University of Northern Colorado
Scholarship & Creative Works @ Digital UNC

Dissertations Student Work

5-2024

Exploring Imagination within Early Childhood Education

Leah Christian Naylor
University of Northern Colorado

Follow this and additional works at: https://digscholarship.unco.edu/dissertations

Recommended Citation

Naylor, Leah Christian, "Exploring Imagination within Early Childhood Education" (2024). *Dissertations*. 1060.
https://digscholarship.unco.edu/dissertations/1060

This Dissertation is brought to you for free and open access by the Student Work at Scholarship & Creative Works @ Digital UNC. It has been accepted for inclusion in Dissertations by an authorized administrator of Scholarship & Creative Works @ Digital UNC. For more information, please contact Nicole.Webber@unco.edu.

© 2024

LEAH CHRISTIAN NAYLOR

ALL RIGHTS RESERVED

UNIVERSITY OF NORTHERN COLORADO

Greeley, Colorado

The Graduate School

EXPLORING IMAGINATION WITHIN EARLY CHILDHOOD EDUCATION

A Dissertation Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Education

Leah Christian Naylor

College of Education and Behavioral Studies
School of Teacher Education
Department of Educational Studies

May 2024

This Dissertation by: Leah Christian Naylor

Entitled: *Exploring Imagination within Early Childhood Education*

has been approved as meeting the requirement for the Degree of Doctor of Education in College of Education and Behavioral Studies, School of Teacher Education, Department of Educational Studies

Accepted by the Doctoral Committee

_____
Christine C. McConnell, Ph.D., Research Advisor

_____
James A. Erekson, Ph.D., Committee Member

_____
Jean Kirshner, Ph.D., Committee Member

_____
Randy J. Larkins, Ph.D., Faculty Representative

Date of Dissertation Defense _____

Accepted by the Graduate School

_____
Jeri-Anne Lyons, Ph.D.
Dean of the Graduate School
Associate Vice President for Research

ABSTRACT

Naylor, Leah Christian. *Exploring Imagination Within Early Childhood Education.* Published Doctor of Education dissertation, University of Northern Colorado, 2024.

Imagination is a powerful mental process and integral to a child's development and education. Early childhood education is an ideal situation and time to explore, nurture, and provide space for imagination. The purpose of this research was to witness, document, and share the imaginative moments in three ECE classrooms and contribute to the important body of research on imagination.

Within this qualitative study, I utilized educational criticism to explore the use, presence, and implications of imagination in an educational environment. I found it was in the space afforded by teachers—which included time, opportunities for student choice and freedom, or open-ended supplies and objects to use—where student imagination occurred and was shared. I also found it was in asking questions, by teachers or peers, where students shared imaginative thinking. This is all significant in early childhood education, and beyond, and highlights aspects of education that need further discussion, exploration, and implementation.

*Keywords***:** imagination, early childhood education, intentions, curriculum, pedagogy

PREFACE AND ACKNOWLEDGEMENTS

This entire process and journey have been fruitful and educative for me, as a researcher, teacher, education consultant, and parent. My exploration into the imagination began four years ago during the pandemic, when I was drawn to this seemingly absent aspect of early childhood education due to my consulting work in preschools and was curious as to the potential implications of this absence in education. As an early childhood educator, I intended to spark imaginative moments through activities, stories, or books with the students to engage them. What I often found was the term *imagination* lumped unenthusiastically with creativity and play, and the so-called application of these terms consisted of play centers in the classroom and teacher-directed arts and crafts projects. Along with this, and why my presence was requested, there were escalated behavior challenges and exhausted teachers. I am glad to say this is not always the case, but sad to say it was what I most often witnessed. Due to these experiences, I have now researched, read, and taught about imagination for years and this dissertation has provided me with the space to use what I know, in order to better see what I think many educators are missing, and to illuminate, for myself and others, necessary information to inspire a shift in the potential value and role of imagination in education.

I am incredibly grateful for the space I have been provided to imagine and learn from so many in my life. The last four years have been amazing thanks to the brilliant professors and my *perfect* cohort. My wonderful family and friends have afforded me the time, space, support, and *love* throughout this journey, and we are all thrilled to have time to imagine together again now that this feat is complete.

TABLE OF CONTENTS

LIST OF FIGURES

Figure

CHAPTER I

INTRODUCTION

> Imagination enables you to step out of the here and now. You can revisit and review the past. You can take a different view of the present by putting yourself in the minds of others and can try to see with their eyes and feel with their hearts. In imagination you can anticipate many possible futures. You may not be able to predict the future, but by acting on the ideas produced in your imagination you can help to create it. (Robinson, 2017, p. 129)

As humans, we are born imaginative. We might have early childhood opportunities that enlighten our imagination through play, stories, experiences, and interactions and "bring into our mind things that are not present to our senses" or "go beyond the immediately given" (Takaya, 2017, p. 211). When provided, these opportunities have the "power to give unity and meaning to" our experiences (Takaya, 2017). Takaya (2017) wrote of imagination as one's inner drive to learn about the world, which could be nurtured or provided space. Yet Pratt (1948/2014) suggested this drive could be sooner lost and shut down when their imagination is not provided space and opportunities to surface, be shared, and encouraged particularly in early childhood education. In response, this research was intended to explore imagination in early childhood education (ECE) using the following questions:

Q1 What are the intentions of teachers who use or prioritize imagination within the ECE classroom?

Q2 How are these intentions operationalized in the ECE classroom?

Q3 How do opportunities and space to imagine inform the students' educative experiences?

The purpose of this research was to witness, document, and share the imaginative moments in three ECE classrooms and contribute to the important body of research on imagination.

Positionality and Researcher Stance

I spend a lot of time in early childhood education classrooms as an education consultant, college supervisor of student-teachers, instructional assistant, teacher, and mother. I have witnessed a few classrooms where curiosity and imagination are highly prized, encouraged, engaged, and provided space. I have been in many *more* classrooms where imagination is discouraged, denied access to conversations and lessons, and stripped from the learning environment. This is a present problem or challenge that I see within early childhood education and a potential source and contributor to the inequity pervasive in our larger society.

With that said, I have maintained an intentional awareness of my position on and connoisseurship of imagination throughout the exploration and research. I remain positioned alongside children and teachers as imaginative beings and will continue to serve as an advocate for the space and time dedicated and allotted for this mental process in an ECE classroom. As an educator and parent, having worked closely with young children for many years, I have witnessed and utilized the potency of imagination in shifting student engagement, behavior, and learning and in providing them a sense of belonging and being heard as an individual. Although I am positioned deeply within this belief system, I have sustained an explorative and open mind around the brilliant and bright minds of young children and their teachers with hopes of catching imaginative moments and sharing them with others.

It is my stance as a researcher that professionalism and trustworthiness is necessary in all research. I collected, analyzed, and am sharing the data with integrity; although my position or stance on imagination in ECE was present throughout, I remain transparent within my writing as to when something is observed or witnessed and when it consists of my positionality or connoisseurship through annotations throughout the research.

Those Before Me

I am not alone in my wonders about imagination and its necessary presence; many theorists, researchers, and 'experts' have explored and theorized on this topic. Some of these individuals highlighted the value of imagination and acknowledge the absence in education; others see imagination as the *most* important piece missing from school and advocate for full implementation of imaginative education. Paths have been paved, looking differently, yet these imaginative paths need more explorers upon them to allow others to see how space to be imaginative in early childhood education is beneficial and necessary, yet often missing from education.

Experts like Cobb, Egan, Robinson, and Judson, encouraged educators to consider the place for imagination within their learning environment. Edith Cobb (1959) affirmed that children who have the opportunity to imagine have a better grasp on 'reality' and can navigate through situations and circumstances better than those who do not have the opportunity to do so. Lev Vygotsky (1978) wrote about imagination as a vital tool that assists us in navigating the world. Kieran Egan (2005) saw the "engagement of students' imaginations as crucial to successful learning" (p. xi). Henry Giroux (2014) argued that the present functioning of education serves as a "disimagination machine" for both teachers and students (p. 491). Similarly, Sir Ken Robinson (20117) wrote heavily on the detriment of schools stripped of

imagination and creativity. Gillian Judson (2023) encouraged educators to see the power and practicality of imagination in ways we understand and make sense of stories and the world. These are only several examples of those imagination advocates I looked to for guidance, inspiration, and information and the body of research I contributed to in doing this research.

Definitions

There are many ways of seeing, perceiving, and therefore defining words. Although I chose definitions to utilize within this study, using many of the words from those before me, they remain *living* definitions and might shift and evolve as needed along the path of this exploration. The necessary terms to define for this research are the following: imagination, imaginary play, academic imagination, social imagination, imaginative education, and imagination capital.

Imagination. "The process of bringing to mind things that are not present to our senses" (Robinson, 2017, p. 178). Although I utilized this definition for this research, I also acknowledge the definitions of others who helped to fuel, inspire, and influence this definition. These definitions helped to provide myself and the readers with a more robust understanding of imagination. John Dewey (1938) defined imagination as our ability to look at things as if they could be otherwise and its exercise is not a flight into the purely fanciful and ideal, but a method of expanding and filling in what is real. Liu and Noppe-Brandon (2009) saw imagination broadly as the picture(s) or story(ies) we see in our mind or the idea(s) we get and "the capacity to conceive of *what is not* - something that, as far as we know, does not exist (or something that may exist, but we simply cannot perceive)" (p. 19). Takaya (2017) perceived imagination as our "capacity to go beyond the immediately given" (p. 211). Similarly, Gundogan (2019) considered our brain's ability to manipulate, reorganize, and connect what we take in through our eyes and ears

and turn it into something ‘unique and original’ as our imagination and, therefore, our human super power and what keeps the world and society evolving (p. 316). Caiman and Lundegard (2017) saw imagination as the “creative ability to form ideas and images without immediate, external sensory input” (p. 688). Lastly, I drew upon Magid et al. (2015) who saw imagination as “a medium of realizing the absent and significant” and a “cognitive mechanism for efficiently generating new ideas without observing new evidence” (p. 101) What all of these definitions had in common was the way imagination allows us to perceive or see something in our mind that is not currently present to our senses, which I continue referencing as I proceed.

Imaginary Play. The active engagement in activities where one’s imagination is expressed or utilized during play, whether independently or with others. This is often seen during dramatic play or pretend play. When we make characters (i.e., Barbies, cars, little people, LEGO) talk, move, or play, we are engaging in imaginary play.

Academic Imagination. The use of present or past sensory input to infer, predict, or hypothesize such as one would during reading, science, art, or mathematics.

Social Imagination. Occurs most often in, but is not limited to, social situations, yet not necessarily during play as one empathizes, assumes, or shifts their behavior in a direction they imagine to be best or even suitable for the situation or moment.

Imaginative Education. One where the teacher encourages, utilizes, and provides space and opportunities for children to imagine (Egan, 2005). This often includes the use of stories, narratives, imagery, emotions, wonder, and “intellectual inquiry” and demands that “engaging students’ imaginations is crucial to successful learning” (Egan, 2005, p. xi).

Imagination Capital. The collection and accumulation of skills and experience where one must imagine possibilities, alternatives, or novel ideas valuable to one's own well-being or community, school, organization, business, etc. whether financially speaking or otherwise. It is the opportunity to practice imagining, space to utilize our imagination, and the accruing of our ability to imagine that feeds our potential imagination capital. It is this imagination capital where inequity can be witnessed and perhaps 'measured' within a future longitudinal study. In theory, when young children are provided inequitable opportunities and space to imagine within the educational environment or school and their home environment, there is then an imbalance in 'asset' accumulation (i.e., ability to imagine). This imbalance or inequity has the potential to affect that child's potential in later education, interpersonal relationships, and future jobs.

Rationale, Curiosity, and Intentions

In our U.S. education system's continued drive to standardize and measure learning through "an education marked by standardization and prescription" (Bloom & VanSlyke-Briggs, 2019, p. 92), we often reduce imagination. This also perpetuates a system of hierarchy, a false sense of "normalcy," "stagnation," and merely a milquetoast education in which teachers and families choose to go elsewhere (i.e., private or charter schools; Bloom & VanSlyke-Briggs, 2019, p. 90). It is the investment in imagination and the space we provide our students to engage in activities that allow for the blending and balance of knowledge *and* imagination. It is the "anticipatory capacity used when engaging in activities" and "its power to give unity and meaning to their experience" that makes imagination so integral to a high-quality early childhood education; yet it continues to be excluded and deprioritized in schools (Takaya, 2017, p. 211). The intense drive for "standards and testing" have had a "negative effect on creativity and

imagination" in schools, due to the "rigidity, lack of flexibility and time within the classroom," and teachers' "sense of 'fear'" if expectations are not met (Harrison, 2012, p. 108). This lack was my rationale for exploring imagination in the early childhood classrooms; it is necessary, but not happening. I intend to better share with others what occurs in a classroom where imagination is present and valued, and in doing so, suggest a rearrangement of our current priorities in other early childhood classrooms where it might not be a priority.

I was excited to explore with teachers who are utilizing imagination in their ECE classroom and wondered what their intentions were in doing so. Further, I inquired as to how these intentions were operationalized or, in other words, how do their plans actually occur, look like, and feel like in the ECE classroom? I was, and remain, curious as to how opportunities and space to imagine informed the students' educative experiences. I witnessed how this space to be imaginative made a difference in the day of a child, the school year of a child, and therefore potentially the life of an individual.

Throughout this research, it was my desire to explore directly with the teachers and the main source of imagination—the children—to understand the potential and potency of this driving force. It was my intention to maintain an open and wide lens to see what I saw and share authentically. It remains my intention for others in education to see, acknowledge, and shift the space we provide for imagination in our early childhood classrooms. It remains my intention for our young children to imagine even the unimaginable because they are provided with the space and encouragement to do so.

Methodological Overview

Due to my interest in assisting "others to see and understand what may otherwise go unnoticed" in early childhood classrooms, I used a qualitative framework of educational

criticism throughout this study (Uhrmacher et al., 2017, p. 17). Educational criticism has allowed me to tap into my knowledge and experience (i.e., connoisseurship), my positionality (i.e., teacher, parent, and imaginative individual), and my deepest interests and curiosity to explore the potential of imagination.

This study occurred in three early childhood classrooms focusing on exploring the presence of imagination. Three teacher-participants were selected using snowball sampling due to their use of imagination in their early childhood classroom. Initial interviews occurred with each teacher before eighteen hours of observations in their learning environment. With Eisner's (2017) "dimensions of school ecology" in mind (p. 76), I entered the classrooms with an eye on intention, curriculum, and pedagogy through teacher implementation and student experience and learning. Applicable artifacts were photographed and follow-up interviews were also held for clarity and elaboration after observations were completed.

I elaborate on the methods utilized in this study throughout Chapter III. This was followed by Chapter IV, in which I share stories, describe the experiences, and relay interpretations of the data collected and analyzed. Chapter V weaves the material together and provides space for answers to the research questions, discussion, and implications. Prior to Chapters III, IV, and V, it is Chapter II in which prior literature and research on imagination are reviewed and a base of knowledge is established.

CHAPTER II

LITERATURE REVIEW

> Imaginal knowing is not fantasy, but is linked to the way humans imagine the real world. Imaginal knowing moves the heart, holds the imagination, finds the fit between self-stories, public myths, and the content of cultural knowledge. It is deeply personal, yet open to the universe. The curriculum is the medium through which imaginal knowing is evoked in both teachers and students. (Leonard & Willis, 2008, p. 3)

As I maintained space for exploring the 'unknown unknowns, I preliminarily explored applicable research literature as stepping stones and initial threads of information, and utilized the following research questions as cairns throughout my exploration:

Q1 What are the intentions of teachers who use or prioritize imagination within the ECE classroom?

Q2 How are these intentions operationalized in the ECE classroom?

Q3 How do opportunities and space to imagine inform the students' educative experiences?

Within this chapter, I share theories and previous research on imagination that assisted in framing my process throughout this project. The theories served as "guides to perception" throughout data collection and analysis and in presenting the broader context of research on imagination, I found potential gaps in information that my research might help to fill (Eisner, 2017, p. 95). I used key players such as Egan, Takaya, Robinson, Dewey, and Liu and Noppe-Brandon to position myself within the research and present insights needing further exploration.

The purpose of this research was to witness, document, and share the imaginative moments in three ECE classrooms and contribute to the important body of research on imagination.

Imagination

Imagination, for consistency throughout this research, is defined as, "the process of bringing to mind things that are not present to our senses" (Robinson, 2017, p. 128). We know it as a "mental capacity which is part of a line of development that begins in the earliest symbiotic interactions" and as an integral aspect of brain growth and child development (Mayes & Cohen, 1992, p. 25). Although imagination is sometimes seemingly intertwined, it is actually a separate term from creativity and innovation, yet related. What we might create or share is the *application* of our imagination or creativity. Innovation is when that *something* we created is new or novel (Liu & Noppe-Brandon, 2009). With our imagination in action, we can shape and reshape what and how we see and modify it as we like, which is when innovative ideas surface and change the world as we know it (Weick, 2006). Our brain's amazing ability to imagine allows us to manipulate, reorganize, and connect what we once took in through our eyes and ears, yet turn it into something unique and original, which keeps the world and society evolving (Gundogan, 2019). Gundogan (2019) viewed imagination as the "greatest power given to humanity" (p. 322) and although this was a bold statement, many others also exclaimed the potential our imagination holds because they have witnessed imagination.

Fauconnier and Turner (2002) drew our awareness to the science of imagination and affirmed that as we continue to study the workings of the mind, imagination is the next step in doing so. Brooks (2002) began his article, *Light Shows of The Mind*, by saying, "Einstein was right when he said that imagination is more important than knowledge" (p. 1) and he used Fauconnier and Turner's book, *The Way We Think*, to reiterate their belief that the imagination is

next to be studied more in-depth. Egan (2005) stated that "imagination is crucial to successful learning" and encouraged teachers to put imagination at the center of education where it serves as the "most powerful and energetic of learning tools" (p. 9). Shank (2015) referenced Egan and further stated that imagination is "central to *all* learning" and "an extraordinary tool of making meaning and sense of abstract concepts," which is much of what early childhood education consists of (p. 8). Everything begins as an abstract concept and through exploration and support or guidance, we begin to make mental connections and learn; one's imagination supports this process (Shank, 2015). Enciso (2017) declared that imagination "entails the effort to manage gaps in time between what is, what has been, and what might become" (p. 31) and enables us to ask and answer what if, which is integral to reading and writing acquisition and reading comprehension (Liu & Noppe-Brandon, 2009; Singer & Jerome, 2005). Children are naturally inclined to ask in many ways, what has been, what is, and what if, and these questions or curiosities are their bridges to learning in every subject matter. What if we used these questions to guide their learning? What if there was trusted space for sharing and expressing 'what-ifs'?

Imagination in Education

To accompany much of this theorizing, researchers have explored several topics on imagination and imagination in education. Gotlieb et al. (2016) researched how "social imagination facilitates deep learning and creativity in the classroom" (p. 22) and found that "authentic experiences ignite" imagination (p. 25). Fleer (2013) explored how "affective imagination works in science education in the early years" (p. 2086) and discovered the importance of creating or applying "scientific meaning to activities" for children when engaging the imagination (p. 2104). Egan (1992) found that imagination provided context for our classroom experiences and Dewey (2004) deemed imagination as the tool for students to make

meaning and form connections among the materials within their education. These researchers directed their research toward an educational space and sought, or continued to seek, evidence to support the place for imagination within schools.

Although findings such as these supported the use of imagination in schools, Heath (2008) theorized that imagination has been "marginalized in education" regardless (p. 115). There remained this perceived present tension between standardized education and imagination. Unfortunately, our historical and much of our current educational system teaches linear ways of thinking and knowing only and devalues the divergent or imaginative ways, perhaps because linear is more predictable and 'manageable' and this is what I often saw when in classrooms outside this study (Robinson, 2017). The imagination can be perceived as unpredictable, spontaneous, and elusive to some and therefore uncontrollable, yet observe a child using their imagination for a few moments and one will notice the control they have in transitioning to a less imaginative task nearly immediately (Naylor, 2021). Caiman and Lundegard (2017) cited Egan and Dewey in declaring that the imagination expands our views of our experiences and enables us to apply and connect with prior knowledge to better problem-solve. This innate ability is in the foreground of human thinking and processing and enables us to take-in or perceive a situation or idea, make connections within our brain, expand our already growing schema, and think more broadly, largely, and innovatively due to our imagination (Singer & Jerome, 2005). These divergent or imaginative ways of thinking and knowing are just as necessary to our learning, specifically in early childhood education, as the more perceived linear and logical ideas, yet a critical missing piece in many classrooms (Gotlieb et al., 2016). "Imagination-oriented mindsets are important" for making connections among content knowledge and ideas and the present state of "overly emphasizing task-oriented focus, like testing, while providing

little support or opportunity for reflection or meaning making" compromises the making of vital connections and understanding (Gotlieb et al., 2016, p. 22).

Perhaps this neglect is influenced by common misunderstandings. Takaya (2017) suggested that when considering the curriculum and structural components of early childhood education, some might claim that while engaging with student imagination we eliminate organization and order. This does not have to be the case. Flexibility is required within these areas for imagination to be nurtured, yet not an elimination of (and flexibility is already a necessary element of education and teaching). Knowledge and imagination are vital. I am not suggesting that education eliminates specific content instruction and sharing of knowledge; rather, we implement and support the imagination when exploring or learning such. The need is to integrate the imagination into the systematic ways of thinking, organizing, and functioning; yet how does this happen in an already crowded curriculum (Comber et al., 2022)?

