. There are five limitations identified within the scope of this study:

- Limited population size
- Indoor versus outdoor recess breaks
- Length of the study and observation frequency



- A limited number of teacher interviews
- Absence of long-term follow-up

### ***Limited Population Size***

This study focused on a single third-grade classroom comprised of 16 students, which significantly limits the study's generalizability. A larger sample size across multiple classrooms, grades, or schools would provide more robust and representative data. This expanded scope could account for variations in teaching styles, school environments, and student demographics, potentially yielding more comprehensive and widely applicable results.

### ***Indoor Versus Outdoor Recess Breaks***

The shift between indoor and outdoor recesses introduced a stark variable, as half of the morning recesses occurred indoors. Indoor and outdoor recess areas differ in available space, types of activities that can be performed, sensory stimulation, and overall atmosphere. These differences could have significantly impacted students' behavior, energy levels, and subsequent classroom performance. A more controlled study comparing exclusively outdoor recesses with indoor ones, or a longer-term study with a balanced mix of both, could provide clearer insights into the specific effects of each environment.

### ***Length of Study and Frequency of Observations***

Conducting observations only two days a week versus five limits the amount of data collected and may not capture the full range of variability in student engagement. A more extended study period with more frequent observations would provide a more comprehensive picture of the effects of recess on student engagement. It would also allow

for identifying potential patterns or trends that might emerge over time, such as changes in behavior as students adapt to new routines or as seasons change.

### ***Limited Number of Teacher Interviews***

With only five teacher interviews, the study may not have captured the full spectrum of educator perspectives on unstructured play and the Right to Play Every Day Act. A larger number of interviews would likely yield a more diverse range of viewpoints, experiences, and insights. This could include teachers from different grade levels, schools, or districts and those with varying years of experience or pedagogical approaches. A broader interview base might reveal additional themes, challenges, or success stories related to the implementation of recess policies and their perceived impacts on student learning, engagement, and behavior.

### ***Absence of Long-term Follow-up***

After a substantial period of time, such as several months, it would be valuable to conduct a follow-up study to determine whether the positive effects of recess are maintained over time. This follow-up study can also explore how these effects may influence and interact with ongoing student growth and development.

While limitations are associated with this study's findings, they also provide valuable direction for future research to better inform school policy that integrates recess into a school day, ultimately benefitting student well-being and academic performance.

### **Future Research Recommendations**

Four areas related to this study could benefit future research on the impacts of outdoor recess on student engagement: employing a control group and experimental group within the study's design, documenting the effects of scheduling recess before

lunchtime, classrooms designed as restorative environments, and examining the measurement of academic performance pre- and post-recess breaks.

### ***Control and Experimental Groups***

Future research could investigate the implementation of various recess policies across schools or classrooms. For instance, a control group could maintain the standard two-recess break policy, serving as a baseline for comparison. Meanwhile, experimental groups could have extended recess periods, with another group experiencing multiple short outdoor breaks throughout the school day. Researchers could also consider implementing a cross-over design, allowing groups to switch treatments after a set amount of time, offering each group exposure to different recess policies, and examining the within-group comparisons.

### ***Schedule Recess Before Lunchtime***

The School Wellness Policy in Illinois and 18 other states recommends scheduling recess before lunchtime (National Association of the State Boards of Education, n.d.). However, these recommendations are not legally binding. In this study, the third-grade class had lunch before their afternoon recess, which is the traditional approach in most school districts. Nevertheless, research shows that scheduling recess before lunch can lead to positive outcomes such as increased food intake and fewer behavioral issues at recess (Green et al., 2019; Tanaka et al., 2005).

Research indicates scheduling recess before lunch can positively affect students' food intake and behavior. This schedule change could benefit students and future research conducted in this area could gain additional insight on any correlation between physical activity, lunchtime consumption, and classroom performance.

### *Classrooms as Restorative Environments*

A study can be designed to investigate the impact of thoughtfully designed indoor classroom environments on student cognitive performance and academic progress. This research would build upon existing theories and studies, focusing on three areas: integration of natural elements, spatial arrangement and visual clutter, and color schemes and overall design.

A study on the integration of natural elements would look at how incorporating natural elements and maximize the natural lighting in classrooms affects students' attention and academic performance, drawing on the Attention Restoration Theory (Kaplan & Kaplan, 1989) and recent findings by Baloch et al. (2021).

An investigation into the spatial arrangement and visual clutter could look at the optimal balance of wall displays and free space in classrooms, considering recommendations by Barrett et al. (2015) and findings from Rodrigues and Pandeirada (2018) on visual distractions and cognitive performance.

A study on a classroom's color schemes and overall design could explore the effects of various color schemes and design elements on student focus, well-being, and academic progress. This study would aim to quantify the collective impact of these indoor environmental factors on student performance, potentially expanding on the findings that suggest they may account for up to 16% of variance in academic progress (Terada & Merrill, 2023).

The results of this research could provide valuable insights for educators and school administrators in designing more effective learning environments that enhance cognitive functioning and academic outcomes.