A crowded curriculum indeed; yet imagination does not need to crowd it more but enhance what needs to be taught and engage the students more efficiently. This might require a curriculum inspection; yet "investing in social–emotional imagination through curricular and instructional changes may allow students to learn traditional academic content in a more fulfilling and long-lasting way" (Gotlieb et al., 2016, p. 23). For this to occur, one's curriculum provides opportunities to engage imagination, yet the pedagogy or instructional approach is the area to inspect instead. This area presented an interesting exploration for me as to whether the curriculum or my teacher-participants' pedagogy would influence imagination in different or notable ways.

Imaginary Play

Imaginary play is the active engagement in activities where one's imagination is expressed or utilized during play whether independently or with others. This is often seen during dramatic play or pretend play. When we bring our characters (i.e., Barbies, cars, little people, LEGO pieces, etc.) 'to life,' we are engaging in imaginary play. When we build a house (i.e., out of chairs or cardboard bricks), where we will live, or make 'pizza' for our friends in the play kitchen, this is imaginary play.

Recent research "indicates that children who, early on, engage in pretend play are also likely to be more amiable, persistent, and conscientious" as well as more cooperative, positive, and practice self-control better (Singer & Jerome, 2005, p. 24). To 'pretend,' one must use their imagination to create a world or situation that does not actually exist outside of our minds and can be an independent activity or done collectively. Through pretend play, often seen in early childhood education, children create entire scenarios in their mind as they play (sometimes with toys or other children or with specific 'props') where they work through the frustrations, excitements, tears, dramas, fears, or even just emotionless mundane activities (for adults at least), such as cooking or driving, and have the opportunity to do so in a safe and healthy way. This is where they practice for 'real life' interactions and events by imagining them first. Through this play, they practice being amiable, persistent, conscientious, cooperative, positive, and having self-control; therefore, with 'real' people and in 'real' occurrences, they have more and more success at fully embracing and applying these positive, desirable behaviors. Shank (2015) in their analysis found that a higher level of imaginative thinking, what they labeled as innovation, was able to occur because of the time and space they were provided to play imaginatively; they highlighted the systematic attempts at stifling imaginative play in order to focus on early

preparation of students from low socio-economic backgrounds in ECE. This lack of imaginary play was often what I unfortunately witnessed in the field of ECE with children who could most benefit from space and encouragement for this cognitive act.

Current research indicated that imagination "makes it possible for us to function in the world, natural and social, and to thrive even in conditions of adversity" (Shuffelton, 2012, p. 318). This is due to the emotional competency imaginative play helps children to develop. Through free and imaginative play, children conceptualize and develop the ability to differentiate between the world in their heads and the world outside; and because they have practiced imaginary challenges or hurdles and worked their way through them, the real-life ones do not seem so big or difficult anymore. Taylor (2013) suggested "that the simulation of imagined social scenarios involving self-and/or others contributes to the development of real-world social understanding" (p. 6). These children who practice working out intrapersonal and interpersonal conflicts, imaginary or real during their playtime, are better equipped to tackle them outside of play and later in life when, for some, it seems to matter most (Shuffelton, 2012). What if all young children had the opportunities to work out conflicts safely and supportively with imaginative play and stories? What if our 'adult' conflicts worked out better because of this practice?

Academic Imagination

Although imaginary play is vital, there are other beneficial opportunities to apply or provide space for imagination within early childhood education. Academic imagination is connecting present or past sensory input to infer, predict, or hypothesize such as one would during reading, science, art, mathematics, or any academic subject. There are many opportunities to fit the academic imagination within an existing curriculum, yet often there are not. This is

because imagination has been an undervalued and underrepresented cognitive function in teacher certification programs, and teachers are subsequently unsure how to embrace or handle the complexity of a child's imagination. There *are* teachers who provide the necessary space for imagination, specifically in literacy, and I sought to witness and document the ways. These teachers "integrate play into the context and curriculum of the classroom" through their pedagogical practices (Shank, 2015, p. 165). This exemplifies that it is more than just the "what" they are teaching, but "how" they are teaching which matters (Shank, 2015).

Literacy is full of opportunities to ask and share ideas on "what if," whether it is as we predict or infer what might happen next in a story or book or when we are doing a picture walk with a young child. As we author stories or tell stories, we are utilizing our imagination constantly as we determine what happens or might have happened next. We can change the story, literally and metaphorically, when we encourage the use of and provide opportunities for young children to imagine in school. Additionally, creating and interpreting symbols, an important skill in early childhood, and creating analogies, a higher-level thinking process that aids in the ability for self-reflection, are both developed with the practice of using one's imagination (Modell et al., 2003). I was curious if a child whose imagination has been devalued or discouraged lacks or lags in learning and strengthening these skills. As educators in early childhood, we explore the use of symbols at the very beginning (letters, numbers, shapes . . . these are all symbols) and progress into more complicated symbols soon after (maps, in grade one and simple or complex algebraic expressions +/- etc. in grade two). What if children who regularly utilize their imagination are better equipped to create and understand symbols and analogies? Would they, theoretically, be more adept at learning and understanding reading, writing, math, etc. where symbols apply?

Along with the skills of symbol making and interpreting and understanding and using analogies, the imagination is also credited for strengthening one's ability to process and make meaning of events and ideas (White, 1993). Most any aspect of life consists of some sort of mental processing and making meaning of events and ideas; education is one constant mental process after another. We encounter information, form connections, or make meaning of every bit of information we take in and are doing so constantly. This can occur either consciously or unconsciously, so some individuals may not know it is happening at times. It is the practice or job of our imagination to process, percolate, and perpetuate the incoming information and turn it into something else; and although it is innate, the practice of using our imagination can also be taught (if one forgets) and strengthened (Liu & Noppe-Brandon, 2009). I wonder what we would find if we compared a classroom in which the teacher spent time to model, exemplify, or practice-out-loud the using of our imagination, as many teachers do when they teach writing through story telling or science through inquiry-based learning techniques, with a classroom where writing was rote and scripted from the textbook? They would gain the same information or knowledge (though I doubt it), but how would this show up or surface in other areas of processing information? If incoming information does have the space or opportunity to be interpreted or transferred into something meaningful or is unable to connect to other information in our brain, that info often disappears from our mind. When we have a strong practice of using our imagination, we are better equipped for incoming information. We can assimilate and accommodate the information to fit into our existing schema and expand our breadth of knowledge and information. Incorporating the imagination into early education would assist in the particularly useful practices of processing and making meaning of information, as well as

"persistence and attentiveness to tasks" used throughout schooling (Shah et al., 2017). What if this was customary practice in ECE?

Takaya (2017) stated imagination has anticipatory power and when we form a hypothesis; for example in science, we are utilizing what we know, stirring it around with a bunch of what-ifs in our mind (or with others), and making an educated guess. This is very much like inferencing and predicting, both taught and practiced in literacy and require a bit of imagination because we are bringing to our mind things that are not currently present to our senses. We might or might not be creating something through our experiment or being innovative, but we are imagining. This needs space in education. What if we gave it space?

The imagination can be conscious and deliberate or unconscious and intuitive, and either form could be utilized in early education (Liu & Noppe-Brandon, 2009). We might observe a phenomenon, see a fault or failure in the system, and set forth with intention to imagine a better way of functioning or being. Or we might sit quietly, undisturbed for moments at a time to allow for any imagining to surface and inspire. Sometimes we might cling to a drifting image in our mind, play around with it further and make something of it. Or we might simply notice our mind stirring upon an image in our mind and instead allow it to drift on by. Once we begin to embody and tinker with something imagined, it can begin to exist and influence the world outside of our head (Maksic & Pavlovic, 2008). This influential possibility is powerful and motivating for children (and adults) and encourages more tinkering and imagining. When we are not provided space (i.e., time or acknowledgment) to imagine, this ability, or power, can weaken, like anything else left unpracticed. Because imagination is foundational to our learning, to our creativity, and to our changing the world, we need more time to imagine in education,

particularly (but not limited to) within early childhood education (Liu & Noppe-Brandon, 2009; White, 1993).

We strive, as early childhood educators, to use best practices such as relevancy and differentiation; yet, what makes education relevant to children and applicable to their lives and abilities is when they can ask and share their personally imagined what-ifs and ideas in a supportive educative environment (Liu & Noppe-Brandon, 2009). These what-ifs and imaginative ideas can "give unity and meaning to experience" and often allow children to perceive "how individual pieces of information or steps may be related meaningfully" (Takaya, 2017, p. 211). We invest so much on curriculum and then reinvest a few years later on the newest one. Imagination is free and "upgraded" and changing organically without an increased financial cost. Imagination is a "critical and necessary feature of learning," yet often negated from curriculum (Jones et al., 2008, p. 8). What if imagination was included in all curricula?

Social Imagination

In addition to imaginary play and academic imagination, we see social imagination, which occurs most often in, but is not limited to, social situations, yet not necessarily during play. As one empathizes, assumes, or shifts their behavior in a direction they imagine to be best for the situation or moment, they are utilizing social imagination and forming an "intelligent grasp of their environment" (Griffiths, 1935, p. 354).

Empathy and our ability to acknowledge others' perspectives and solve problems are desired human traits and strengthened with our imaginative superpowers (i.e., our imagination) (White, 1993). Familiar to any educator, there are expensive and often multi-faceted positive behavior systems that districts purchase and use to teach empathy, perspectives, and problem-solving skills. Not to put these curriculum developers and writers out of business but would not

some practice in social imagination or imaginative play in early education save districts money (to which they could spend elsewhere like on paying teachers more)? These pricey programs have been designed to 'fix' the problems we created as an education system. When four- and five-year-olds are expected to sit for hours at a time and pay attention to the learning directed at them, they find ways to cope with the system. Depending on the child, they either conformed to the expectations or questioned or challenged this system or way of schooling and became labeled a troublemaker or behavior issue. What if young learners spent more time hearing stories, playing, asking questions, creating elaborate and simple adventures either in their minds or aloud with others, and all within a nurturing and supportive environment which enabled the imagination?

Not only are conflicts worked out in one's imagination but a child often uses their imagination to create a world in which they discover and rediscover themselves. This exploration of the self and the world (whatever world that may be at the moment) produces a deeper knowledge of one's 'real world (Cobb, 1959). They are able to see the multiple options and perspectives or situations that could be possible in their world (a useful tool as we age). Children who have the opportunity to imagine have a better grasp on reality and can navigate through situations and circumstances better than those who do not have the opportunity to do so (Cobb, 1959). Children who have the opportunity to imagine are more likely to solve problems in creative ways and internally work through their emotions and thoughts in a healthier way (McConeghey, 1994; Shuffelton, 2012). Children who have the opportunity to imagine make better judgments and choices when given the chance to do so because they have imagined the possible outcomes or practiced during interactions (or in their mind) for an opportunity such as this (Osborn, 2011).

Opportunities to practice imagining are important within education and it is one's culture, experiences, and beliefs that shape what we imagine (Brooks, 2002). Likewise, our culture, experience, and beliefs are shaped by our imagination; therefore, we have constant choices in how we experience and see the world and how the world sees and experiences us. We, as imaginers, can reshape our beliefs and culture to ones that serve the whole. We, as imaginers, can recreate and reinvent the world, and our experiences of it, into one that best serves us and/or the whole. We, as imaginers, can serve the whole as we share the superpower of imagination with others around us. What if we imagine more?

Imaginative Education

Kieran Egan (2005), an educational philosopher and professor at Simon Fraser University, suggested we imagine more. In his research, he focused on child development, imagination, and the "engagement of students' imaginations being crucial to successful learning" (p. xi). His wonderful book, *An Imaginative Approach to Teaching*, aimed to "show how increased focus on students' imaginations will lead to improvements in all measures of educational achievement" and maps out areas or provides a "tool kit" for teachers to consider when creating their curriculum and better working with their students within an imaginative education framework (Egan, 2005, p. xi).

Egan (2005) provided explanations and examples in the classroom of what he calls "primary cognitive tools," which are vital for teaching and learning (p. 2). These cognitive tools are among the following: story because this "is one of the most powerful cognitive tools students have available for imaginatively engaging with knowledge"; metaphors, as they "enable us to see one thing in terms of another; binary opposites because they are often "emotionally charged and imaginatively engaging"; rhyme, rhythm, and pattern, which have the "power to engage the

imagination"; jokes and humor in how they assist in "encouraging flexibility of mind"; mental imagery due to an "image carrying more imaginative and memorable force than concepts alone"; play because the act encourages the 'understanding of norms" and "self-control"; and mystery due to the natural engagement of curiosity and a sense of adventure (Egan, 2005, p. 2). Egan stated that "the aim of imaginative education is much more knowledgeable students who are able to think flexibly, creatively, and with energy about the knowledge they gain about the world and experiences" (p. 9). Pratt (1948/2014) claimed that a child's "firsthand experience would always inspire their imagination better and result in a more meaningful store of knowledge" and that their "inner drive to learn about the world" would be lost "unless they were encouraged to use their imaginations to explore the world through play and expressive activities" (p. 73). These claims support imaginative education and experiential and exploratory learning, which are praised pedagogies. Imagination does not need to be an isolated idea or practice but is rather easily incorporated into most pedagogies and curriculum. It can also serve as a guiding principle of practice throughout pedagogies and curricula as it does in imaginative education.

Imaginative education makes sense in application because "stories can be the beginning point for understanding imagination as social practice" and stories are an integral component to literacy acquisition and development (Enciso, 2017 p. 66). Specifically, in early childhood education, even before being able to formally read or write, we can listen to and tell stories. Stories and books read aloud encourage children to be engaged auditorily, visually, and tactically in the process of recreating the story in their mind using their imagination. Egan (2005) specifically stated that an "increased focus on students' imaginations will lead to improvements in all measures of educational achievement" and encouraged teachers to consider the imagination when planning or teaching the curriculum (p. 8). This again reiterates the idea that imaginative

education does not need a curriculum of its own but can be utilized with many existing quality curricula. Both teachers and students are affected by an imaginative education; all can be provided space to imagine. What if we valued this space more?

Imagination Capital

I am suggesting that for this exploration we use the term imagination capital to describe the collection and accumulation of the skills and experience one must imagine possibilities, alternatives, or novel ideas, which are of value to one's own well-being or the value of a school, community, organization, business, etc. whether financially speaking or otherwise. We speak of and write about other forms of capital, such as human capital, in education reform and education research and imagination capital is just as integral to our investment in childhood education and experiences in preparation for adult prosperity. It is one's opportunity to practice imagining, space provided to utilize one's imagination, and therefore the accruing of one's ability to imagine that feeds our potential imagination capital. This became a term in my research because I have witnessed the inequity which exists presently in ECE due to some children being provided space for imagination and others not. Although this remains a theory for now, I used this as a prefigured focus throughout this study and hoped that others begin to see the piece imagination plays in all of this. I theorized that when young children are provided inequitable opportunities and space to imagine within the educational environment or school and their home environment, there is then an imbalance in asset accumulation, or in other words, their ability to imagine. This inequity or lack of opportunity, which has not been researched as much, has the potential to contribute to and perpetuate future inequity and widen the gaps in education achievability and success.

The technology we have today, from electricity, to plastic grocery bags, to computers have all been invented and reinvented, created and changed, updated, and restored by people who used their imagination. Adults, like children, imagine things all the time and often make amazing things happen. Any entrepreneur who started a business imagined the possibilities first, gained information and knowledge (hopefully) on the necessary steps and then made it happen (Brooks, 2002). Immigrants imagined the possibilities of relocating and what that new place could offer them, and then moved forth. Early settlers in America wondered what was west of their present space. They imagined the glory and feared the unknown but took a chance and ventured onward to explore the West (Brooks, 2002). Jeffery Bezos imagined selling books online. Nicolas Tesla imagined a unique way to provide energy to objects and Elon Musk imagined using this for cars. Beethoven imagined music in his mind. He composed entire musical masterpieces within his imagination prior to ever writing anything down on paper or playing it on any instrument. The creator of Whole Foods Market imagined an organic grocery store, took the steps to plan it out, made the investment, and made it happen. These are all adults using their imagination and making things happen. These individuals ended up being highly successful due to their imagination capital, or their ability to imagine what if.

Imagination is cognitive, but also emotional. The narratives we have in our minds, due to our imaginations, can be positive and uplifting or downright detrimental and self-defeating. These narratives or stories originate cognitively but create emotional reactions within us and can be interpreted as sources of fear, sadness, excitement, or drive. Such imaginative stories have the power to cause anxiety or to depress, particularly when we are unaware of them. Yet, they have the power to awaken us and move us to inspiration and action. It is this piece of awareness that can shift our stories or imagination to serve us or not. This too is a taught practice, and can be

modeled through "thinking out loud," just as an educator would do to teach the imagination itself (or literacy skills alike). The early learning of these basic skills of imagination and awareness have beneficial life-long effects on the functioning and thriving throughout the stages of life.

Our bureaucracies, education included, are cluttered with broken or mishandled systems; however, "routinizing the exercise of imagination," as Liu and Noppe-Brandon (2009) suggested, would shift the way things are handled or processed (p. 11). "Imagination is both a portal and an action through which we might 'see things as if they could be otherwise'" (Greene, 1995, p. 378). This way of seeing "otherwise" is vital in rehabilitating such systems. Some teachers have chosen, within their own classrooms, to imagine and provide space for their students to see otherwise. This changes the world in subtle and big ways (and causes magical things to happen in the minds of those 20ish children each year). "Imagination is not a character trait or quality, but a transformative experience, that heightens our awareness of our own and one another's humanity" and only requires space within the school day (Enciso, 2017, p. 31) In addition to these students and teachers, there are also imaginers who fought against district bureaucracy without success or change and therefore turned to starting small school systems on their own with brilliant, imaginative ideas and systems in place; and where the imagination is vivid and alive in the administrators, teachers, children and just about everyone who walks into their classrooms. What if the practice of imagination began at the top of public-school systems as well, with visionary policy makers and administrators (the adults) and waterfalled downward?

Although our imagination can venture into daydreams or be experienced as make-believe, it also takes us into the future with "what ifs" and "places where logic and calculation don't really help us" (Brooks, 2002, p. 30). This is where inventor of alternate current motors and generators, Nikola Tesla, credited his imagination by saying, once he "gets an idea, I begin

building it up in my imagination, making changes and improvements and building and operating it in my mind" before ever physically constructing it (Singer & Jerome, 2005, p. 22). Chemist, Friederich August Von Kekule credited his imagination for atomic discoveries (with atoms) as he wondered upon a new possibility within his simple daydreams (Modell et al., 2003). French mathematicians, Henri Poincare and Alain Connes, on separate accounts, both acknowledged their imagination for their ability to make vital discoveries during times of wonder and mental explorations rather than intended study or calculations (Modell et al., 2003). Einstein "practiced visualizing things in novel ways" when young and asked himself, "what if" regularly when looking at the world around him (Liu & Noppe-Brandon, 2009, p. 11). What if early childhood educators encouraged what-ifs to be asked and explored, for all children?

There are some main studies that are like mine, which I will continue to reference as I collect my own data and annotate such as Takaya (2017) and Shank (2015). Yet, there remains a need or purpose, which I am hoping to contribute to through my own research, around imagination within ECE. Takaya stated that the imagination gets its "greatest opportunity during play, including playing with ideas, in establishing relationships," and through a "child's firsthand experience, which always inspires their imagination better and results in a more meaningful store of knowledge"; therefore, we must inquire into what else is lacking in a classroom without play or firsthand experiences (Pratt, 1948/2014, p. 15). Is imagination still possible or present in such classrooms?

Shank (2015) opined that "educational environments are rife with subtle uses of imagination" yet speaks of the immeasurability such a cognitive practice includes (p. 6). My data and analysis proved similarly because of the elusive nature of imagination, yet, due to my clear definitions and knowledgeable eyes and ears I was able to witness "a hidden unacknowledged

use of the imagination as a daily occurrence" in the learning environments through my research and have found areas that require further exploration (Shank, 2015, p. 55).

This chapter was intended to present a broader context of imagination and examine areas in which there may be space for further research. It is my further intention to explore the areas of social imagination, academic imagination, and imaginative play more in depth as to how they surface within the learning environments. Chapter III elaborates on the methodology utilized in seeing this more, throughout this project.

> It is the ability to imagine that allows children to adapt to and understand the world around them at a rapid pace. Most adults view the childish 'magical thinking' of imagination and play as subordinate functions of the brain, a by-product of childhood. But children use them to wrestle with new concepts, develop understanding, and establish relationships between what they have learned. (Shank, 2015, p. 11)

CHAPTER III

METHODOLOGY

Within this chapter, I elaborate on the process of the project. This includes explanations of the utilized conceptual framework, connoisseurship and criticism, lenses, and methods of data collection and analysis. I also provide pertinent information about the teacher-participants and the school. I asked the following questions to guide my research:

Q1 What are the intentions of teachers who use or prioritize imagination within the ECE classroom?

Q2 How are these intentions operationalized in the ECE classroom?

Q3 How do opportunities and space to imagine inform students' educative experiences and how or what are these students learning?

To answer the questions and with an authentic interest in assisting "others see and understand what may otherwise go unnoticed" in early childhood classrooms, I utilized a qualitative framework of educational criticism for this study (Uhrmacher et al., 2017, p. 22). Educational criticism allowed me to tap into my knowledge and experience (i.e., connoisseurship), my positionality (i.e., teacher, parent, and imaginative individual), and my curiosity to explore the potential and presence of imagination in early childhood education. The purpose of this research was to witness, document, and share the imaginative moments in three ECE classrooms and contribute to the important body of research on imagination.

The collection of data throughout this study occurred within three different early childhood classrooms within one school with the focus on exploring the presence of imagination in both teaching and learning experiences. Early childhood is considered as birth through age

eight and known for the expansive and opportunistic time of development. Using Eisner's dimensions of school ecology as guidance, I entered the classrooms of inquiry with an extra eye on teacher intentions, curriculum, and pedagogy (Uhrmacher et al., 2017).

Conceptual Framework

Throughout my present exploration of the imagination in ECE, I used my experiences and knowledge, the present research literature on the topic, and existing theories to frame my research (Ravitch & Riggan, 2017). my experiences, personal worldviews, and paradigms led me to the topic and therefore this is where I began the process and my data collection and analysis (Creswell, 2007). I was aware of how my experiences as a preschool and elementary teacher, university professor, educational consultant, mother of three young children, and researcher in the area of ECE accompanied me throughout this research; and rather than attempting to remove myself from this research, I maintained my many lenses and connoisseurship, and acknowledged my ways of knowing while collecting and analyzing data in order to co-create a more robust understanding for myself and others of all that could be witnessed, captured, and utilized throughout this research (Uhrmacher et al., 2017).

I utilized the work of previous theorists and researchers on imagination to frame and develop my own inquiries and process, and I focused on the area of ECE. I was aware there were likely others presently interested in this area and therefore the review of literature did not end when my research began but rather it continued throughout the process and beyond.

In addition to my experiences, knowledge, or connoisseurship and the existing literature on imagination in education, Eisner's theory on the dimensions of school ecology assisted in framing, strengthening, and scaffolding my research (Uhrmacher et al., 2017). This theory brought awareness to specific facets within the learning environment in regard to imagination

such as intentions, curriculum, and pedagogy and the ways in which they intersected (Uhrmacher et al., 2017). My research questions were also focused on these facets within the participants' classrooms (Eisner, 1991). This theory remained a 'foothold' throughout this research, which allowed for organization and freedom, assisted me to see what might otherwise go unnoticed, and explored relationships and connections within the data more clearly (Eisner, 1991; McConnell et al., 2023).

In addition to the dimensions of school ecology theory, I also applied a "critical approach" and an "advocacy perspective" as my response to the current society, in which the "systems of power, prestige, privilege, and authority serve to marginalize individuals who are from different classes, races, and genders" (Creswell, 2007, p. 241). I believe that using a critical theory lens within this research presents an opportunity for more awareness of marginalization or inequity and for change (Creswell, 2007). Within this critical lens, I utilized the brilliant words of Emilie Townes (2016) in seeing the imagination as a space for all children, not for a special select few and her encouragement to inquire into how we utilize imagination within teaching with integrity, vision, courage, and passion to guide me further.

In qualitative research, we are attempting to witness and share human narratives clearly and authentically (Merriam & Tisdell, 2016). It was my intention to capture these stories and experiences including the 'whys' and 'hows.' I actively sought to witness the possible viewpoints of the case through the multiple perspectives of children, teachers, and my own lens and utilized my research questions as continual guides.

Educational Criticism

I utilized educational criticism, a style of qualitative inquiry throughout this project because I believed it would allow me to fully explore the presence of imagination in ECE using

connoisseurship and criticism (Uhrmacher et al., 2017). Connoisseurship involves one's knowledge and the senses to apprehend a present experience; therefore, I used my experiences as an educator, education consultant, and parent to guide my perceptions throughout the research (Uhrmacher et al., 2017). Additionally, I strongly believed in the power and potential of imagination, which directed my "way of seeing" throughout this project, yet also allowed me to see further and "appreciate" more than I would otherwise (Uhrmacher et al., 2017, p. 14). Uhrmacher et al. (2017) used "appreciation" to "recognize the particulars of the case at hand" and therefore better "make sense of or identify reasons" for specific actions or behaviors (p. 14). This act of appreciation was utilized throughout this project, yet I also included criticism to better reveal to others my exploration and findings (Uhrmacher et al., 2017).

Connoisseurship

It was within this research and all educational criticism where the "act of knowledgeable perception" or "connoisseurship" was utilized and emphasized (Eisner, 2002, p. 215). This was why my "location," as bell hooks called it, experiences, and knowledge remained with me throughout the research to better see and appreciate all that could be witnessed (Eisner, 2002). My "conception of the world" fueled this research and permitted me to see more fully how and when the teachers and students utilized imagination within their school day together (Uhrmacher et al., 2017, p. 11). It was my positionality and connoisseurship that allowed me to see what others might miss because I am an imaginative person, teaching about the imagination to anyone I engage with, and a strong advocate for the power of imagination within our learning, growing, and being in this world. It continues to be my intention to appreciate the classroom versus evaluate or assess the occurrences. I am a connoisseur of the imagination and remained so as I explored further and applied this connoisseurship throughout this research.

Criticism

Accompanying connoisseurship, I used "criticism" as "the art of disclosure" and it was my goal to assist others in seeing imagination within ECE classrooms (Eisner, 2002; Uhrmacher et al., 2017, p. 2). I sought to appreciate and note what I saw occurring in the sample classrooms regarding imagination. It remained my intention, as a critic, to elucidate and illuminate the occurrences of, reasons behind, and value of imaginative experiences. I continued to focus on the "perception of qualities, interpreting significance, and appraising value," which I hoped to share with others who might not have the opportunity to witness the action within these ECE classrooms and to inspire what might otherwise go uninspired (Uhrmacher et al., 2017, p. 14).

Structure and Elements of Educational Criticism

Essential to educational criticism are the four elements or dimensions: description, interpretation, evaluation, and thematics (Eisner, 2017). These elements provided a structure, not a script, for my research process and served as "tools with which to work, not rules to follow" (Eisner, 2017, p. 89). They were not necessarily linear but constant and cyclical.

Description began immediately as I engaged in data collection through intentional and focused field notes of observations and during interviews. I continued, throughout analysis and writing, with rich, narrative descriptions designed to elicit a similar sense of knowing for the reader as there was for myself, the researcher. I was selective with what I captured and shared to authentically express the qualities of the learning environment in relation to imagination and thus siphon out the pieces less applicable to this study (Eisner, 2017). This focus of capturing, siphoning, and describing as a connoisseur and critic permeated this project and were vital aspects of all educational criticism.

Simultaneously, I consistently interpreted the data throughout the project using annotations. These annotated interpretations were intended to be the transition between the seeing and the understanding during data collection and provide smooth analysis. The interpretations provided meaning, depth, and connections and how we, as researchers, "make sense" of the data and descriptions (Eisner, 2017, p. 98). The "sense" did not surface after one observation, interview, or even initial analysis; instead, it was among the multiple days' worth of data and looking closely when interpretations began to elucidate meaning and recurring messages for me. I elaborate further in Chapters IV and V.

The evaluative piece or aspect of educational criticism is in determining the "educational value" of the witnessed experiences (Eisner, 2017, p. 102). I saw this tool as I perceived assessments as a teacher to inform or guide our next steps as teachers and to ensure that what we were doing was working or how we might shift if not working (i.e., if learning was not occurring). To see what was working, I utilized my notes on student behavior in response to teacher behavior to evaluate the educational experiences.

Within this project, I describe the learning environment and experiences witnessed, share insightful interpretations of the collected data, and provide evaluative wisdom regarding imagination in ECE. These elements told the story and the development of themes provided the point. Thematics, used in educational criticism, is the process of "identifying the recurring messages that pervade the situation about which the critic writes" (Eisner, 2017, p. 104). These recurring messages or themes aided me in inductively answering my research questions and led to better understanding imagination in ECE.

Criticism and Critical Theory

Both criticism and critical theory were used throughout this research and it is important to clarify their differences before proceeding. Criticism was the method, or an important piece (along with connoisseurship) of the method, I utilized to collect and analyze the data. As mentioned above, it was my role as a critic, using the act or method of criticism, to elucidate and illuminate all that I witnessed within the research (Uhrmacher et al., 2017). Criticism is further the disclosure of the data and seeks to reveal or unearth relationships among the data (Eisner, 2002; Uhrmacher et al., 2017). Differently, critical theory was the lens through which I perceived and shared the witnessed data. Critical theory attends to the power and hierarchical structure of the classroom, investigates the inequity of the curriculum or opportunities within the learning environment, and serves to "challenge the systems of power and oppression, demanding deep-seated changes to the dominant status quo" (Chunoo et al., 2020, p. 46). A critical theory lens further took on an advocacy perspective throughout this research (Creswell, 2007). Although both the act or method of criticism and the lens of critical theory complemented and ran parallel with one another throughout this research, they were not a one in the same concept, yet both were integral to my work as an educator and researcher.

Dimensions of School Ecology

I intended to attend to all pieces and aspects of the learning environment in my data collection, yet in utilizing Eisner's (2017) dimensions of school ecology, I looked more closely at the intentional, curricular, and pedagogical dimensions. Because these three dimensions are not isolated pieces of a learning environment, I consistently looked for relationships among the three and at how opportunities and space to imagine informed the students' educative experiences.

The intentional dimension looks at the aims or goals actively stated, written, and or employed in the learning environment (Eisner, 2017). These intentions exemplify what a teacher values but might also point out the possible "discrepancy between what educators say they want to achieve and what they actually do when working with students" (Eisner, 2017, p. 73). With this dimension in mind, I asked: What are the intentions of teachers who use or prioritize the imagination within the ECE classroom and how are these intentions operationalized in the ECE classroom? This operational aspect drew in the curricular and pedagogical dimensions to the data and where I might have found connections. While focusing on the intentions of the teachers through individual interviews, I also noted student learning and engagement during observations. Similarly, student learning was also attended to when looking at the curricular and pedagogical dimensions.

The curricular dimension looks more specifically at the content and activities the students are engaged in. I looked more closely at how the curriculum was being interpreted and understood by the teacher, taught, and then understood by the students (Eisner, 2017). During observations, I also inquired as to whether the students were engaged and as to what they were learning, exploring, or practicing; my artifacts intended to serve as symbols of imagination within their learning.

The pedagogical dimension looks at how the teachers teach the material and how learning is occurring. It also looks at what is being modeled, rewarded, or reinforced by the teacher. We can consider pedagogy as the personal "signature that individual teachers give to their work" and I sought to notice the "productive diversity rather than standard uniformity" among the teacher's pedagogies through classroom observations (Eisner, 2017, p. 77).

Teacher Participants and School

The teacher participants, along with their classroom environments, were selected purposefully to "lead to information-rich cases for in depth study" and "learn a great deal about" imagination in ECE (Glesne, 2016, p. 50). The stratification criteria for this study, as Glesne (2016) suggested establishing, consisted of the following: (a) research site being one of early childhood age (birth to eight years), (b) Teacher participants who claimed to use or engage the imagination within their classrooms, and (c) diversity among the three participants. I found three research participants using snowball sampling and I sought teachers who prioritized, intended to, or utilized imagination within their curriculum or pedagogy (Glesne, 2016). Although I originally set out to include three teachers from three different schools within my study, I remained flexible when three teachers in the same school were interested in participating together as a team.

These teachers received a recruitment letter (see Appendix A) through email. Once the potential teacher participants had been recruited, their administrators were notified of this research. I officially requested permission for this research to occur through an email (see Appendix B). Upon this being signed, I collected basic information on the school through a Google form for the teachers (see Appendix C). Shortly thereafter, I asked the teacher participants to formally consent to this research (see Appendix D) and the administration sent the parents an email notifying them of the occurrence of this research (see Appendix E). As this all was processed and completed, I simultaneously built rapport and trust with the participants through a few emails and an in-person introduction to jump right into the data collection when appropriate. I also sent them a Google form to complete (see Appendix F) that asked them to choose a pseudonym to use throughout the research. With all forms signed, everyone's

permission granted, and Institutional Review Board approval was obtained (see Appendix G), I began data collection.

The overall learning environment in my study was both relevant and connected to me. The school was a familiar one in which I taught many years ago when it was newly established. I remained connected to this school because my children had attended or were presently attending, and I served on the Board of Trustees (BoT). I was no stranger to the mission and vision of the school, which was focused on the environment and project-based, experiential, individualized, and interdisciplinary learning. The curriculum and most teachers, however, were unfamiliar to me at the beginning of my study yet became less so through the weeks I was present in the school as a researcher.

The school had grown in tremendous ways over the past 14 years to now serve 459 students from 21 local school districts. Forty-eight percent of the student population identified as non-White and 37% of the total student population were considered economically disadvantaged. As a charter school, it is publicly funded and free for students to attend and required to meet the same standards and expectations of the state's public schools. Although it was not the home district, 40% of the student population came from a neighboring (remarkably close) city-based district that had some present academic and economic challenges.

Only a few teachers had remained since the inception and a specific growth of new teachers had occurred over the past five years. The school historically functioned within a charming old mill with makeshift walls and gradually accumulating classrooms. They recently moved to their now "forever home," which housed a local publishing company in the years prior to their purchasing the building. They are continuing to grow by adding their final class of eighth graders next year and developing the external lands for outdoor classrooms and learning;

however, class sizes intentionally remained lower than local public schools and community engagement was strong.

I had hoped to have a teacher participant from this school in my study, yet I was invited for so much more. Upon asking one kindergarten teacher a basic preliminary question, whom I had never actually spoken with before, about whether she used imagination within her classroom, we unexpectedly and immediately connected over the topic. This teacher, who I now refer to as TK, responded with a resounding “yes” and immediately followed it with “wait, I think so.” She mentioned encouraging students to imagine they were trees when they were learning about them and I agreed with that being imagination. It was a very brief conversation; however, the next day when I saw TK again, she enthusiastically and unprompted let me know she had been thinking about my question more. This was when she shared some ideas as to how she and her kindergarten colleagues used imagination differently in their three classrooms. She mentioned how one of her colleagues involved “Disney” in her classroom often and the other really used the “letterland” characters and secret stories she believed were imaginative. This teacher had spoken to her colleagues and invited them to participate with her, and they agreed. In relaying this information to me, it was then clear that these three teachers could be my participants, which would allow my collection of data throughout the study to occur within three different early childhood classrooms with the focus on exploring the presence of imagination in both teaching and learning experiences, yet within one school. The teachers were not pressured or even encouraged to partake in this research; rather, they were intrigued by the topic and were willing to partake as a team.

I chose kindergarten for my research because they are often held to the same standards and expectations as all other elementary grades yet have the responsibility of transitioning a

learning environment from what preschool often offers (with play as the focus and less structure) to that of elementary standards. It was fair to assume that the use of imagination could be more acceptable or invited into kindergarten learning than in the older grades. It was also true that more academic "learning" was expected in a kindergarten classroom over preschool classrooms. With these two factors in mind, I chose kindergarten for my research and sought three teachers who claimed to use imagination in some ways within their teaching and learning. These three teachers, who became participants, claimed to fit my criteria in differing amounts and ways; with all necessary permissions, I began spending more time in this learning environment collecting data and exploring imagination.

All types of learning environments have the capability of communicating values and expectations and therefore it is a school's responsibility to be aware of the messages the prepared learning environment is sending to the students (Kochanowski, 2022). This school studied environments in a more intentional way than most others through their focus on the environment as an integrating context (EIC), which is intended to permeate and connect all aspects of their curriculum and pedagogy (State Education and Environment Roundtable, n.d.). Their overarching EIC framework saw every environment as holding a potential learning experience, whether it be inside their school building, in town, or out in the woods.

The EIC framework designates pedagogy that employs natural and socio-cultural environments as the context for learning while considering the best practices of successful educators and was formulated to narrow the "achievement gap" in education (Lieberman & Hoody, 1998, p. 7). The use of this framework encouraged interdisciplinary, differentiated, and experiential lessons taught within teams across grade-level or vertically. Research conducted on the EIC framework showed that "on average, the EIC students outperformed their peers from

traditional programs" and language arts skills grew in multiple areas when students were "allowed to explore the environment and related community topics" and were "resented with extensive opportunities to present" their learnings (Lieberman & Hoody, 1998, p. 10). Within the classrooms in my study, however, EIC appeared to be used more as their science curriculum, co-created by the teachers, rather than an all-encompassing framework. I was excited and curious to enter the classrooms, interview teacher participants, observe, or take photos of artifacts; yet I took preemptive moments to check-in mentally with myself before the first visit through the last due to the roles I played in this school's environment as parent of students and BoT member. I needed to maintain my connoisseurship and researcher lens or 'hats,' yet mentally remove my parental and Board of Trustee hats temporarily. I was to hone my awareness and attention solely to imagination, one focus, present. There were moments, indeed, when I found those hats had somehow found their way back onto my head and another check-in and mental reminder and removal of hats were required. This practice, a reflective one, brought me more fully into the role of researcher as I came into these kindergarten learning environments for the first time through the last and throughout data analysis. During data collection (i.e., anytime I was in the school), I refrained from any board-related conversation and reminded the teachers, when appropriate, that I was visiting and present as a researcher rather than any other roles I otherwise played in the school.

Data Collection

Data collection consisted of recorded and transcribed initial individual interviews with the teacher participants, then classroom observations of both teaching and learning, photographs of applicable artifacts, followed by follow-up interviews with the teacher participants. They chose their pseudonyms (on the google form) and I interviewed them (recorded and transcribed)

separately utilizing five open-ended questions (see Appendix F) pertaining to imagination and their teaching prior to classroom observations. They received the questions prior to the interviews that lasted about an hour each. As mentioned above, these interviews were transcribed and added to a Google doc where all other data were collected. Questions were then formulated from the data in the initial interviews and observations and asked in a follow-up interview with the teacher participants.

Next, I observed classrooms and teacher participants for 18 hours each over three consecutive weeks during normal school hours and functioning. Using a broad focus, I attended to the learning environment and the participants in this environment (Glesne, 2016; Uhrmacher et al., 2017). I maintained a field log (same Google doc as interview transcriptions) through the entire data collection process. I included anecdotal notes on all I saw and heard while observing throughout the page. Within a small column on the right-hand side of the page, I wrote all I thought and wondered in those moments using “observer comments" in response to the observations (Glesne, 2016, p. 77). My notes were “descriptive and analytic” as well as specific and accurate and led to a smooth analysis (Glesne, 2016, p. 75). When imaginative moments arose during observations, I highlighted the text and noted initial codes for Pedagogy (P), Curriculum (C), and Advocacy (A) on the right-hand side of the page where I also wrote additional thoughts, ideas, and inquiries in response to these observations and in regard to my research questions. I noticed repeated ideas and notes among the initial codes and annotations written alongside the observation notes. Within these repetitions, patterns and themes were visible. These themes helped to “distill the major ideas that flow through” the data and construct theories in response to my research questions (Uhrmacher et al., 2017, p. 54).

In addition to the interviews and observations, I collected photos of artifacts when applicable to the research. The photographs were taken from the actual artifacts to reduce further interference or obstruction to the learning environment. These photos included objects such as student work, creative projects, or objects used. The photos of the artifacts were sent directly to my computer from my phone and included in the Google doc along with the interview transcriptions and field notes in chronological order and with italicized annotations for further analyses or connection. My final formal time in each classroom consisted of a follow-up interview with the teacher participants in which I reviewed some observed data for clarity and approval, asked clarifying questions pertaining to the observations or collected artifacts, and expressed my gratitude for the opportunity they provided me within their learning environment (see Appendix H for data collection timetable).

Trustworthiness and Validity

In maintaining an "alertness to the quality and rigor" of the study, I collected and utilized various forms of data (Glesne, 2016, p. 53). This triangulation of data consisted of interviews, observations, artifacts, and constant and ongoing reflection. Shenton (2004) defined trustworthiness as having credibility, transferability, dependability, and confirmability. In this research, credibility, or measuring what we intended to measure, was met using clearly and commonly defined terms, common language throughout data collection and analysis, and the development of descriptive, emergent, and consistent themes. This research had transferability, or the ability of our results to be transmitted to other classrooms or research, through clearly stated, rich descriptions of the research environments and participants for others to "understand the content for my interpretations" and due to "prolonged engagement and persistent observations" (Glesne, 2016, p. 53). Dependability, or the likelihood that if repeated with the

same methods and in the same context this study would yield comparable results, was ensured through descriptive field notes, providing interview questions and transcripts of responses, and thus allowed for ease of replication. Confirmability, or the accuracy with which the data were recorded and true to the participants' responses, was met through member checking and verifying all gathered data with the teacher participants, repeated reviewing of the field notes and interview transcripts for accuracy and consistency, and peer review and input (Glesne, 2016). All interview transcripts, observation field notes, and photos of artifacts were saved in one Google doc, added to throughout collection and analysis, and transferred to a Word doc when complete.

Validity, "or the state of shared belief," was addressed and met through consistency and "structural corroboration" (Eisner, 2002, p. 237). Various data points "establish(ed) links, which eventually create a whole, that is supported by the bits of evidence that constitute it," which required a holistic perspective and cyclical and simultaneous collection, analysis, and presentation of the data (Eisner, 2002, p. 237). Also adding to the validity was the sense of "referential adequacy," which verified the "relationship" among my notes and words with the actual learning environment and illuminated imagination in early childhood education to stir new ideas for others (and myself) to consider further (Eisner, 2002, p. 239). "Member checking" was also utilized during my follow-up interviews with the teacher-participants as I requested clarification from them regarding my data collection (Merriam & Tisdell, 2016, p. 246). I utilized specific member checking in relation to potential power dynamics during the research process and responses from teacher participants were shared for transparency. I asked purposeful interview questions of the teacher-participants in both the initial interviews and within the follow-up interviews to acquire accurate and relevant information to apply to the larger body of research on imagination in early childhood education (Merriam & Tisdell, 2016).