### *Measurement of Academic Performance*

Part of this study focused on investigating the influence of recess on classroom engagement and utilized the Time on Task observational method to gather data. Although on-task behavior is an essential aspect, incorporating direct measures of academic performance, such as test scores and completed assignments, could offer further valuable insights into the correlation between recess and learning outcomes.

### **Summary**

This chapter detailed recommendations for educational policies aimed at the local building level based on the study's findings in response to the research questions that guided this dissertation:

- *Does increased outdoor recess influence a student's classroom engagement?*

A secondary research question associated with this study is:

- *What are educators' perspectives regarding Illinois's passage of The Right to Play Every Day Act?*

This study has yielded valuable insights into the impact of outdoor recess on student engagement, leading to several key recommendations. These include integrating recess thoughtfully into the school day, scheduling high-rigor academics after recess, promoting unstructured and child-led indoor recess, lengthening the school day, and the promotion of a professional development opportunity for elementary school staff on unstructured outdoor play and its impact on students. While the study's findings are promising, it is important to acknowledge its limitations, such as the small sample size, limited observation frequency, and lack of long-term follow-up. These constraints underscore the need for more comprehensive research in the future. Moving forward,

studies employing control and experimental groups across diverse school settings, evaluating the effectiveness of scheduling recess before lunchtime, studying the effects of classrooms as restorative environments, along with direct measures of academic performance will be crucial in further understanding the long-term impacts of increased recess time and classrooms designed as restorative spaces.

Despite these limitations, this study provides a solid foundation for future investigations and offers strategies for schools to maximize the benefits of the Right to Play Every Day Act. By continuing to explore and implement evidence-based practices surrounding recess and unstructured play, educators and policymakers can work towards creating more balanced, effective, and nurturing learning environments for elementary school students.

### **Conclusion**

Within the circle of academic discussions asserting the importance of recess in elementary school settings, a controversial issue has been whether increased recess time benefits or hinders academic performance. On the one hand, some argue that more recess time takes away from valuable instructional time. From this perspective, academic achievement should be the primary focus of the school day. On the other hand, however, others argue that recess is crucial for cognitive development and overall student well-being. According to this view, recess enhances students' ability to focus and learn when they return to the classroom. In sum, then, the issue is whether increased recess time enhances or detracts from student learning and development.

Concerning this study's findings, while the study's statistical results were inconclusive regarding behavioral improvements, the observed increase in on-task

behavior following outdoor recess is noteworthy. This suggests that even if the effects are subtle, they may accumulate over time to produce meaningful benefits for students' learning and development.

Time spent in soft fascination environments (e.g., outdoor settings) can relieve the demands of a child's executive functioning. While providing a break, indoor recess does not offer the same mental restoration as outdoor recess, and it is essential to note that gym class does not equate to a mental break. Though I concede that time spent outdoors is not a cure-all for increased test scores and positive shifts in student behavior, it can significantly benefit students' cognitive function and overall well-being. For example, this study showed increased on-task behavior following outdoor recess periods. Although some might object that the improvements in behavior were minimal, I would argue that The Right to Play Every Day Act is doing no harm to student behavior. This issue is vital because it impacts countless elementary school students' daily experiences and long-term development.

Ultimately, this research contributes to a growing body of evidence suggesting that outdoor time and play are not luxuries but essential components of a well-rounded education. As we continue to refine our understanding of how different environments affect learning and development, we may need to rethink the traditional notions of what constitutes effective learning and instructional time in schools.

The implications of this research extend beyond individual classrooms or schools. They touch upon broader societal issues such as the role of nature in child development and the balance between structured learning and free play in childhood. As such, this

topic remains vital not only for educators and policymakers, but for anyone concerned with the well-being and future of children.

I remember my early conversation with my third-grade teacher about educational policy and its shifts over the last thirty years. While I believe policymakers are well-intentioned in their efforts to improve education, my third-grade teacher and I agreed that educational policy is like a pendulum. However, now I think of it more as a playground swing.



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## Appendix B

### Teacher Interview Questions

Name: \_\_\_\_\_

Pseudonym: \_\_\_\_\_

Grade/Subject Taught: \_\_\_\_\_ Date of Interview: \_\_\_\_\_

1. How long have you been teaching?
2. What changes have you noticed within education since you became a teacher?
3. What are your thoughts on unstructured play?
4. What does recess look like for your class?
5. Do you notice any behavioral or academic changes in your students after recess?
6. What are your building's viewpoints on recess/unstructured play?
7. What does student engagement look like to you?
8. Do you notice a change in your teaching efficacy after a break?
9. What types of behavior illicit behavioral intervention in your classroom?
10. Are there any advantages and/or drawbacks to the additional recess break during the school day?
11. Do you offer your students breaks in addition to recess throughout the day?

12. Have you noticed any differences in students when they were given one recess break versus two?
13. In your opinion, do you feel recess should be mandated by law?
14. How have you been impacted by the change requiring two daily recess breaks?
15. Have you ever withheld recess from a student as a disciplinary consequence?  
Why or why not?
16. What would a school day look like if you could structure your day any way you wanted and teach whatever you wanted?
17. Is there anything you'd like to add that hasn't been covered in the interview?