Researcher Stance, Positionality, and Connoisseurship

As the data were collected, analyzed, shared, and discussed, it was important that I was aware of and made clear to others information related to my personal lenses and worldviews (i.e., positionality), preconceived ideas and notions on imagination in ECE (i.e., researcher stance), and prior knowledge (i.e., connoisseurship). I intended to make this apparent through my use of annotations, which were distinguishably noted from my field notes. For clarity and transparency, I separated the terms of researcher stance, positionality, and connoisseurship with brief explanations. Positionality was used to define one's "world view," personal and professional lenses, and the "position they adopt about a research task and its social and political context," which I shared previously in reference to all my prior experiences in ECE and in utilizing the imagination to engage, learn, and redirect behaviors (Holmes, 2020, p. 1). I also reiterated my current connections with the research site as a parent of students and a present BoT member. I was clear to the participants that I was observing as a researcher, not BoT member or parent, and seeking knowledge on imagination alone, not other school functioning. Researcher stance is the position one takes prior to the research on a given content area. It was my stance or position, as a researcher on the topic of imagination, that this capability was a necessary element of child development to consider in education; I made this position or stance clear within my annotations, throughout analysis, and apparent within the discussion and presentation of research. Connoisseurship is the researcher's use of "their abilities" and knowledge to "guide their perceptions" (Uhrmacher et al., 2017, p. 9). Eisner utilized the term "epistemic seeing" to describe the "interdependence between sensory experience and ways of knowing" (Uhrmacher et al., 2017, p. 10). It was due to my ways of knowing and seeing imagination utilized in ECE that allowed me to engage in and share this research. Together, positionality, research stance, and

connoisseurship are complementary and have blurred lines yet are necessary to consider and make visible as I chose to qualitatively explore using educational criticism throughout this research and remained transparent and authentic in my contribution to the body of research on imagination.

Specific Member Checking Regarding Potential Power Dynamics

Due to my position as both a parent of students attending the school and as a BoT member, there was the potential for perceived power dynamics within this study. In addition to my verbal transparency with teacher participants about my intention to attend to the data as a researcher only, *not* as a BoT member or parent, I utilized member checking to specifically inquire about their experiences as well. After data collection, I asked the teacher participants about their perceptions of my role as parent and BoT member while researching. A response was "It actually didn't faze me because I had a researcher before, like last year, in my classroom. I forgot all about it." Another response was "I didn't really think about it much when you were in. You were Leah, a teacher like me. I trust you." These answers eliminated the potential for perceived power dynamics and allowed for authentic, trustworthy research to occur.

Data Analysis

I intended to formulate and relay a story of the analyzed data and annotations through analysis so readers could better see what I witnessed (Eisner, 2017). With collected data, alongside annotations of descriptions, interpretations, and evaluations I identified "recurring messages" and thematics to form a full picture to share (Eisner, 2017, p.104).

Analysis and data collection began simultaneously and continued throughout the process with the use of annotations rather than coding; I annotated during interviews, alongside interview transcriptions, during and after dialogues with teacher participants and even impromptu

conversations with students, about photos of artifacts, and noted vignettes. These constant annotations helped to describe and recreate the story authentically and gradually.

In reading and reviewing the transcriptions, fieldnotes, and annotations, there were "recurring messages" and patterns among the data that "permeate(d) and unif(ied) situations and objects" (Eisner, 2017, p. 104). Rather than any "isolated" pieces, I "focused on the relationship among the complete picture" through the words of participants, collected through interviews and observations, the visual representations, through artifacts, and my annotations throughout (Eisner, 2017, p. 104). These woven pieces of interpretations created the story, and "explain(ed) the meaning" of imagination within the context of the learning environments of inquiry (Eisner, 2017, p. 104).

Throughout the above process of qualitatively inquiring in three kindergarten classrooms with three teacher-participants, I maintained a keen eye on what occurrences involved imagination, and analyzed the intentional, curricular, or pedagogical dimensions within (Uhrmacher et al., 2017). A cyclical collection of data and notes from interviews, observations, and artifacts, and analysis led me to see the recurring messages that developed into themes. These developed themes surfaced in response to my research questions and were of value to me, yet also for readers involved in ECE (Eisner, 2017; Uhrmacher et al., 2017, p. 104). In the next chapter, I describe and interpret my findings and share the stories of my explorations within this study.

CHAPTER IV

DESCRIPTIONS AND INTERPRETATIONS

> Being imaginative suggests being in pursuit of ideas driven by curiosity and fascination about the subject/task without being too much concerned about the judgment given by others; if the product happens to be judged excellent, it would be nice, but it is merely incidental. (Takaya, 2004, p. 85)

Descriptions

Within this research space, I utilized Eisner's (2017) dimensions of school ecology to draw my attention toward the three elements of teacher intentions, the utilized curriculum, and the pedagogy of participant teachers in the realms of imagination. I also held close the following research questions and used them to guide me throughout data collection and analysis:

Q1 What are the intentions of teachers who use or prioritize imagination within the ECE classroom?

Q2 How are these intentions operationalized in the ECE classroom?

Q3 How do opportunities and space to imagine inform students' educative experiences and how or what are these students learning?

I separated these questions and dimensions for descriptive purposes in this section, yet they were woven back together through later interpretations. I also attempted to separate the stories of classroom occurrences to represent the forms of imagination: academic, social, and play. The purpose of this research was to witness, document, and share the imaginative moments in three ECE classrooms and contribute to the important body of research on imagination. To best share my findings, this chapter consists of descriptions and stories; as within educational criticism, the

"rich or thick" description provides the evidence on which interpretations are built and continues with interpretations. I describe the learning environments for the readers to better see what I saw. I describe the teachers for the readers to meet who I met. I describe the teacher's intentions, curriculum, and pedagogy for relevancy and connections throughout this study to help answer my research questions, and to get us all exploring imagination in early childhood education *more*.

The Classrooms

The overarching learning environment in my study was the school; yet it was the smaller parts or classrooms that formed and made the system function as intended. I looked more closely at these individual classroom environments throughout my data collection and analysis in exploring the teacher's intentions through their organization of the classroom, providing of classroom materials to students, and overall structure of the learning environment; these were indicative of what a teacher found of value or priority. These intentions and actions within a learning environment heavily influenced behaviors and learning in the classroom (Kochanowski, 2022). Further, I looked at how these learning environments afforded imaginative experiences.

Classroom One: Simple and Aligned

There was a cleanliness and simplicity in the aesthetics and organization of Mrs. B's classroom. There were three small windows with the shades up in this classroom, allowing light to permeate the space. As I entered the classroom from the bench-lined hallway, cubbies were found on my right, where students knew exactly how to put their lunches, snacks, and water bottles, two built-in closed cabinets for teaching supplies, and 20 desks, all facing the board. Nestled inside the 'u' shape of desks, resided a rectangular carpet near the board where students gathered for many teacher-directed activities. Further over to the left was a small "u" shaped area

with shelves full of organized bins of toys, more cubbies filled with picture books in bins (for the teacher to use for read-alouds), and a kidney-shaped table which served as both the teacher's desk and a meeting place for small group work (specifically reading groups). At the opposite end of the room from the door, there was a dollhouse with furniture organized and placed within, a small play kitchen area, which was shared with the student library, and featured a small carpet and table in the center of this area. Lastly was the bathroom, which was directly next to the kitchen/library/dollhouse area. Students were often found at either their desks, on the carpet area near the board, or in a small group seated at the kidney-shaped table for learning activities. During free play, the students were spread out throughout the classroom and permitted to utilize objects from the "u" shaped area and kitchen/library/dollhouse area.

The walls were 'decorated' with the letters and blends from Letterland, a utilized literacy curriculum, in various areas around the room. These posters were colorful and vibrant and large enough to be used as resources during work while sitting at desks or at the kidney-shaped table in reading groups. The Letterland train hung above the white board along with several anchor charts for the mathematics curriculum including small posters of hands indicating ten-finger-counting.

Classroom Two: The Woods

Although similar physical organization and decor as Mrs. B's, TK's classroom had a different light to it. There were two small windows that looked out onto the playground and a door that led directly out to the playground space. A small area, as I entered the room, served as teacher storage and where some small groups met due to the potential privacy and isolation from other activities. The flooring was green and beige, consistent with the other rooms throughout the school, with a small carpet, also consistent with other classrooms, in the "Meeting Meadow"

near the whiteboard. The Meeting Meadow was surrounded by desks in a squared ‘u’ shape. A bathroom was in one corner of the room near the shelves lined with toys and activities for freeplay and the shelf for snacks, lunches, and water bottles.

This room had a teacher-proclaimed “woodsy theme” featuring areas of the room labeled to encourage this theme. There was the Meeting Meadow, which was the carpet and meeting area near the white board. Behind the desks was the “Imagination Lake” with cubbies full of baskets of toys like magnatiles, chain links, etc. This was next to “Campfire Stories,” which featured soft logs and “flames” to “build a fire,” log-like cushions to sit upon or use as a table, stuffed animals (ones which would live in the woods), and bins of books to read. The kitchen area was next to the Campfire Stories and was a very popular place during free play throughout my observations. Next to the kitchen area was a kidney-shaped table used for small reading groups and which also served as the teacher’s desk.

Hanging on the walls were colorful posters of the Letterland characters in multiple places. Another poster read:

We Wonder . . . About Trees

What do flowers on trees do?

Why are there nuts on trees?

What do the roots do?

Why do leaves fall down?

Photographs of families and friends hung in one area on the wall and on the bathroom door a child-size skeleton was hanging. In another area were drawings of hands holding up fingers to symbolize numbers and counting, just like in Mrs. B’s room. The calendar, which they built each month, was near the whiteboard, along with the schedule, which was referred to throughout the

day. Under the whiteboard was a “Whole Body Listening” poster and a “We Always” poster labeling pictures of students who “Listen and follow directions,” “Are kind to others,” “Take care of everything in our classroom,” and “Try our hardest even if it's hard.” Nearby was a wheel that spun, featuring “hello” in different languages, which they used each morning during Morning Meeting to determine their greeting. An “Investigations World Wall” with words such as “System, Natural, Social, Body Systems, Tree, Trunk, Branches, Leaves, Roots” hung near the board and another poster with “I Love words: to, said, you, where, your, want, who, one” listed as well. Behind where the teacher sat during carpet time was a small sign that said, “I teach, what’s your superpower?”

Classroom Three: Disney

It appeared that space was Hastings’ classroom’s superpower. Ashley Hasting’s classroom was a large, mostly square-shaped corner room with five south-facing windows with the shades mostly drawn. In the far corner of the room away from the door was the kidney-shaped table, which, yes, also served as the teacher’s desk with seven stools (which spun) tucked underneath; behind it were shelves of organized teacher supplies. Next to this table was an obvious play area housing the play kitchen with a baby in a high chair sitting at a small child’s size table, old cell phones (very popular among the students), large wooden blocks, and two 2x4 cubbies of blue and gray bins full of separated toys and puzzles. The bathroom was alongside this area, opposite from the kidney-shaped table area. In another corner of the room was the library where students *could* read and included a bin of stuffed animals; yet it was often used for playing school or as a stage for performances (from what I saw). Near the whiteboard, just as in the other two classrooms, resided the carpet area with rectangles that served as the student's

carpet spots. The desks were in the middle of the room in connected straight lines, all facing the white board.

On the wall were some Disney-themed posters with the words “create, learn, explore, and inspire” alongside the letters and blends of the Letterland friends. The students’ “Hopes and Dreams” were displayed alongside paintings of their names. A poster that read “Bark of the Week” hung next to the white board that stretched most of the length on one side of the room. Student and teacher birthdates were displayed on another wall on Mickey Mouse-shaped heads. The words “I am” were displayed above a mirror in yet another area and a quote from Walt Disney hung behind the kidney-shaped table featuring the words “Ideas come from curiosity.”

The Playground

Ideas for playing and imagining flowed freely on the playground, which served as an important learning environment for the students. Even the mere word had meaning: a *ground* on which we *play!* There were multiple areas on which to play: the blacktop, the gaga pit (a small and circular fenced-in area where students throw a ball at or to other students in aims of getting them “out” similar to dodgeball), and the mulch on the play equipment (climbing wall, slide, climbing tires, logs) and around this equipment. The mulched area with play equipment was mostly tree-shaded and was sandwiched between the school building and the plant framed creek bed. The blacktop was partially shaded from the trees over the mulched area and the school building and full sun in the other areas. When given the opportunity, the students spread out among all the areas. They had access to hula hoops, balls, cones, and jump ropes they used in various ways. Although the creek ran alongside one edge of the playground, it was not accessible to students during recess and a chain link fence lined the blacktop with a train track on the

opposite side. Trains often used this track and at least once during each recess, a train would pass by noisily; yet most students are unfazed by its passing.

Other Classrooms

While walking between classrooms, I could hear the train rumbling outside, yet most students were oblivious or even immune to its sounds. I followed the students during periods where the teachers had planning time to get the full experience and, therefore, spent some time in the gym, art room, Environment and Ecology classroom, World Language classroom, and Library. The floors and walls of each classroom were also green and beige and there was an intentional consistency of general decor and organization throughout the building. The art room had four large tables and stools where the students sat together. The library featured various areas: the upper level for choosing books and the lower level with a carpet area to sit upon, and round tables with stools to sit around. The gym was a large mostly-empty space with markings on the floor to direct the students or of some use for particular games or sports. Environment and Ecology and World Languages both had similar arrangements as the art classroom, with longer tables and stools for students to sit and face one another, but also included a carpet area for the students to sit on near the white board.

The Teachers

For the individual interviews, each teacher chose to sit at the kidney tables in their classrooms. During these interviews, I asked the three teachers the same questions (see Appendix F) separately with which they were provided prior to our interview. Each teacher was asked to define imagination in their own words, to discuss how they presently utilized the imagination in their classroom(s), and how they currently saw their students utilize imagination in the learning environment. They also spoke about how they intended to (or hoped to) use imagination in their

classroom; how the current curriculum supported, hindered, or interrupted (etc.) imaginative moments, and if or how they might think about equity in a child's opportunity to imagine and inform their experience in/of school.

Teacher One: "Expand" Student Ideas

Mrs. B was skeptical and warned me, nearly immediately, that I might not "see all that I want to see" when in her classroom. She was not completely clear in the ways in which she used imagination and admitted to not thinking about all of this as much as her colleagues. She had been teaching at this school since "the beginning" (i.e., 15 years) and was confident in the ways she managed her classroom. She had worked in education for 33 years and found this school to feel like home. She saw imagination as "being able to put yourself in different scenarios" and assumed the time spent in Letterland (literacy curriculum), with read-alouds, and during free play were where imagination surfaced in her classroom. Mrs. B appreciated the use of jokes because she wanted her students to "enjoy being in school" and ask questions to provide space to "let them [the students] think about it" and to encourage "higher level thinking" and engagement. She thought that maybe she used imagination to "expand" on the teaching of content, yet was very confident she had not given the use of imagination much consideration prior to our initial interview.

Teacher Two: "If You Wrote the Book, What Would Happen on the Next Page"

As mentioned prior, TK prepared her classroom with a woodlands theme. Her room featured a campfire area with cushions and stools that looked like tree stumps and stuffed logs to pretend to build a campfire. The Meeting Meadow was a carpet area where the students met as a whole group for morning meetings, literacy, and number corner. TK might not have initially considered student (or her own) imagination when creating her theme and designing her

classroom but she was very intentionally creating a learning environment within her classroom that emulated their explorations outside of the classroom (i.e., the forest). As an observer, TK appeared to genuinely enjoy teaching and interacting with her students. She had been a kindergarten teacher at this school for nine years and in education for a total of 13. She was structured and consistent with the schedule, routines, and expectations; yet she was also willing and supportive in hearing student ideas and questions, even when off topic. She would gently ask them to "hold that thought in your mind and tell me during freeplay" if there was no time to share at that moment.

Within our initial interview, TK saw imagination as "pictures in your head" and found she often utilized imagination during reading instruction, Letterland, writing prompts, and "of course" free time (specifically "in the kitchen area!!"). Imagination "makes it [learning] feel not as hard'' and she preferred to allow the students to "come up with their way of doing something." An example of a question she liked to ask the students when reading was "if you wrote the book, what would happen on the next page" and encouraged them to use their imagination to make predictions. TK perceived benefits in using imagination to make connections with one another and play. She felt that "standards hinder" the use of imagination throughout the day and that all of the things they "must" do took away from opportunities to be more imaginative with her students.

Teacher Three: Get the Students "Wondering"

Ashley Hastings had been teaching for a total of five years and only at this school. Similarly to the other teachers, she defined imagination as "a picture in your mind" and assumed that "maybe" she used imagination when going "through letterland" or telling the "secret stories" of Letterland, with finding patterns in math, and during EIC activities. She saw imagination

present during free play and recess, specifically while playing with the food from the kitchen and playing "house." Ashley suggested she might see imagination when asking the students questions such as "what do you think could happen" during read-alouds. She did believe that during EIC time (i.e., science) her intention was to get the students "wondering," which frequently led to imaginative moments.

Imaginative Education

Imaginative education, as Egan (2005) defined it, is one in which the teacher encouraged, utilized, and provided space and opportunities for children to imagine including the use of stories, narratives, imagery, emotions, wonder, and intellectual inquiry (Egan, 2005). The three teacher-participants in my study provided some space for imagination. The Letterland stories and narratives were space to imagine. The EIC investigations often lent space to imagine and wonder. Mathematics left opportunities to imagine and inquire as well. Although Egan deemed curriculum" as "the medium through which imaginal knowing is evoked in both teachers and students" (p. 99), I found more pedagogical opportunity during my observations. It was whether the teachers found the space to imagine or think independently (not necessarily alone) and shared these thoughts to be a priority that led to more imaginative moments (or not). Perhaps (and hopefully) the students were internally processing, imagining, and thinking in other ways; yet outwardly, the students were often moved away from the space to imagine and to the space to be told what to do instead.

Egan (2005) reminded us that both teachers and students are affected by an imaginative education and that *all* are provided space to imagine. I do not believe all of these teachers felt *they* had the space to imagine. They each shared with me, during initial interviews, the demands of the curriculum and standards and did not find many opportunities for imaginative moments. If

teachers were taught that engaging students' imaginations was crucial to successful learning," how would they shift their teaching (Egan, 2005)?

Interpretations

Along with the descriptions, each important piece involved interpretations necessary to fully understand the information discovered. What I remained aware of throughout this exploration led to these interpretations (Eisner, 2017, p. 96). The dimensions of school ecology were discussed first including teacher intentions, curriculum, and pedagogy. This led us to the more specific ways in which the various forms of imagination were utilized by the teacher-participants.

Intentions

Within the initial interviews, I asked the teacher participants about their intentions in using imagination within their classrooms. Despite any casual remarks beforehand about not being sure if they used imagination or not, the interviews provided an opportunity to explore this further. During my interview with Ashley Hastings in response to her intentions of using imagination, she said, "During Literacy, I may use it or not? During read alouds maybe when I ask the students about what they think would happen. I think also when I ask the students, 'what is this word' and they say 'bam'." Ashley Hastings shared that she had not thought about using imagination until our conversation and that she was answering this question from the place of how she might be intending to use imagination. KB's response was brief in saying, "I let them think about it and that is when I use and see imagination." She admitted she was not sure I would "see what I want to see" and that before this conversation, she had not *intended* to use imagination or *not* use it. She "just had not thought about it." TK shared her intentions in using imagination: "In EIC, when I ask the students 'what do you want to learn?' and when we are

experimenting with math, I want the students to develop their own conclusions. 'Must' takes away from imagination and so I try to offer options instead. Also, being play-based." TK newly intended to explore the idea of imagination and use or place for it in her classroom during this research and to me that was exciting.

I sought to answer the question, "What are the intentions of teachers who use (or prioritize) imagination within the ECE classroom," and these teachers were, as I first began exploring with them, *not* prioritizing imagination nor even ensuring it had a place in their student's learning experience. They had not even considered *imagination* until I approached them and asked, "Do you use imagination in your classroom." With thoughtful pauses from all, they found ways in which they actually *do* use imagination. When they thought more about imagination and how it is involved in teaching and learning, they had more specific *intentions* for using imagination. This was discussed more in our follow-up interviews when Mrs. B shared her use of imagination to engage the students, like during read-alouds, and to encourage students to "want to be here." She also gave them "time to think, maybe after one question. And to try to encourage them to keep going." Ashley Hastings used imagination with the intention of providing "social opportunities for the students." TK shared that she intended to get students to "develop their own conclusions" during explorations and to form "connections" among content knowledge. They all agreed, after looking more closely at their teaching, that they did use imagination intentionally to teach reading to their kindergarteners, which was a priority at this grade level, even if not at first.

The second part of my research question about intentions was as to how these intentions were actually operationalized in the classroom. This operational aspect drew in the curricular and pedagogical dimensions of the data and where I saw connections and recurring messages or

themes. While focusing on the intentions of the teachers, I observed overall classroom occurrences, teacher behavior, and student learning and behavior. This is where I witnessed whether their intentions were operationalized or not throughout what and how they taught.

Curriculum

The curricular dimension of my exploration looked more specifically at the content and activities the teachers had planned and in which the students were engaged. I looked at how the curriculum was being interpreted and understood by the teacher, taught, and then understood by the students (Eisner, 2017). I also inquired as to whether the students were engaged and as to *what* they are learning, exploring, or practicing due to this curricular aspect of the classroom system. Parsing out the curriculum, I describe the use of imagination observed and related this to the intended.

Morning Meeting

The teachers, throughout the school, used responsive classroom (RC) as an approach to teaching social emotional learning. Every morning consisted of a Morning Meetin based on the RC curriculum. This most frequently occurred in individual classrooms and the students and teachers gathered on the carpet in a circle (or oval) and began their day together in a systematic way. On Wednesdays, the school hosted All School Morning Meeting and invited families and community members to join the entire teacher and student body in the gym. Whether occurring in individual classrooms or all together in the gym, they followed the RC system that entailed four pieces: a greeting, a share, an activity, and a morning message. The greeting varied and could be a high five or “hello” in a specific language or way. The teacher or facilitator of the meeting most often planned the greeting and led or instructed it in a predetermined way. I did notice that in TK’s morning meetings, she asked a student to spin a wheel, posted on the board,

to determine the language they would greet one another on that particular day. The intention was to welcome everyone and help them to feel a sense of belonging in the community. One day during TK's greeting:

> Good morning (insert student names)" was said around the circle, they looked at each other while they said good morning to one another. If it was not audible, TK asked the student to say it again. "Remember, when we do our greetings, we are showing them that they are important to us. So, we look at them, we use their names, and we say good morning in our bug girl and big boy voices.

After the greeting was the shared aspect of the meeting in which each student and teacher shared some information about themselves in a directed-way such as "would you rather" (KB) or "what is your favorite smell" (AH). This piece had the potential space for imagination and was utilized differently among the classrooms. In Mrs. B's Classroom one morning, she said:

> For our share today, would you rather be really, really, really, small, tiny so you could get into tiny places or really, really, really big and you can get places by taking big steps? We will go around the circle and share." "I want to be big like a dragon" (student). "I want to be really small so I can be like a mouse" (student). "Big, because if you were smaller, people would step on you" (student). "Super small to go under the wall" (student). "Super, super (and more) tiny because I want to climb" (student). "I want to be so big so that I can see the whole entire town" (KB) and the students reacted with an "ooooooooooooo!" "Let's start the week out being sharks! For our activity we will sing, so get your sharks out!"

Mrs. B asked them to stand up and move around the room as sharks, while singing along to the song, "Baby Shark." Smiles were on every child's face as they 'swam' around the classroom.

The next piece of morning meeting; which Mrs. B led them right into, was the activity. For this aspect, they did a brief activity together such as “being sharks” (KB), as mentioned in the vignette above, or a teacher led chant such as in TK’s classroom one morning:

> “Now, we’re walking, walking, walking. . . now we’re still” and everyone froze in their spots around the room. “Now we’re marching, marching, marching . . . now we’re still” and they paused their bodies and most continued smiling. ”Now we slither, slither, slither. . . now we’re still” and most students froze in place again, striking interesting poses. One student did not pause but bumped into another student. They were asked to “please go over and take a three second breath and then rejoin us” (TK) to which they walked over to the take-a-break chair, took their breath, and rejoined ready to go. The teacher, TK, and children move along to the chant again, “we are dinosaurs, dinosaurs, dinosaurs. . .” and they stomped around roaring until “. . . now we’re still”. Everyone struck a pose once again before TK said, “Now we’re walking, walking, walking to our spots. Safely sitting, looking at the board.”

This aspect of the morning meeting also had the potential for imagination, like the share, and varied in offerings. The students were exceptionally engaged during movement-based activities such as the “crocodile chant” (TK) that was led by the teacher who encouraged the students to “swim, slither, wiggle, walk, tiptoe, and sleep.” The morning meetings ended with the morning message written by the teacher, which was read aloud by the teacher, entailing information about their day together. Students were very engaged during morning meetings in all three classrooms, which presented a time to greet one another, get to know one another more by sharing a bit of their thoughts or aspects of oneself, move or engage in an activity together and prepare for the day.

Literacy

Literacy, which has been a priority for the last three years, consisted of multiple pieces, spread out throughout the day: Letterland, Heggerty, small reading groups, whole reading groups (sometimes), and writing. I explain each piece in more depth, yet introduce them all first. Letterland is a set curriculum introducing letters and letter blends as characters; and effective in kindergarten due to the songs and stories. Heggerty is a phonics curriculum which *every* school in the area presently uses and is intended to take five-ten minutes of each day, but claims to show large growth in phonemic awareness. Small reading groups are leveled groups meeting with the teachers to provide focused and guided instruction on specific literacy needs of the group. Whole reading group did not seem to happen as frequently, which entailed read-alouds. Their writing time was focused around the sight words and completing an "all about me book" using illustrations and words (often using invented spelling). Not necessarily part of an official curriculum, yet intriguing, was the students' jot journals, providing space to write or draw freely; they were invited to add to their jot journals during any "down" moment. Integrated together, these pieces filled a large part of these Kindergarten days.

Every literacy lesson began with a video on the screen singing loudly, the Better Alphabet song with Jack Hartman (https://www.youtube.com/watch?v=q3M_rdef7sw). This was followed by the teacher, in different ways, encouraging the students to "ride the train" (Mrs. B) or "let's get on the train to go to letter land, choo, choo!" (TK) into Letterland.

> "We need to get on our train to Letterland" Mrs B said and encouraged those who wanted to stand up in their spots to do so. A little more than half of the students stood up, "stepped onto the train". "Get on the train," one student said to another. Mrs B stood too and pretended to get onto the train, "wave to your friends" she said as she played the

> Letterland theme song on the screen. Some students waved, others moved their arms like the wheels of a train. Mrs B asked them to sit back down in their carpet spots once the song was over and said, “we are going to meet a new character today. Who wants to take a guess who it is?” “Kicking king” (student). “Walking walrus” (student). “What does he like to do?” (KB) “Kick!” (student). “There is a Golden girl!” one student called when Mrs B switched the screen in Preparation for the next song to play. “Do you know that fix-it max is just like me, max?” (student). “Yes, Max”. What do you think Kicking king likes to play?” (KB) “Soccer!” many students said and the song played to introduce Kicking King. The teacher and many students bopped along with the music (access videos in Reference section).

Letterland was a large part of these teachers’ and their students' days. It is a literacy curriculum featuring an entire imagined “land” of characters (i.e., the letters of the alphabet). Then, the “letter of the day” would be provided or reviewed, with yet another video featuring a song or short story about the letter character (see references for video)

The Letterland “secret stories” and characters appear to be helpful in the students learning the letters and blends because they would often refer to the stories or songs while writing and in other subjects when they heard something that related to the secret story they knew or if they heard a word with the letter of the day within. The amount of student engagement and imagination depended on how the teacher “entered” and “explored” Letterland. TK said, “we are getting on the train to Letterland, so those of you who want to stand up to ride the train you may, just be safe in your space” and would stand close by watching the screen alongside the students. Then she would sit directly alongside the screen and point to letters as they related to the songs. The students always appear engaged, interested, and fully engrossed in

the imaginative scenario that Letterland provides in this classroom. Their eyes were appropriately focused on the teacher, video, or letter card. They were repeating sounds or reading words or letters as asked, directed, or expected. No students were sent to “take a break” in this classroom during this time. In one of the other two classrooms, the teacher sometimes stood close to the screen, other times taking care of something else while the songs played. There was often a child being told to “take a break” during this time, and only most of the students were engaged in the “experience” of Letterland. This will be addressed further when looking more closely at Pedagogy, yet it is important to note the different experiences briefly within the same curriculum here.

After all the many Letterland songs, the teachers would review or teach new information about the letters of the day or week. “What is the secret story of the letters I see?” Mrs. B asked about the word ‘mine’ and a student answered, “Mommy e tells the other letter to say its name”. Another time, Mrs. B explained “Now ‘is’s’ secret story is that is is used so much and in so many words it sometimes falls asleep, and that is why it sounds like a ‘z’”. These “secret stories” served as an anchor for students during literacy and beyond, referring to them throughout the day (even during recess). The teachers spoke about the “Superhero letters” and reminded the students that “it’s a superhero ‘a’ because it can say its name” (Mrs. B).

During this whole-group session on Letterland, the teachers would review the sight words by asking, “how many sounds do you hear in ‘can’?” and “let’s get our roller coaster arms ready” and “remember, our arm is going down our other arm like a roller coaster”. They also directed the children to use “skywriters” to practice writing letters or words in the air. This required them to imagine writing the letter or words in the air by moving their writing hand in the same way they would on paper.

Letterland characters were not just part of Letterland, but also discussed during small reading groups, writing time, and periodically throughout the day. There were posters of the Letterland characters in every room and referenced frequently by both students and teachers. This curriculum provided the opportunity to imagine, yet how it was utilized by different teachers seemed to matter as well.

> Five students went to the desks to work on their chrome books, six students came to the kidney table to work with TK. Four students went to another area of the room to work with another teacher who was there to support literacy centers. At the kidney table, the teacher was teaching the word, "slip". "Isn't it kind of hard to hear the 'lll' part? They nodded, and she showed them a picture of a blender and asked, "do you know what this does?" They nodded again. "It's a blender. What do you do before you turn it on?" "Put food in it" (student). "What else do you do?" (TK) "Put a lid on it!" (student) "Why?" (TK) "So that it doesn't make your house smell and messy" (student). "Right, to keep it from making a mess" TK said and followed it with, "Well, someone didn't put the lid on this blender and see what happened? The drops came flying out all over the place" and she showed them a paper with drops all over it and letter blends in the drops. "These are smashed up supersonic blends. On your paper (which she had distributed) find the 'sl' supersonic blend and circle it. See, 'sl' supersonic blend, 'i' (short i sound), and 'p' (sound). 'slipppp'" .

Small reading groups often afforded the space and time to ask more questions, particularly by TK, looking to students to think, imagine perhaps, and make connections. "Nurturing imagination and innovation requires an environment that is supportive and rewarding of ideas" and a student could "have all of the internal resources needed imagine, but absent an

environment where creative risk-taking is nurtured and rewarded, the creativity that a person has within him or her might never manifest itself (Bloom & VanSlyke-Briggs, 2019, p. 92).

> Mrs. B asked the students during one small group, “Where does this book take place? “In the woods” (student) “Have you ever been in the woods? What happens in the woods? What is in the woods? (KB) “Trees” (student). “Squirrels” (student). “Foxes” (student) and they went on to read a story about the woods together.

These groups provided more time to explore the Letterland characters and review. In another small reading group TK called a small group back to her kidney table.

> At the table, while students approached their stools, a student said, “I am going to take my spin” “Can I take my one spin?” (student) “Yes, take your one spin” (TK). Each student spun their stools around one time and turned forward again. “It’s like a whirlpool!” (student) “Do you like whirlpools?” (TK) “No, because they trap you inside” (student). Books were distributed and they read them independently, but out loud. After Three minutes the students were asked, “what happened in this book last time you read it? I want you to read it again and focus on reading it like the character would say it. If the mouse is talking, you might read it like this (and she modeled) in a small, squeaky voice. Okay?” and the squeaks erupted.

A few times, during small group work, the students were asked to “fill in a letter” in order to complete a word. The teacher said a word out loud like “can" and on the white board was written “c_n”. The students were expected to hear the missing sound and apply it to a letter, which they had been taught prior, and therefore ‘complete the word’. There is a lot of mental processing required for these emergent readers and writers in order to identify a sound, attach it to a letter and then write a word. The letter was not visibly presented, but the sound was

provided. It might be the case that the students are actually required to imagine the sound-letter connection and fill in the blank to create the word. This appeared challenging for some students, simple for others, and yet others did not even try but waited for a peer to say the answer and then repeat them.

When whole group literacy instruction occurred, the students would gather on the carpet for activities such as read-alouds or activities. KB said, “Let me plant these letters” as she placed cards with uppercase and lowercase letters on them throughout the carpet area. Then she asked the students to pick a letter (card) and find the match (uppercase with lowercase letters) with someone else. The few times that there was a book read aloud, there were imaginative moments due to the book’s topic and the teacher asked questions that encouraged imagination. Unfortunately, I did not see many whole group read-alouds, which is integral to the development and learning required of this age group. There were more videos of books read aloud during my observations than the present teachers reading books to their students. The videos show the picture the entire time the page is being read aloud and allow for no pauses for engagement, questions, or check-ins with the real students. I felt it was a real missed opportunity when videos were played. The interactiveness of read alouds is not possible while watching a video and it is the pauses which teachers take to “confirm students' contributions, explicitly model ways of thinking and comprehending, and provide opportunities for readers to build meaning together” that make read alouds so powerful and educative (Wiseman, 2011).

Heggerty

Heggerty is an interesting one for me. At first thought, when entering the classrooms for observations, I had already placed Heggerty on my mental “non-imagination” list, having had previous experience with it during student teaching observations. I reconsidered, and I will

explain why. Heggerty is a curriculum based on phonemic awareness and entails the teacher saying a word or parts of a word and then the students stating (often in chorus) the new word or parts of a word; which often leaves a very monotonous and mechanical five minutes. Very frequently in the past I have noticed students waiting for others to say the sounds and words expected and then they repeat their peers; they are not actually tinkering with the words or sounds themselves (or unable to without additional support, which is rarely given during this time). In past teacher (not research) observations, I was focused on the effectiveness of the curriculum and on the teacher in following the curriculum. During this observation, I was focused on the potential for imagination; and here is the deal, it might have the possibility of including imagination! There is an affordance, or *possible* space, for imagination, with a teacher who is inclined to involve imagination; however, it is not necessarily an imaginative curriculum. Even this activity that is not traditionally thought of as *imaginative*, teachers have the capability to introduce elements of imagination, if the intention to do so is present. Throughout the instruction of Heggerty, no words are physically visible to the students, only sounds heard and the students are expected to either connect the sounds, separate the sounds, or replace the sound and make a new word. The new words or separate sounds are not actually present to their senses, so some of the required processes could be seen as requiring imagination. The students need to potentially imagine the new word or separate sounds as they visualize them in their mind only A specific example of one of my teacher participants affording the opportunity to imagine, was when Mrs. B said, “ready to change words? Get out your magic wands” when they were changing “pill in pillow to wind” and she instructed them to wave their ‘wands’ to make “window.” If the intention of including student imagination and ensuring student engagement is present, even Heggerty could be imaginative.

Mathematics

All three teachers utilize the same Mathematics curriculum, Bridges, and therefore their flow during this allotted time on the schedule appeared very consistently among the three classrooms. They reviewed the calendar, featuring patterns to figure out, and shapes to explore, then counting the dates, the days of school, and sorting them into groups of tens and ones at the beginning of every Math Corner. They engaged in a shape "treasure hunt" (Mrs. B) and were instructed to look for squares in the room, which students were excited about. They also each played a game to "imagine where Hop the grasshopper is," behind the numbers on the number line. "Hop is hiding today. He's a really good hider and he doesn't want to be found. Do you think we can find him today?" (Mrs. B). "Hop is really hiding! Did he go to Dorney Park and is leaving us guessing?" said Mrs. B one day which received laughter as a response from the children and was then followed up with support from both the teacher and students saying, "you can do it, you can find Hop!!"

I observed two of the classes read a book about butterflies flying away during math and they utilized cubes to represent the butterflies. Each student received ten butterflies/cubes and as the teacher read the book, she instructed the students to make one of their butterflies/cubes fly away and then to count the remaining number of butterflies on the 'leaf'. To clean up, the teacher said, "okay, turn your butterflies into a train and work your way up here to put your train into the basket". These directions were followed and students "chugged" their way up.

Another consistent activity during math was counting and grouping into 'tens'. One day TK said, "alright, I am switching the color purposefully today. I am not going to tell you why, but we will figure it out together as we go" and there was space left, unanswered, for mental wheels to turn. TK also had the students "counting like lizards," by sticking out their tongues

after every number from 1-10, 21-30, and 41-50 and then unicorns with their hand on their head for their horns and their voices changed to a softer sound as they counted from 11-20, 31-40, and 51. TK prepared the students that they would "count like owls and babies next time" upon the students' requests.

Investigations (Science and Social Studies)

The EIC or Investigations (i.e. science) curriculum is teacher-created, and years ago. Mrs. B was one of the original designers of this curriculum. Although some activities have been added, shifted, or removed, the units have mostly remained the same for the past fourteen years. The unit occurring during my observations was the Tree and Me unit in which they explore the systems of their own bodies and that of trees.

> One day TK announced, "Our days are getting shorter, right? What happens when we do not have as much sunlight anymore? What happens to the leaves on the trees? What is happening right now on the trees outside? Everyone stand up and be a tree. There is less sun, so your leaves cannot stay. What happened to your leaves?" TK asked and then encouraged the students to let their leaves fall off. Then she asked, "why doesn't your tree have any more leaves?" and a student shared with a raised hand, "because it doesn't need them anymore" (student).

Another day, the students were asked to be "treetectives" in order to check on the health of the trees outside. They were first taught some of the signs of an unhealthy tree, such as bark peeling off and discoloration. Once outside, and looking around at trees the students were finding all sorts of "health issues" (although many were imagined). One student pointed out, "there is a hole in that tree" and all the students gathered around and discussed the issue with this hole. One student's response was, "Yep, there is a bug in there" and most students agreed with this

statement and wanted to look more closely. They were curious about the health of these trees, which caused them to actually look at the trees. This curiosity also caused them to imagine and perceive possible health issues due to the space that was left for them to explore on their own and with peers.

The chosen and enacted curriculum and the time allocated for each piece exposes the priorities of the school decision-makers and teachers. “The curriculum serves both as a means for developing modes of thoughts *and* a symbolic structure that defines a hierarchy of values” for the students (Eisner, 2017, p. 76). The amount of time dedicated to literacy is indicative of content that takes precedence in these classrooms and the scheduled time for freeplay never changes because this is perceived as a valuable time as well. With the curriculum pieces set, it is up to the teacher as to how they interpret, apply and shape the learning experiences, through their pedagogy. “It’s more than just the what, it is the *how”* (Shank, 2015, p.165).

Pedagogy

The Pedagogical Dimension looks at *how* the teachers teach the material and *how* learning was occurring. It also looks at what was being modeled, rewarded, or reinforced by the teacher. We can consider pedagogy as the personal “signature that individual teachers give to their work” and I sought to notice the “productive diversity rather than standard uniformity” among the teacher’s pedagogies, which I intend to share here (Eisner, 2017, p. 79). In this research, where all three teachers were teaching the same curriculum and the same times, it was more than just the “what” they were teaching, but rather “a how” they were teaching that mattered (Shank, 2015). I ended up seeing the “recurring messages” and introducing the emergent themes when writing about pedagogy because this is where I found it to be most applicable (Eisner, 2017). It *is* in the “how” they teach that I found imaginative opportunities;

and in the affordances of providing space and asking questions. The larger themes of space, questions, and proximity and modeling, and smaller themes of humor and relationships will be explained throughout this section.

Space

Although there was very little unstructured time in the school day that was not filled with the mandated content which needed to be taught, there were moments when these teachers provided space, or in other words: unstructured time, pedagogical pauses, and moments for student's personal mental space. This space was provided most heavily and intentionally during recess and freeplay and was found periodically throughout curricular activities due to the pedagogical practices of the individual teachers (Shank, 2015). Recess, in the morning, was a daily non-negotiable, and freeplay in the afternoon was never missed. These two periods of the day prioritized the space for play and freedom and were integral to the building and maintaining of class community, as well as to necessary learning that is not always considered "academic" in elementary school. These times were the most imaginative, by far, due to the space provided. The teachers stood back and allowed the students to choose their activities, actions, and collaborators. The teachers provided the time in the schedules to ensure these activities occurred and it was this unstructured time and student choice or space, which fostered imaginative work and play. It was also the ways in which they prepared the learning environments that provided physical space to move and be and mental space to choose and explore which afforded imaginative moments.

Another way space was provided aside from freeplay and recess was in the pedagogical pauses of the teachers. This is not an area in curriculum, rather a teacher choice and action. There were moments after questions which teachers asked, between activities or content, or moments

that were just not filled with teacher-talk; there was space provided for students to have their own ideas and questions. For example, TK was approached by a student during a transition who asked, “Why did e, if e is behind y, he’s not going to know he took the cape” and TK, who maybe was unsure of what he was asking (like I was), responded with, “I don’t remember the story, but if that is the story you see in your head, you can stick with that” (TK). This was an example of personal mental space; and rather than correcting or discounting this child’s story, TK supported them to trust themselves and their own mind.

Personal mental space was provided when teachers shared information and paused for a few moments of wonder. When discussing what people *need* to survive, the idea of needing a car surfaced. TK said, “we have only lived on this earth for 100 years with cars” and with absolute surprise, the students said, “what?!” and were left wondering for a few moments. That space was important.

Questions

Another way to support children in trusting themselves and their own mind is to ask questions; when questions are asked, students are more engaged and focused (Walsh & Hodge, 2018). They want to answer the question and the space provided, for thinking and sharing, after questions are asked, where I see imagination and moments of total student engagement.

> “What do you notice up here everyone?” KB asked as she pointed to the calendar.
>
> “It’s blank” (students). “Yes, because today is the first day of November! Let’s find out what the picture is on the back here. (She flipped the card.) What is this?” (KB)
>
> “A square!” (student) “What makes this square?” (KB) “It has two long sides and two short sides” (student). “What I hear you telling me is this (and she drew a rectangle on the board). Is this a square?” (KB). “No” (Students). “So what is a square?” (KB)

"Four sides" (students). "That are all the same" (student) and this was repeated in chorus. "Okay, our calendar markers are going to be shapes this month. Today, you said we have a square. Where in the real world do you see a shape like this? We are going to pass this square around and you are going to say, 'my square is a (and fill in the blank)'. Okay? I will go first. My square is a cracker." "My square is a secret number card" (student). "My square is a desk" (student). "My square is a pizza" (student). "My square is a calendar marker" (student). "My square is the doggy poster" (student). "My square is a chicken eater" (student). "What does that look like" (KB)? "Like a chicken eater, like where you get chicken" (student). "Okay" (KB). "My square is the window" (student). "A tv" (student). "The cubbies!" (student).

The questions Mrs. B asked when introducing a square engaged the students, causing them to all look at the calendar and make guesses. They had to recall or imagine a square in their mind and explain what they see or know. In a follow-up math lesson TK used similar questioning.

The "new" students entered the classroom and the teacher put them into carpet spots. TK knew each of their names as she assigned them spots and one child said, "How do you know our names?" "I have been practicing and working on that the last few days" (TK). Once everyone was seated, TK went through the calendar and review of numbers as they did every day during Math corner. "What do you think this is?" and TK held up a card (with a cube on it). "Cheese" (student). "Not cheese" (TK). "A box" (student). "Yes, and this box is a special shape" and she went into an explanation between two dimensional and 3-dimensional shapes and that this box was a three-dimensional cube. "What shape would this be (and she held up a square) alone?" (TK).

> "A square" (student). "But when we put six of these squares together, what do we make?" (TK). "A cube!" a number of students called aloud. They counted the six squares on the cube together.

It required imagination and higher level thinking to mentally compare a square with a cube and the teacher-led inquiries engaged the students in this thinking.

In addition to teachers asking questions, the space and opportunity for students to ask questions is also important. Unfortunately, it is found that opportunities for students to "self-initiate questions are often hindered by directive behavior" (Verschuur et al., 2017, Abstract). During freeplay I noticed opportunities for students to ask one another questions.

> One child walked over to the group of students playing with the animal figurines. They picked up the "harpy eagle and the crocodile". "What's your name?" (student direct toward the animals) "Lario" (student). "That's not even a name. Maybe it's Joey?" (student). "Okay my name is Sam" (student). "Who's that bro?" (student) and they continued "naming" all the animals while simultaneously, in the library area of the classroom, there was a different scene. "Who wants to write and learn?" (student). "Can I play?" (student). "We're not playing. We're writing and learning" (student). "I want to write and learn when I am done here (finishing up work). So, don't start without me" (student). "Who wants to trace these letters with me?" (student).

The teacher had provided the animal figurines, which were often utilized during free play, and laptop work desks in the library, which enabled the playing of 'school' and other jobs where "writing and learning" were required. The teacher did not choose to engage in these activities with the children, but allowed and encouraged them to be independent, autonomous beings.

Proximity and Modeling

When the teachers were engaged, the students were engaged. When the teacher modeled an activity or in other words, participated in the activity, the students did so as well. When the teacher played a video and walked off to do something else, many students disengaged with the activity (provided by the video) and were soon asked to "take a break" because they were not doing what was expected of them. When the teachers remained close to the group and participated along with the video or activity, the students did so as well and fewer "behavior challenges" occurred. When the teacher thought aloud about something they were thinking about or imagined, the students followed and frequently shared more imaginative thoughts themselves. While teaching the whole group about the letter 'p', TK said, while standing up front and writing on the whiteboard, "picture peter puppy's ears, his long droopy ear. We have to remember this because there are four letters that have straight lines and bumps" (and she wrote the letter a few times to show while she was talking) "so you have to picture in your mind his face and his long droopy ear." The students were very focused on making their "Peter puppies" as well after the modeling.

Relationships

TK was very present during any student interaction with her and she seemed to prioritize relationship-building. During morning meetings, she emphasized the importance of "looking at the person you are saying hello to" (TK). During a small reading group, she was brought to share, "I actually dye my hair," which received laughs from the students in the group. She followed this laughter with, "do you want to know what color it really is?" and of course they did, "white" (TK) and more laughs erupted from the students. The students were intrigued during this interaction and the small group activities appeared to flow more smoothly after this moment.

Throughout my observations, TK responded to students in ways which allowed them to feel safe, valued, and heard. Due to the relationships she was consistently building within her classroom, her presence during freeplay seemed to escalate the imagination and interactions among students and herself. Her classroom featured the most vibrant and collaborative freeplay among the three. The students particularly got engrossed in the kitchen area where they made her all sorts of "delicious" goodies which they served her at the kidney table, where she sat, repeatedly. Her presence and support influenced the students behavior - as teacher behavior does. They felt safe to imagine and share their imaginings with her and one another due to the relationships they had built and were building.

Humor

Jokes were used quite frequently with Mrs. B. In fact, one of the first notes I marked on my paper during our initial interview was her claimed use of intentional joking, in order to "make them [the students] want to be here".

> Mrs. B led them through some simple stretching, on the carpet area, like standing up, reaching up, touching their toes, reaching up, then slowly sitting back down.
>
> "Hop (the grasshopper) is hiding today. He's a really good hider and he doesn't want to be found. Do you think we can find him today?" (and a new chart was over over with 20 pockets). Each child was given an opportunity to make a guess. When they made a guess, they pointed to a pocket, then they counted as a group to that pocket starting at different point directed by the teacher. Then they moved the color card from the front to see if Hop was hiding there. Sometimes the teacher asked questions like, "how do you make a 17" and the students answered. Most students were interested and engaged in this 'game' and those who were paying attention seemed to know their numbers as well.

"What's behind the red card?" (KB) "Ten" (S) "What comes right after one?" (KB) "two" (S) "Hop is really hiding! Did he go to Dorney Park and is leaving us guessing?" (KB) "Haha!" (S) "You can do it (student name), you can find hop!" (KB)

Four spots were left and students were guessing. "Do you want to go with ones or teens?" "What number comes after 12?" (KB) "13" (S). A student guessed the 13 and found Hop and was very excited. They gave the teacher a hug (in fact, many of them gave her a hug when they came up to make their guess The teacher invited the students to take a water break and walk around a little because they had been sitting for a while.

Mrs. B provided humor throughout this simple guessing game and maintained student engagement throughout. The other two teachers used humor as well when looking for Hop the hiding grasshopper and also when changing their voices during counting as unicorns and crocodiles. These were also moments when the students were engaged and actively learning and undesirable behaviors were few.

The pedagogical choices each teacher made in order to relay the content to the students was dependent upon their personalities and priorities. The themes which emerged, in differing amounts in each of the classrooms, of space, questions, proximity and modeling, humor, and relationships also varied depending on the observed classroom and activities occurring. I apply the elements of intentions, curriculum, and pedagogy now, as I look to further describe and interpret the ways in which the three types of imagination, play, social, and academic, are integrated and woven together with the elements.

Imaginative Play

Imaginative play is the more familiar and discussed aspect of imagination and is defined as the active engagement in activities where one's imagination is expressed or utilized during

play whether independently or with others. I have already discussed ways in which I have witnessed this within the three classroom environments during free play and recess. There have also been opportunities during whole group instruction when imaginative play is utilized to learn, practice, and apply a concept. Due to the emotional competency that imaginative play helps children to develop, we are better able to "function in the natural and social world" (Shuffelton, 2012). During free play and recess, the children were practicing imagined or real challenges or "hurdles" and worked their way through them (Shuffelton, 2012). This practice makes the real life intrapersonal and interpersonal conflicts seem less difficult. Taylor (2013) suggests "that the simulation of imagined social scenarios involving self and/or others contributes to the development of real-world social understanding". It is the space, freedom, and environment provided which allows for this imaginative play and potential learning to occur.

Recess

Recess provided physical, mental and emotional space for imaginative play to occur. Students utilized "props" out on the playground to imagine wings (hula hoops), fast legs "like sonic" (hula hoops), and "Panther paws" (rounded cones). They played imaginative games; for example when one child asked a group of others, "want to play Oscar orange?" (reference to Letterland) to which they agreed and they began running around saying "orange". Another student was running around, jumping over logs and saying, "nothing can destroy me!!" with some imagined scenario within their own mind.

> Students lined up, with coats, hats and gloves on and we walked outside to the playground. A red tailed hawk was pointed out in the tree overhead. The children went To the slide, the spiderweb climber and the blacktop to play. The running involved monsters and running away from one another. Leaves were being scooped up and tossed.

> The tires were climbed across (with a caution from the teacher about being careful because they were wet). A group of children called to another group saying, "hey Freddy, come and get us" and then ran when they were being approached. A student got knocked down, but two friends approached, helped him up and asked, "are you okay?" he limped for a few moments but off they ran and "battled" again. The yellow leaves were falling. The rock wall became a hang out with a group of kids, sitting at the top, swinging their legs freely, waiting to be chased. From the blacktop there was a lot of active yelling. A child was aggressively shaking the little branch of a small tree. Tag was played. A child was doing cartwheels, leaps across the borders of play areas and jumping down from the rockwall. "He just abandoned us!" (S) "He swam" (S)

Every recess presented such a wide range of activities occurring all at the same time. It made me think as to how recess is the school-based activity that is most like the "real world," with everyone behaving differently from one another, using resources in varying ways, interacting with others, and engaging in differing activities. The children might notice this even more than adults do, as they imagine themselves in various roles and move fluidly in and out of these roles they are "trying on".

Freeplay

"The idea of imagination implies some sort of freedom" (Takaya, 2004, p. 28). Freeplay provided freedom within the classroom for the students to explore, interact, and imagine various scenarios and events. Sometimes, the Letterland characters made it into this play time as well, such as "Walter walrus" who was hanging out with the giraffe until, "these lions are eating this giraffe" was announced during a twenty minute animal-character showdown. This showdown included much negotiation in the ways of names for each character *and* as to which animal

defeated the others in both Mrs. B's and Ashley Hasting's rooms. Cars were a hot commodity in Ashley Hasting's class with a group of students who daily "raced" around the room and continued throughout freeplay with enthusiasm and collaboration (and sometimes being reminded to stay on the carpet and not throughout the entire room). LEGO was an item full of imagination in Mrs. B's room during one freeplay when one student asked another, "want to make a meatball?" and they did! In TK's room, the Magnatiles were made into a telescope, with students saying, "I can see you!" to one another (and to me) and a pair of binoculars were used both ways to see far and close but also as a "portal to another world".

The kitchen was like another world in TK's classroom and came alive during freeplay! I ended up sitting directly next to the "kitchen" during my observations and therefore I was a prime "customer" and expected to order all kinds of things off the "menu". TK was another willing "customer" and shared in the delicious "meals" created by the students. The kitchen area was rather simple, with one stove, sink, and cabinet featuring a few bins of food; yet it was a popular place to imagine!

Maybe they were chefs or maybe cooking for their family when playing in the kitchen, however, I did not inquire. There was the practice of various other "jobs" during free play though. One day a group of students were playing "school" in the classroom library and a few of them were the "teacher" providing work for the others and distributing "acknowledgements" for good behavior. Another day, in the same classroom and with similar students, there was a "Cheer and Dance competition" occurring and one of the students was the judge of the competition. (It was a tough one to watch.) The animal-character group in Ashley Hasting's class claimed to be "zookeepers" on one particular day when they lined all the animals up for a checkup.

Periodically, students utilized their Jot-journals during freeplay. The students playing "school" used them for their "work" and another group used it to play "copycat" where one followed the drawing of the other. One group was drawing superheroes during freeplay one day, maybe influenced by Letterland Superheroes that were discussed earlier in the day, and commenting on one another's work by saying things like, "I see a super power". These Jot-journals were kept in all three of the classrooms and were used differently and periodically. The students were sometimes encouraged to "work in your Jot-journals" and other times they just got them out and began drawing or writing in them independently. This was common during transitions or if students were complete with work but others were not.

It was the use of open ended toys, blocks, loose items to build or create with, that provided space for imagination. The Jot-journals were blank pages open for imaginative writings or drawings. The double H blocks in the Library were open for imaginative structures to be built. The wooden blocks in all rooms were available for large, stable or unstable structures to be imagined and built. This also seemed to be where the students were drawn to when given choices and where students were most collaborative and communicative.

Social Imagination

We often use our social imagination when we are collaborating and communicating with one another. As one empathizes, assumes, or shifts their behavior in a direction they imagine to be best for the situation or moment, this is our social imagination (Gotlieb et al., 2016). This *can* occur during play, however it also is necessary at times when students are expected to be academically focused or collaborating and communicating with others in a non-playful way as well. Opportunities to imagine provide practice in self-control and regulation of self and

emotions and it is an “imagination-oriented mindset” which is important for “connecting the broader, longer-term purpose of our work and experiences” (Gotlieb et al., 2016).

The obvious times the children use this is during recess and freeplay because they are free to speak and collaborate with one another. During freeplay and recess it is not just Imaginative Play, but social imagination utilized as well during negotiations and conflicts. Potentially, they are able to see the multiple options and perspectives or situations that could be possible in their world and work (or play) accordingly, as in divergent thinking, (Thakral et al., 2021). The constant negotiation and navigation - when one child’s imagination does not align with another child’s during play - is a major part of recess and freeplay. I witnessed this occur when the students naming animal-characters did not agree on names; they had to negotiate with one another’s imaginations, and with very little consequences, thankfully. During play, there is also the opportunity for a joint social imagination, which I witnessed, such as when the children raced cars, competed in the dance and cheer competition, and made meatballs out of LEGO. Their ability to imagine together and negotiate their differing imaginings and opinions is beneficial practice for what we as adults do together when we collaborate on potential ideas and projects, but with fewer consequences. These are important learning opportunities which freeplay and recess provide.

There are many other less obvious opportunities as well, such as when asking about the stranger in the room, during read-alouds when they put themselves in the story, when attempting to answer a riddle, or when teachers ask specific questions where the answers are not visible to their senses. Although many of these can cross over to academic imagination as well, I attempt to separate them here for clarity. For example, during lunchtime, the teacher who covered the class would play a game where they would draw a mark on the board and the children were to guess

what the drawing was. The teacher would add to the drawing and the students continued guessing as it was drawn. It was the imagined missing pieces that allowed them to see what was not actually present to their senses. This is not unlike relating to someone else. We are given some information about that person and some facial expressions, yet we have to assume and guess the missing, internal, pieces, and we respond accordingly.

Jokes or riddles are social events, and require social imagination to guess what the answer could be. The answer is not present to our senses and we are required to think imaginatively. Riddles were often told during all school morning meeting check-ins. An example of two that were shared are: “What is a scarecrow’s favorite food?” and “how do you get an astronaut’s baby to stop crying?”. Use your imagination to solve these riddles (and maybe find the answers below after the references). In order to “solve” a riddle, the students need to empathize and use their imagination to perceive possible solutions or answers. In doing so, the students strengthen their ability to imagine, “adapt to, and understand the world around them” better (Shank, 2015, p. 11).

During my observations, there was a large change occurring in the kindergarten as a whole. One of the five teachers was moving to another grade and their students were being divided and placed into the other four classrooms. The three teachers I observed did a great job at preparing for this transition. Social imagination was required for this transition and for the conversation that TK had with the students when she said, “remember, we need all parts of a system to work with one another in order for the system to work” and then explained that the other teacher would be working somewhere else in the system and that they would be getting new students join their class due to this change. She asked, “what can we do to make them feel welcomed?” and the students had ideas such as: “Show them around our room” and “hug them”.

There was a pause to explain that “we need to ask people first before we hug them” before more students chimed in with, “say nice words” and “yeah, don’t say bad words”. These students were being asked to imagine what it would be like to enter a classroom for the first time and empathize with these “new” students. “We should show them how we play” was a final comment before the five “new” students were brought into the room and their imaginings were put into action and freeplay began (a perfect way to develop this new community). TK provided space for these children to have the opportunity to imagine what they may do first, which makes them more likely to solve problems, as they surface, in creative ways and internally work through their emotions and thoughts in a healthier way (McConeghey, 1994; Shuffelton, 2012). Hedegaard (2016) claims that "emotions and feelings are closely connected with the development of imagination, fantasy, and creativity” in children and those who have the opportunity to and choices when given the chance to do so because they have imagined the possible outcomes or practiced during interactions (or in their mind) for an opportunity such as this (Osborn, 2011). They also have an opportunity to practice being flexible, “which can invigorate all mental functions” (Takaya, 2004, p. 55). Imagination requires a way of thinking which allows for more “flexibility and diversity” and often leads to higher level versus surface level thinking and more innovative and creative answers or solutions (Takaya, 2004, p. 28).

When the teachers wanted silence, they asked the students to “put a marshmallow in your mouth”. This type of behavior requires social imagination. Students are imagining putting a marshmallow in their mouth, which causes their cheeks to puff out (because marshmallows are fluffy) and they are then “unable” to talk. It is a clever idea, which utilizes imagination, however it is unfortunately very overused in some learning environments and uses delicious treats and imagination to silence the brilliant minds and voices of the students too often.

Children are often taught to raise their hands to speak and encouraged to always have an answer in school, and it all happens quickly. This can leave little time for thinking and processing the question before shooting up a hand out of obligation or expectation. Space is necessary for thoughtful answers to be produced. Children can imagine negative narratives when they are not called on or if they do not produce the expected answers. This can be a challenge in need of teacher reimagining. A child raised their hand, but forgot what it was they were going to say and the teacher said, "did it slip out of your brain? That's okay, it happens" (Ashley Hastings). On another occasion, when the students showed what she called, "great thinking," TK told them to "kiss your brain" and together they kissed their hands and tapped their heads. Imagination is cognitive, but also emotional. This type of positive narrative TK helped to create in the students' minds, due to their imaginings of "kissing their brain" because they did "great thinking," may originate cognitively, but creates emotional reactions as well; and are more likely to stick with them. Such imaginative stories have the power to teach and inspire future positive action and "great thinking".

Academic Imagination

The academic imagination contributes to "great thinking" and is required when making connections among information, inferences, predictions, or hypotheses, such as these students are often expected to do during reading, science, art, or mathematics. The academic (and social) imagination often serves as "the connective tissue in learning experiences and is vital to the acquiring of new information (Shank, 2015, p.10).

The Letterland curriculum invites imagination and is built around an imaginative land. The students are "traveling" daily to a "distant land" together on a "train," then waving goodbye as they later leave Letterland. Before leaving, they meet letter characters who have preferences

and personalities (and voices) and the students are invited to imagine these characters, which they do so willingly, in order to remember them when reading and writing. And they do! They reference the characters and their personas when they are writing or using their jot journals. They reference the characters during freeplay and recess and bring them to life (even if only in their imaginations)!

During read-alouds and small reading groups, students were asked to make predictions and guesses as to what might happen next in the text. TK asked the small group, "what would you have happen next, if you were the author," which produced thoughtful and imaginative answers such as, "I would make them [the rabbit and fox] mop the floor". This practice of making predictions utilizes and strengthens one's academic imagination. During other small reading groups, they were focusing on finding patterns in words and using "magic wands" to change words with multiple teachers. The patterns were carried over into independent work in their jot journals as one student said to another," look, if you start here, it goes, beginning, middle, end, beginning, middle, end. Try that all the way until you get over there". Adding to this educative moment was this space provided for the students to talk with one another freely and make connections or apply their thinking from the small group to other activities.

In MIT (Library), the students were provided open ended toys/blocks/items and asked to "build a tree". The supplies were teacher chosen and provided, but students selected and imagined. Their trees were spectacular! Although this was a brief time for exploration, the students were active thinkers! They had to recall a tree in their minds and imagine a way to replicate or represent the shapes of a tree using their chosen supplies. The supplies and space provided for this activity allowed for imagination.

When the students were asked to make “guesses” in math, such as “where is Hop hiding” and “what shape might be next on our calendar,” they were being asked to imagine the potential pattern. These answers are not present to their senses and so they must think in order to “guess” what might be or imagine “what if”. Similarly, subitizing, or counting when the numbers or equation is not visible, is also imagination since the numbers are not present to our senses. Our imagination provides this “anticipatory” power and our potential for tinkering around with possibilities (Takaya, 2017). Ashley Hastings imaginatively called it “magic” in math when she “hid” a specific number of cubes under two cups and then secretly transferred some from one cup to another. The students were asked to imagine how many cubes were beneath the cups when the teacher added or subtracted cubes. The students then imagined numbers and with space provided to think and answer, the students were improving their math skills and learning how to add and subtract using “magic” (or their imagination). These kindergarteners were also practicing to discern between imagination and reality during math, such as when they used “butterflies on the leaf” in math, when they are really cubes, which is important as well.

The students were hypothesizing in EIC as they served as treetectives and explored potential signs of healthy or unhealthy trees. Again, this “anticipatory” power of forming a hypothesis, for example in science, we are utilizing what we know, stirring it around with a bunch of “what-ifs” in our mind (or with others), and making an educated guess (Takaya, 2017). This is our imagination.

Missed Opportunities

There were some instances of directed drawings which I observed and there is purpose for directed drawings in the way of learning and practicing following directions, but also to produce a very specific drawing with little personal interpretation. It is often practiced in

kindergarten and first grade with these ideals in mind. TK was teaching a directed drawing of the human body in a small group and instructing students to draw exactly like she was. One student was deviating from the instructions and because this drawing was going to be displayed for parents to see, the teacher took the drawing from them and told them they would do it later with her instead. This was not the space, according to the teacher, to imagine or think independently, but rather to think concretely and follow the directions. In my experience, there is a balance in this that can be difficult for teachers to perceive and achieve. During one of my observations this balance was not achieved and a little freedom or space to imagine could have positively shifted the entire lesson. Instead, there was a directed drawing of an owl instructed for students to do with a black sharpie on a white circle. When students made "mistakes" they were expected to continue. When a student asked for a new paper, they were told "no" which then escalated into an entire class period of "breaks" for specific students and a frustrated teacher. Once the directed drawing was complete, students were provided a second paper and instructed to replicate their directed drawing with the sharpie. This was challenging, but the challenge is okay. It was the students who struggled with "making mistakes" who really were challenged here and left unsupported. This is where maybe space to imagine or even an option to use a pencil could have been utilized as support. This was a missed opportunity and could have been handled in a more imaginative and educative way.

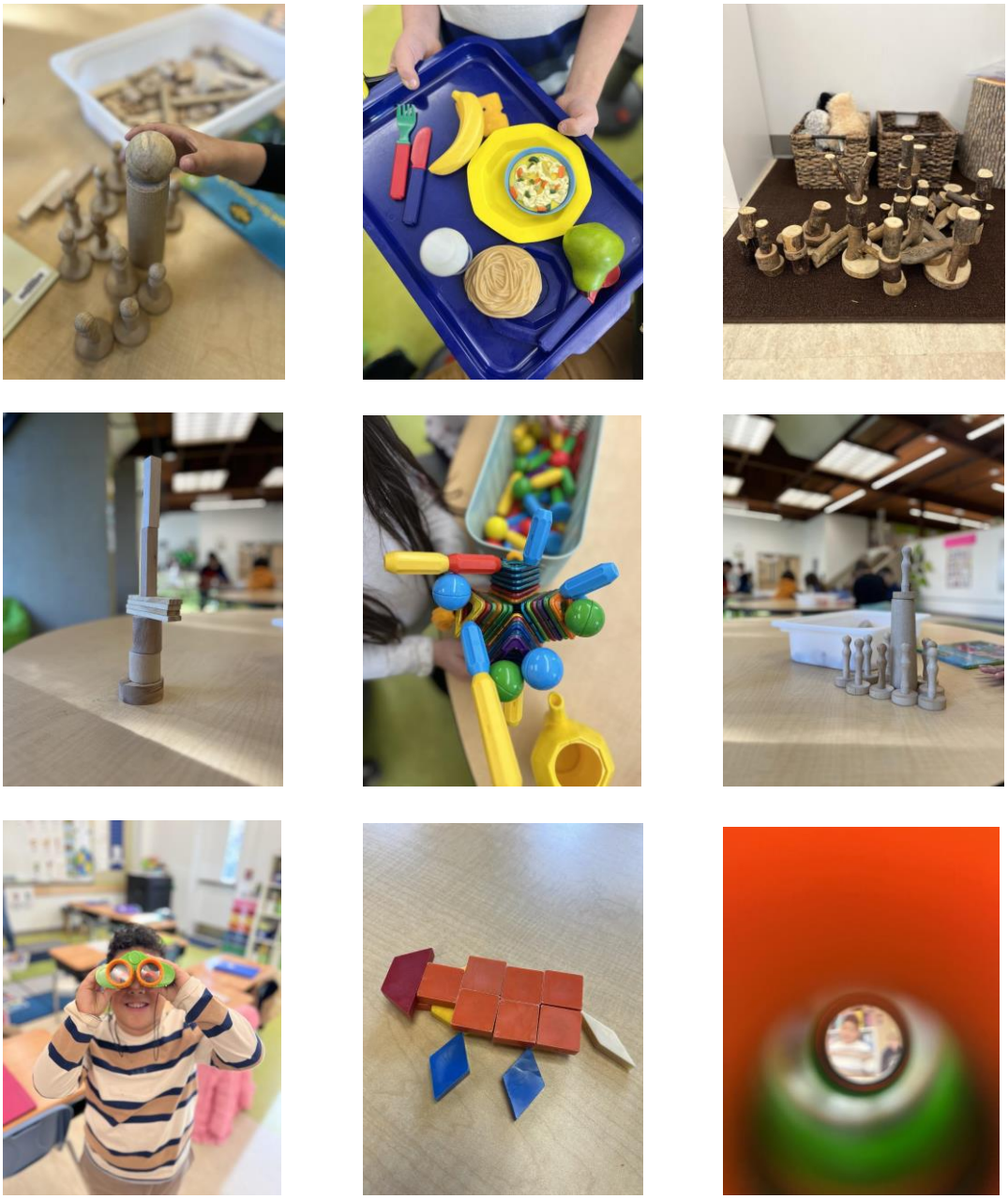
During my observations, there were a lot of videos played during the school day of these kindergartner's. This was another area which I perceived as missed opportunities to imagine, yet this was a way some of the teachers chose to "teach" or approach the material. There were often three videos played during Letterland, yet featuring catchy songs to engage the students and encourage learning of the alphabet and letters. There were videos played as "brain breaks" such

as a “Journey through the woods” where students were “following” a person through the woods as they ran or jumped over obstacles and were instructed to do the same to get to a final, often silly or entertaining, destination. There were videos of read-alouds. There were videos played during snack, sometimes lunch, and when there was a “free” moment in between subjects. Sometimes the students were engaged during these videos, particularly if the teachers were participating along, yet I could not help but wonder if these videos were actually numbing the student's imaginations or mental processing? Biding time? Filling space? There has been some recent exploration into the concept of “video pedagogy” and the implications of the questionable amounts of video watching and chromebook, working, teaching and learning, and emerging research is showing “excessive screen time can be harmful to children in their developing stages” and has the potential to present less imaginative moments (Andrist et al., 2014; Gardner, 2019).

I intended to present the data in this chapter in both a descriptive and interpretive way as both are a vital piece of educational criticism. In the next chapter, I elaborate on what all of this means to me with regard to imagination and to the field of ECE. Prior to this, I share the following artifacts that visually exemplified and symbolized ways in which imagination was utilized during my study (see Figure 1).

Figure 1

Artifacts: Symbols of Imaginative Moments



Note. Starting on the left and moving right, from top to bottom: 1.“making a tree” in MIT; 2.my “order” during freeplay in TK’s room; 3.a student creation in Imagination Lake in TK’s room; 4.“making a tree” in MIT; 5.magnetic creations that became “the sun” and “my lunch” during freeplay in TK’s room; 6.“my family” during MIT while other students picked out library books; 7.binoculars that were used both ways, near and far; 8.“a dragon” at the table during MIT; 9.the view through the binoculars.

CHAPTER V

DISCUSSION

> Imagination is not some desirable but dispensable frill, . . . it is the heart of any try educational experience; it is not something split off from "the basics" or disciplined thought or rational inquiry, but is the quality that can give them life and meaning; it is not something belonging properly to the arts, but it is the pragmatic center of all effective human thinking. Our concern is not to promote imagination at the expense of something else - say, rational inquiry or the foundational "3Rs"; rather it is to show that any conception of rational inquiry or the foundation of education that depreciates imagination is impoverished and sure to be a practical failure. Stimulating the imagination is not an alternative educational activity to be argued for in competition with other claims; it is a prerequisite to making any activity educational. (Egan, 2005, p. xii)

The purpose of this research was to witness, document, and share the imaginative moments in three ECE classrooms and contribute to the important body of research on imagination. In this chapter, I intend to explore what all this means by cycling through all the chapters and weaving the information together. I begin by first providing a brief overview of the study included the rationale for my exploration, my connoisseurship and lenses, and my guiding research questions, which all served as the initial strands of the final woven tapestry of this dissertation. I then remind us of the words of previous researchers and mentors, which added to these primary and structural strands, as well as the basic study procedure. Then, it is the "recurring messages" or themes, and criticism, in relation to the questions, which I have woven

in and out throughout the strands creating the interpretive tapestry I share. Lastly, I include some considerations on what this means to the realm of early childhood education in my discussion section and share my perceived limitations within this study before I conclude.

The Initial Strands

This project was an interpretive tapestry originally imagined and now woven into existence. The initial strands are my research questions, rationale, connoisseurship, and the guiding research that served as the trellis for all the other ideas and concepts to climb and weave throughout and be supported.

Research Questions

To keep my mind targeted throughout, I formulated and held onto the following questions as guidance:

Q1 What are the intentions of teachers who use or prioritize imagination within the ECE classroom?

Q2 How are these intentions operationalized in the ECE classroom?

Q3 How do opportunities and space to imagine inform the students' educative experiences?

I was looking as to how, when, and why imagination might "show up" in the kindergarten classes I observed and with the teachers I interviewed. As an advocate for the potency of utilizing imagination in education, I wondered how our early learners were being encouraged to use their imagination to support learning. What do teachers do to encourage imagination or allow for their students to be imaginative? What educative experiences do these imaginative moments enable? How can other early childhood educators tap into this resource as well?

Rationale, Connoisseurship, and Lenses

I often ask myself, “How can I support teachers to tap into the resource of imagination?” In fact, I spend most of my waking hours (when not writing my dissertation) in early childhood classrooms or with young children in general; therefore, I have remained fully engrossed in my research questions and wonders of imagination throughout this process in and out of my research site. I saw the ways in which a child’s opportunity to imagine, or not, as a strong potential source and contributor to the inequity was pervasive in our larger society and it frustrated me; therefore, I choose to be an advocate for the space and time dedicated and allotted for this mental process in ECE classrooms and speak about it as often as I can. I support teachers in tapping into the resource of imagination by talking about it all the time. In my daily work with children, I know the potency of imagination in shifting engagement, behavior, and learning and in providing a sense of belonging and being heard as an individual; and believe every child should have this opportunity and support. I also believe many educators are unaware of this tool, yet it is readily available (in the minds of their students).

This tool of imagination was a priority for Sir Ken Robinson (2017) as well, and I am incredibly grateful for the support and advocacy he provided for the need for inclusion of imagination and creativity in education. I utilized his definition of imagination to anchor me throughout my research as he and I see imagination as “the process of bringing to mind things that are not present to our senses" (Robinson, 2017, p. 128). Being the internal process that it is, one has to rely on external comments, questions, or creations to collect data or measure the occurrences. When observing in the classrooms, I was able to hear, see, and smell the environment as the students were; therefore, I paid specific attention to what the students were saying and doing in response to their environment. I then interpreted whether it was an

imaginative moment or not. With the collection of data, it became obvious as to what prompted or provided space for imagination and when students or teachers were "bringing to mind something that was not present to their senses" (Robinson, 2017, p. 128).

Present to my senses was the perceived need for the teacher-participants to abide strictly by the curriculum and state standards and to "get the students reading." What was not present to my senses was why that would eliminate the use for or space to imagine. The curricula held a bounty of opportunities to involve the minds of the students in imaginative ways and I *know*, due to my work with curriculum, that state or core standards very easily fit into any well-developed lesson plan or curriculum, which these would be considered. This is not to say there were not imaginative moments, in fact there were, yet to suggest there could have been more.

If I am to advocate for the students in these classrooms, which is what I intend to do here, it would be to suggest that there were many voices left unheard in these classrooms, and they could have been heard through imaginative moments. Aside from brief shares during morning meetings, there were some classrooms where students were not permitted to share individual thoughts or questions much, with the exception of freeplay. The sharing of imaginative thoughts was limited and, when thinking critically, I can see the ways in which this attends to the hierarchical power structure of our larger system and inequitable learning opportunities within the education system (Chunoo et al., 2020). Our natural inclination to imagine can be fueled by the opportunities provided in educational settings, which would nurture our "inner drive to learn about the world," and lead to the student-engagement these teachers are striving for (Eisner, 2017; Pratt, 1948/2014). There was, in fact, student engagement, less behavior challenges (and "take a break" needed), and positive learning experiences when students were permitted, and even prompted, to share their imaginative thoughts. This space we provide for imagination and

"its power to give unity and meaning to their experiences" is an investment in our students, how they learn, and one to prioritize (Takaya, 2017, p. 211).

Guiding Research

It has been the collected words of other brilliant researchers, who suggest prioritizing imagination and utilizing imagination with "integrity, vision, courage, and passion," which laid the foundation for my research (Townes, 2016, p. 368). During initial interviews, I shared my utilized definition of imagination with the teacher participants and gave credit to Sir Ken Robinson (2017) who saw the lack of imagination and creativity in schools as a pitfall and called for a reprioritization. Robinson suggested that it is in acknowledging "that which is not present to our senses" and with "hypothesizing about things that have never been but could be" that important learning occurs (i.e., the "6000+ languages humans have imagined and created") (p. 128). Imagination is integral to our ability to empathize and navigate the social and physical world (Robinson, 2017; Vygotsky, 1978). Even further than navigation, it is the power and practicality of imagination, which Gillian Judson (2023) highlighted, that allows us to understand and make *sense* of stories and the world. When TK asked, "why is he [Sammy snake] so tired?" and made the sound "zzzzz" (to indicate he was sleeping), the students needed to utilize their imagination to understand the scenario and story to consider, "when he's at the end of a word he's tired," which a student suggested. Yet, when TK clarified and said, "He's tired because he is in so many other words," the students needed to imagine the connection between this "secret story" and the appropriate sound for the letter 's'.

Edith Cobb (1959) found links among imagination and the relationship children develop with their natural environment as a "requirement for future physiological and psychological well-being" which aligns beautifully with the school in my research (p. 537). They claim to approach

learning opportunities through a “system” way of thinking and look to compare social systems with natural systems in first grade. It is the focus on the natural system and in understanding a “system” that kindergarten works on throughout each unit. This would seem like a perfect opportunity to incorporate imagination, in that most working parts of a system are not visible to the senses; therefore, they must be imagined in one’s mind to understand.

When people are curious, they ask questions or explore a topic in their mind; and in doing so, they often imagine something “beyond the immediately given” which has the “power to give unity and meaning to” the material at hand (Takaya, 2017, p. 45). This exploring, imagining, and making meaning leads to learning. Shank (2015) referred to imagination as the “connective tissue” of learning and understanding (p. 10). In the example I provided above, when Ashley Hastings was asking the students about trees, it was the imagining of being a tree and questions she asked, which caused them to think imaginatively and recall important information. This allowed them to make mental connections and more likely to remember and understand the material because “knowledge and the imagination work best in *conjunction* with each other because each offers its own attributes” (Shank, 2015, p. 170).

Study Procedures

In order to better understand the material explored, I utilized a qualitative framework of educational criticism for this research (Uhrmacher et al., 2017). Educational criticism allowed me to tap into my knowledge and experience (i.e., connoisseurship), my positionality (i.e,. teacher, parent, and imaginative individual), and my curiosity in order to explore the presence of imagination in ECE.

Data were collected throughout this study within three different early childhood classrooms (i.e. kindergarten) with a focus on exploring the presence of imagination. The three

teacher participants were interviewed before observations began and after they concluded. Each teacher and corresponding classroom activities were observed for eighteen hours and artifacts were collected during observations. I utilized Eisner's dimensions of school ecology as guidance and observed the classrooms of inquiry with a focus on teacher intentions, curriculum, and pedagogy.

Annotations were made throughout the collection of data and recurring messages emerged among these annotations. These recurring messages served as themes and therefore answers to my research questions.

Recurring Messages and Emergent Themes: The Answers

While weaving the collected data in and out of the initial strands of my research, patterns became visible. The disclosure of these patterns and relationships expose the recurring instances of imaginative moments and provide answers to my research questions (Eisner, 2002; Uhrmacher et al., 2017). I have related these patterns to the concept of affordances, which relate directly to the *intentions* of teachers, how these intentions are operationalized in the classroom, and how this informs the students' educative experiences. Affordances, which Maier et al. (2009) defines as "indicators of the potential for a behavior, but not the actual occurrence of that behavior," became an overarching theme throughout the data as the research evolved (p. 398). Maier et al. suggested that "an affordance must first exist before the behavior can ever be exhibited;" therefore, an intention, curriculum, or one's pedagogy can afford an imaginative experience (p. 398). Although the themes, or affordances, are interwoven, I separate them here as best as I can to answer each research question separately.

Research Question 1

Q1 What are the intentions of teachers who use or prioritize imagination within the ECE classroom?

"The affordances that are available and those that are restricted" within a learning environment are indicative of the intentions of the teachers (Kochanowski, 2022, p. 22). Intentional affordances come in a variety of shapes and sizes and include the prepared learning environment, the provided toys, books, and other items available to the students, and the ways in which teachers move or engage the students throughout the day. The teacher-participants prepared their classrooms slightly differently from one another, yet basic furniture and arrangement of the rooms were similar. All three teachers had their student-desks in connected lines facing the white board. This could allow for direct neighbors to chat with one another, but limits group work at desks. This intentional placement of desks, limited peer talking at times other than during freeplay when they moved away from their desks and around the room. The arrangement of the classroom is intentional; and these Kindergarteners are not encouraged to talk at their desks. Even during a time which I find to be a prime social opportunity - snack - the students were restricted from talking to one another and a video timer was played up on the screen.

Ashley Hastings, with the largest room, provided much needed physical space for students to move around during freeplay and the students spread out. The students playing with the cars took over the entire carpet area (and sometimes beyond) because they were afforded this space to move and play and imagine fast-paced races with one another. In TK's room, the students congregated along the back wall where the kitchen and campfire were located. This was the most open space in their classroom and TK's desk/small group table was located directly next to these areas, which afforded the opportunity for the kitchen-players to serve TK a

delicious meal (or many). There were a few areas in Mrs. B's room where students gathered during free play. Some students played on the carpet area, such as the animals and ponies (sometimes). Other activities, such as the train track, which needed a very flat surface, set their items up on the hard floor behind the student desks. A couple students played in the kitchen and doll area, yet it was not a popular area during my observations. I was curious as to what made Mrs. B's kitchen area less inviting than TK's and Ashley Hastings? Or was it just the group of students who had preferences?

There were students who preferred the ponies and others who chose the animal figurines every time during freeplay. These were intentionally provided, open-ended objects for the students to utilize during freeplay. Open ended toys and objects afford opportunities to imagine a variety of scenarios and perspectives. It was with the provided supplies in the library where I witnessed the most imagination of all my observations. At each table there were one or two bins full of objects to build with, such as magnets, playdough, wooden blocks, double H pieces, etc.. During one MIT class, the teacher asked every student to choose a table to sit at and to use the objects on that table to create a tree. It was the intentionally chosen objects this teacher provided these students that afforded an imaginative experience. It was the intentional freedom and space this teacher provided to "make a tree, the best you can, with your materials," that was necessary for the students to use their imagination. "I made a trunk, but I'm not done," one student said as they used the wooden blocks and onward they created.

I have found that it is not only the physical environment or provided objects that affords an imaginative learning experience but more importantly, the emotionally safe environment that a teacher prepares and maintains. TK was very intentional with how she responded and spoke to the students during my observations. "Can we do a sitting check" she would begin each carpet

time activity, asking students to check-in with themselves in order to hold themselves accountable first. She was intentionally respectful of multiple languages and cultures, involving them in morning meetings, like when she led the students in singing, “shalom, shalom, and how are you?” one morning. TK knew that morning meeting was of value and afforded the space and time for this to occur each morning. “Remember, when we do our greetings, we are showing the other person that they are important to us, so we look at them, we use their names, and we say ‘good morning’ in our big kid voices” TK said one morning when she noticed some students not participating as expected. After this reminder, everyone in the circle spoke loudly and clearly and looked at one another when it was their turn to greet another student. On this same day, TK led the students in a “super, super simple activity” of following the chant. She began with, “now, we’re walking, walking, walking, walking, and now we’re still” and the students walked around the room with her until the “still” part, when they paused. It continued with marching and slithering as well. TK spotted one student who was moving around aggressively and she asked them to, “please go over and take a three second breath and then rejoin us” to which they did perfectly. Once the chant was over TK asked them all to sit back down and, “before I start the song, let’s do a calming breath so we have the extra oxygen in our brain cells” and she led them through a deep breath, holding it in for three seconds and blowing it out.

Research Question 2

Q2 How are these intentions operationalized in the ECE classroom?

It can be both through curriculum and pedagogy where teacher intentions are operationalized. Mrs. B, TK, and Ashley Hastings followed their provided curriculum with fidelity. They maintained their rhythm and pace as one through the units of math and EIC. They “visited” Letterland daily and remained on target with the letters and words of the week

according to the curriculum and kindergarten-team pacing. They flowed through their math corner and Bridges curriculum alongside one another, providing unit tests simultaneously.

There were aspects of their curricula that afforded the opportunities to imagine regardless of the teacher's intensions. Imagination was still present even when the teachers did not specifically intend to engage imagination. Letterland was the most prominent of these due to the daily visit to an imagined land where letter characters live, work, and play. The students identified with these characters and recalled them throughout the school day (and maybe beyond). The letter characters/letters were introduced and "met," and learned about, mostly on videos played by the teachers, yet followed up with on their chromebooks during independent work during literacy centers. During this time, the students rewatched the videos, bobbing along to the rhythm, and practiced writing the letters on their chromebooks.

The Bridges curriculum was full of Mathematical questions and asking students to make guesses on patterns and numbers. Mrs. B was animated during math and provided a little space after each question for the students to think before answering the questions. The questions along with the space were affordances for imaginative moments. The questions encouraged curiosity, which stirred imagination and got the students thinking more deeply about the concepts at hand.

The pedagogical affordances that have been highlighted through my data are the questions teachers ask, whether they leave space for answering, and the space for students to ask questions as well. Even asking some "would you rather" questions during morning meetings serve as affordances for imaginative moments. "Why do we need trees?" was a wonderful thought-provoking question, but if left no space for any answering or curiosity, there is very little (if any) thinking, just recalling information. The space, if provided, affords imaginative and higher level thinking.

Although Letterland provided a daily visit to an imagined land where letter characters live, work, and play, it was the modeling and participation of the teachers that actually afforded space to imagine and be fully engaged. Mrs. B and TK got on that train with the students and remained close while in Letterland. In instances when the teacher walked away from the screen and action, the students were less engaged and more students "misbehaved" and were sent to "take a break" during this time. The teacher's involvement and proximity matters, not just when in Letterland, but with all curriculum.

Questions

When TK asked, "what does a tree need to survive," the students had ideas or pictures in their minds and they varied from one another, and when they were asked to share their thoughts, they were mostly recalling from the instruction moments ago. In order to introduce another idea about trees, Ashley Hastings played a video of the book *The Kapok Tree* and once it was over she asked the students,

> "Who can tell me, why do *we* need trees? Or why do *animals* need that [Kapok] tree?" "Air to breathe" (Student) "Yes, Oxygen" (A.H.) "A home for animals" (Student) "There is um... That they can't chop it because of the branches because of the soil" (Student) "Yes, this was in the rainforest, and they get a lot of rain there, and the trees help to keep the soil in place and not erode, good job (A.H.)" "Did it give the man anything to sleep there?" (A.H.) "Oxygen" (Student) "Yes, but what else?" (A.H.) "Shade" (Student) She followed this up with another conversation a few moments later: "Trees give us wood. We need pencils to write with and houses to live on." (A.H.) "But we can write with pens and gel rollers" (Student) "But we can't erase those" (A.H.) "What else do trees give us?" (A.H.) "Gives animals homes and shelter" (Student)

The teacher asked the students to stand up and be a tree for a moment. Then after they sat back down, she asked them, “what does a tree give *you*?

> “Oxygen” (Student). “Water” (Student). “It makes home for animals” (Student). “It cleans our air” (Student). “Nutrients” (Student). “Does a tree give us nutrients?” (A.H.). “What do nutrients even look like?” (Student). “What do trees give us?” (A.H.). “Shade” (Student). “Branches to play in” (Student). “Okay, sure, if you want to play” (A.H.). “We wanted a treehouse, but our branches are too close together” (Student). “What about trees when it rains. Does anyone remember what I said about how trees help us? What in the ground from getting washed away” (A.H.). ‘Soil” (Student). “How about the tree itself? Everyone stand up. Be a tree trunk. Remember I said the tree trunk can give us some things. What can the *wood* from the tree give us” (A.H.). “Houses” (Student). “Campfires” (Student). “Books” (Student). “Chairs” (Student). “Yeah, some furniture is made with wood” (A.H.). “Pencils” (Student). “Sit back down, very good. Do you think trees give us a lot of things? Is it okay if we cut down some trees?” (A.H.). “Axes” (Student). “What should we do if we cut down a tree?” (A.H.). “Ask it” (Student). “Say sorry” (Student). “Plant another” (Student). “When you're on the way home today, think, where is a good place for us to plant a tree? On the bus or in the car or while you're walking home, look for a good spot to plant a tree. And I will ask you tomorrow.” (A.H.).

One can notice the moments in this conversation where students were imagining the possibilities (i.e., “ax” and “say sorry”) versus repeating back facts that they had just heard (i.e., plant another). They were next asked to imagine they were a tree and later to find a good spot to plant a tree. Both of these prompts most likely encouraged the students to be curious, and if they remembered, on their way home from school to imagine planting a tree in various places along

the way, these teachers afforded the opportunity to prolong the imaginative experiences and educative moments of these students. “Being imaginative suggests being in pursuit of ideas driven by curiosity and fascination about the subject or task” which makes education and imagination complementary (Gulla et al., 2020, p. 5). Another piece to notice from the above discussion was, “what do nutrients even look like?” a student brilliantly asked. I may have been the only one to catch this question though, sadly, yet what a thoughtful and curious question this is. Due to the very specific and tight agenda, teachers deprioritize student questions. An inquiry-based approach would take that question and use it to learn more about nutrients, perhaps. Student questions are often indicative of their curiosities and interests, as our questions tend to be, and lead to imaginative moments. “Imagination makes education relevant” and relevance is what we seek as educators in order to support our students in making mental connections (Liu & Noppe-Brandon, 2009, p. 31). A small space for student curiosities, inquiries, and imaginings can afford a deeper and more meaningful learning experience and strengthen one’s ability to process and make meaning of events and ideas (White, 1993).

Read-alouds are often very meaningful experiences for students, and provide space for imagination and curiosity as well. Before, during, and after are great times to ask questions about the book as well. While Mrs. B read aloud the book *Ladybug Girl and Bumblebee Boy*, a child “interrupted” and asked “Is he really a bumble bee?” and Mrs. B responded immediately with “keep it in your head”. I understand the desire to keep the book moving along and student-talking pauses the flow, yet these moments of curiosity (if that was what it was) could encourage a more robust experience for this student and others, which is the point of read-alouds. Mrs. B asked her own question at the end of the book that motivated students to imagine possibilities and share their thoughts. She asked, “what kind of bug would you want to be as a superhero?”

and added, “think quietly first”. The students shared answers such as “A spider, to web people up.” “A dragonfly, to breathe fire.” “Ladybug, like ladybug girl.” “A butterfly, to fly.” “ A rainbow bug, to make people into rainbows.” “A grasshopper jumping really high.” After all students had shared, Mrs. B asked, “Would that be fun to have a superhero bug party?” and the students agreed that it would. She asked, “Where is all this happening, in the book? How are they thinking about being bug superheroes?” and a student answered, “Their imaginations”.

There were many moments throughout the many aspects of literacy instruction where questions were asked to engage the students and get them thinking again. “Who can tell me a story about these two letters?” Mrs. B asked of ‘a’ and ‘m’ together to make ‘am’. Following this, she asked, “how many sounds do you hear in ‘can’?” and they made the individual sounds together, reviewed the letters in the word and checked their answers together. In these two cases, the questions were the entry points into the minds of the students.

During morning meeting, Mrs. B asked, ‘would you rather be really, really, really small, so tiny so you could get into a tiny place, or really, really, really big and you can move by just taking big steps” and each student was given a moment to share their answers: “I want to be big like a dragon!” “I want to be really small so I can be like a mouse” “Big, because if you were small people would step on you” “Super small to go under the wall” “Super, super, super, super tiny because I want to climb” Mrs. B concluded the conversation with, “I want to be big so that I can see the whole entire town” and the students “oooo’d” in response as they imagined her as a giant.

In addition to the very popular “would you rather” questions, research has found that “asking wh-questions (many of which are open-ended) is related to greater vocabulary learning compared with asking closed-ended questions” (Rowe et al., 2017, p. 173). Read-alouds lend

themselves to asking open-ended questions which provides an opportunity for students to imagine and consider the possibilities within the book and make connections with their own experiences (Wasik & Hindman, 2018; Zucker et al., 2013). Questions are important in engaging students and their imagination, yet it is the space or time provided after the question that makes even more of a difference (Wasik & Hindman, 2018).

Space

Providing space is often time-related, particularly after asking questions, and even just a few moments might be all that is necessary. This is often referred to as "wait time" or "think time" in teacher training programs and consists of a pause for students to think before answering. What children do with this space is process, connect, and imagine. With wait time research has found that more students volunteer to share their thoughts and ask more questions (Wasik & Hindman, 2018). When there is a lack of space or time for this, the student-thinking has been muffled and shuffled onto something else (or filled with a video). When the teachers provided space not just to answer questions but to think, work, create, or even wonder, the students responded in positive ways.

In the library, during MIT, when making "trees" at the tables out of open-ended supplies, the students were engaged, imaginative, and "on-task". They responded in positive and thoughtful ways through their creations. It was the open-ended items that were provided that served as the space to imagine and create. Cubes, magnetic manipulatives, blocks, double H connectors, etc. equipped students with infinite ways to build, create, construct or play. "Experiences adjust the blueprint by physically shaping the architecture of the neural circuits;" and this experience of freedom, imagination, and personal vision afforded a moment to create and shape their brain's neural circuitry (Kochanowski, 2022, p. 23). It was not the ways in which

the desks were placed or that they sat at desks, necessarily, but the time and freedom they were allotted which served as the space they needed. They were very thoughtful in their creations and no one was “taking a break”.

Another place where I noticed students being thoughtful in their creations, was within their jot-journals. This occurred in all three classes, but were encouraged in differing amounts. Students were provided a composition book at the beginning of the school year which provided space to draw and write independently. They kept this jot-journal in their desks and were invited to bring them out throughout the day during “down” times, such as when they completed their classwork or after snack or lunch while waiting for others to finish and write or draw in them. This was a physical area, which provided a mental space for the students to imagine and process, or just be random and free with their creations. The jot-journals were filled in very different ways by the students. Some filled up multiple pages at once with large and vibrant illustrations. Others used them to practice letter writing or during freeplay when playing ‘school’. One day, Ashley Hastings had to complete some individual assessments at her back table, and invited the other students to use their jot-journals during that time at their desks. She also played a Berenstain Bears video during this time, which most students chose to focus on rather than the jot-journals. A particular student who I was sitting near, was more engaged with their jot-journal than the movie and he told stories through his illustrations, speaking aloud at times and showing a neighbor his creations. Although I wanted to capture photos of these jot-journals, students appeared to treasure them and did not seem open to my perusal. They are definitely mental artifacts for me, yet not physically photographed due to the potential invasion of privacy. These jot-journals were physical spaces for freedom, personal exploration, creativity, expression, and imagination.

There were similar moments of potential space between activities or during transitions, where time to think & imagine could occur, or where students could collaborate with one another which they were aching to do. It felt like these moments were filled with videos or mandatory silence. Perhaps there were still imaginative internal moments occurring within the silence, yet the opportunities for processing and tinkering with one another were limited to recess and freeplay. When considering that "early experiences can either support or inhibit neural connectivity" we may reconsider what we "fill" the students' time with more thoughtfully (Kochanowski, 2022, p. 24). During one quick moment when students were talking casually with one another, one child said, "my dad let me smash my pumpkin with a hammer," and the other responded thoughtfully with, "weren't you going to make pumpkin pie?" This form of connection was important, included moments of imagination as the one child imagined what they would have done or recalled what they had done with their pumpkin, and afforded a positive experience in school. The space provided, during transition, for that conversation was valuable socially and mentally.

Research Question 3

Q3 How do opportunities and space to imagine inform the students' educative experiences?

The student who had been given the opportunity to smash his pumpkin with a hammer was curious as to the effects of the action and was provided space to figure it out (at home, thankfully). The student who preferred making pumpkin pie with their pumpkin, was afforded space to recall that from their own experiences and share their curiosity about why others wouldn't do the same. This space for curiosity is important and where, in my observations, I noticed imagination as well. When I observed recess, there was one student who was very curious about my presence. The first day she spied me, she said,

> "What are you doing here?" to which I answered, "I am looking for something" (Me). "What are you looking for, kids who are RC squared?" (student). "I like seeing that too, but I am looking for imagination." (Me). "What even is imagination? Do you mean when I play with my unicorn like this?" (student) and she galloped away, only to return with more thoughts and a spiky seed-covering from the trees. "What are those?" another student asked in reference to the spikey seed-coverings, "because it looks like a hedgehog" (student). "They do! These are our baby hedgehogs!" (student). "Well, I'm not going to step on our baby hedgehogs." (student). "No, that would be so sad." (student). "Another hedgehog!" said the original child of the conversation when running up with another spiky seed-covering.

The student was curious about my presence, so we engaged. She was provided space to share her curiosity because it was recess. The students connected over the curious spiky-seed coverings that were imagined as baby hedgehogs. This play, which was occurring outdoors, "sparked curiosity and inspired a new adventure in learning," imagination, and relationships (Phillips, 2014).

Recess was a clear opportunity to imagine, yet in the classrooms, when teachers or adults shared their curiosity aloud, students became even more curious, engaged, and imaginative. As I spoke about before, TK encouraged the students to be curious on their way home from school and to "look for some good places to plant a tree". They were curious as to what they would find on their way home from school; the students were also provided space to make connections between school and home. Space for connections of ideas, physical environments, and with other individuals are all important for student learning *and* well-being. Allowing students to explore and express their imaginings, which stem from their cultural beliefs and personal experiences,

encourages more spaces for connections of ideas and among students (Brooks, 2002). This space is vital for class communities to evolve and for students (and teachers) to feel heard, seen, and that they belong. When we feel that we belong and are safe, we are more likely to be reflective and to share our reflections with others, which allows the group to connect more and to grow with one another. During relays in PE, the students were asked to reflect aloud and consider, "what went well and what can we do better next time". This space to reflect, provided by teacher questions, encouraged students (and the teacher) to consider their actions and imagine possible group or personal improvements.

Space to play is another area in which group and personal improvements occur. The space or time that is provided for freeplay "affords the opportunity to build new skills and acquire new knowledge, resulting in a strengthening of brain connections" (Kochanowski, 2022, p. 26). This was provided daily in each of the kindergarten classrooms and an incredibly valuable space it was. Space to play is naturally also space for exploration and interpretations to be made. This affects the student-perceptions of school, sentiments of social safety, and sense of community. Most, if not all, of the students were engaged in some imaginary experience during freeplay throughout my observations. They were cooking in the kitchen, racing cars, naming and fighting with animal characters, building fires, participating in a dance competition or judging it, taking care of their babies, or building meatballs out of LEGO. This space was active, imaginative, vibrant, and positive; students were happy, engaged, and attending to one another socially.

Many students were also quite happy when videos were played. (There were many videos played during my observations, at least one per content area.) The intention was often to engage the students, and this was usually effective. During the more active videos, the students were

also vibrant and positive and these were intended to be “brain breaks” and played in between lessons when the students are expected to sit and “learn”. There were some videos played, which students participated with, that I had to consider whether they were imaginative moments or not. One even said, “imagine and breathe as you paint the rainbow” and there was a peaceful paint stroke shown with each color of the rainbow. What this was, at closer look, was a practice in following directions and intended to keep the students on task. They were “going on a turkey hunt” during another day and it would have been considered imaginative, but it was a video and therefore it was present to our senses. If there was not a video, but rather the images were only in the minds of the students, rather than on a screen, it would have been imaginative.

There were videos played during snack, which were intended to be a timer, but served as a distraction for the students as they watched the “leaves fall” behind the timer or colors swirl on the screen. Most of the “read-alouds, during my observations,” were videos of someone else’s voice reading the book and showing the pictures. Perhaps some of the teachers are not sure how to embrace or “handle” the complexity of a child’s imagination and so they avoid the space for it to occur and instead fill the time with other things, such as videos.

It was the space provided and questions asked which I “identified as recurring messages” within my observations (Eisner, 2017). These affordances (i.e., space and questions) surfaced repeatedly through my annotations and further analysis. There were teacher-provided spaces among whole and small group conversations, during transitions, and after questions; and this is where curiosity and imagination was witnessed, students had opportunities to think, imagine and share their ideas, and students developed imaginative moments and ways to connect knowledge, and with one another.

Discussion: The Woven Tapestry

It is at the confluence of the initial strands of this project, which include the research questions, my connoisseurship, and the review of literature and research and the recurring messages & emergent themes where the tapestry is created and the connections surface. These woven pieces of interpretations create the story, and "explain the meaning" of imagination within the context of the learning environments of inquiry and form a more "complete picture" and "interdependence between sensory experience and ways of knowing" (Uhrmacher et al., 2017, p. 10). This section elaborates on this woven tapestry and provides discussions we are better equipped to have because of this research.

In weaving my research questions back into the emergent themes, we see the intentions of teachers within this study who use or prioritize imagination within the ECE classroom vary are not necessarily the reason why imagination was present. The teacher participants did not originally intend to use or engage imagination as a teaching tool, but later perceived the ways in which incorporating imagination can get students, "wondering," make learning feel less daunting and difficult, encourage "higher level thinking," engage students, encourage students to "want to be here" at school, provide social opportunities for the students, and encourage students in "developing their own conclusions" during explorations and forming "connections" among content knowledge (Ashley Hastings, Mrs. B, & T.K. in follow-up interviews). Despite teacher intentions, imaginative thinking was operationalized in the learning environment. The teachers provided space to think, whether after questions asked, or even in between activities, which also provided space to imagine. The prepared physical learning environment fed into the way the teachers' intentions were operationalized as to what was available and accessible for the students

throughout the day. They may not have originally intended to engage the imagination, but rather space to play and learn. Imagination was still present.

Transitions are often a time when teachers will say they have “classroom management issues” yet these teachers did not express that, in fact, due to the ways in which they called upon imagination (even if not by name) to transition, allowed this time to flow smoothly. Some examples I witnessed were when the students were asked to, “hop like a grasshopper as we count down and back to our seats,” or when the teacher said, “okay, I have a challenge; we are going to tiptoe to the line and be so quiet that [teacher] will be so surprised,” as well as, “let’s be super quiet and RC2 when she [the next teacher] comes in and they won’t even know that we are here”. When they were given the space and freedom to move about the room, even independently, a child “rode” his “horse" (i.e. lunch box) over to his seat while smiling broadly.

These opportunities and space to imagine inform students’ educative experiences, indeed. Although I was unable to be in the minds of the students or even allow them to express their complete thoughts to me throughout the day, it took my own understanding of imagination (i.e. connoisseurship) to see it and draw it out. I was able to notice differences in their behaviors because our behaviors are truly indicative of our attention, cognition, and interest. One specific way I observed was in witnessing less behavioral mishaps or “problems” when the students were engaged imaginatively. For example, when the students were in the library and asked to “make a tree, the best you can, with your materials, and you only have about five minutes to do so” they were *fully* engrossed in their creations and in imagining the trunk and branches of their tree. They were seated or standing at the tables, as expected, focused on their supplies and creation. There was not one student asked to “take a break” or uninvolved in the process. The teacher walked around asking the students separately, “can you tell me about your tree?” This prompted

the students to describe the parts of their trees. The trees created, of course, looked vastly different from one another, yet that too was a wonderful educative moment because no two trees look exactly alike in nature either.

During instruction, when there were questions asked *and* space for thinking and answers, the students' comments were often imaginative, yet they were also thoughtful and engaged. When asked, “what is a real life example of a circle?” the students shared many ideas of items that were not present in the classroom such as an apple and Oscar Orange (the Letterland character for O). In this same incident, Ashley Hastings formed a sphere with a chunk of model magic in order to discuss 3D and 2D differences. She asked, “do you think I can turn this sphere into a circle?” and the students called, “smoosh it!” which she did, then asked, “does it have any sides? Does it have any corners? Can it roll? Is this a circle?” and the students excitedly compared the 3D sphere with the, now, 2D circle. What made this a more powerful educative moment, were the questions the teacher asked to encourage thinking and imagining. It was after a teacher asked a question when students were seen more engaged and responding thoughtfully.

Another area where I noticed impromptu educative moments, which involved imagination, was during student negotiations, or opportunities for peers to work out challenges or disagreements together. This occurred during freeplay and recess, and students were observed imaginatively negotiating about what the appropriate name for the animal characters *should* be (because they felt very strongly about this) and what kind of dance was required for the “competition” in order to enter and “be judged”. These non-threatening, play-based imaginative moments provided the students space to negotiate with peers and navigate a very common social situation, yet safely. These afternoons of freeplay afforded imaginative opportunities *and* moments of big learning experiences. This is, in my perspective, a contributor to, according to

my theory of, imagination capital. These children, who were being given opportunities to negotiate imaginatively will be better equipped for future real life negotiations and situations.

Also theoretically contributing to their imagination capital, were the more active and engaging experiences offered throughout the school day. Although these were more plentiful during free play, recess, and morning meetings, when students were found imagining, they also occurred during more formal instructional time. Kochanowski (2022) highlights the importance of "experiences" and "advocates for the *standards of experience* rather than the academic tenets often referred to in state standards and core benchmarks" which the teacher participants felt limited by (p. 26). The space provided for imagination through a variety of experiences such as raking leaves outside or as "treetectives" enabled students to move about and explore curiously the world around them and within themselves. "Get over here leaf boys! This place is a wreck!" said a student during their time raking. Another student said, "this is hard work" while yet another imagined a leaf-raking competition and shouted, "I'm definitely winning!" These activities encouraged the '"understanding of norms" and practice of "self-control" due to the natural engagement of curiosity and a sense of adventure; and space to imagine and move (Egan, 2005).

In addition to the engagement of curiosity and adventure, Egan (2005) emphasizes the use of "primary cognitive tools," which are vital for teaching and learning, found within imaginative education. I witnessed some of these "tools" utilized during the learning experiences, such as in the secret stories of Letterland. Egan (2005) sees stories as "one of the most powerful cognitive tools students have available for imaginatively engaging with knowledge". Additionally, during number corner (math) there were daily patterns discussed, which have the "power to engage the imagination" and they did (Egan, 2005)! Jokes and humor

were often used during morning announcements, but also Mrs. B admitted to this being a tool she heavily utilizes in order to engage her students and help them “enjoy school”; and Egan (2005) highlights the ways in which they [jokes and humor] assist in “encouraging flexibility of mind”. Also, the mental imagery required of students when exploring the Letterland characters is a “more imaginative and memorable force than concepts alone” according to Egan. Upon weaving all of this together, I am thrilled by the amount of imaginative opportunities these students were afforded through the curriculum provided and pedagogy of the teachers. Egan states that “the aim of imaginative education is much more knowledgeable students who are able to think flexibly, creatively, and with energy about the knowledge they gain about the world and experiences” (Egan, 2005, p. 9). This is what I want not just for my own children, but for all children, the opportunity to imagine and think more flexibly.

Pratt (1948/2014) claimed that a child’s “firsthand experience would always inspire their imagination better and result in a more meaningful store of knowledge” and that their “inner drive to learn about the world” would be lost “unless they were encouraged to use their imaginations to explore the world through play and expressive activities” (p. 73). These claims lend themselves in support of not only imaginative education but also to experiential and exploratory learning, which are presently praised pedagogies. Imagination does not need to be an isolated idea or practice, in fact it should not be, but rather easily incorporated into most pedagogies and curriculum. It can also serve as a guiding principle of practice throughout pedagogies and curricula, as it did with my teacher participants, even if not visible to themselves at first.

Familiarity With Imagination

There was a hesitation among the teacher participants to label their own intentions or actions as imaginative at first. It was as if "imagination," when first discussed with my participants, was a new concept, (sometimes lumped together with creativity & play) and was apparently not an area of daily conversation for these teachers. I actually find this to be a very common sentiment when I speak with people about my research, I find imagination is just not spoken about. Because it does not appear to be discussed frequently or taught in teacher preparation programs teachers do not give it much thought. I am curious though, as to what would it be like if teachers were instructed on the inclusion of imagination and they did give it a thought?

I believe this is why we do not hear about imagination in education as often as I prefer. Teachers have not been encouraged to give it a thought. People have not been encouraged to give it a thought. Yet, if the space to imagine, think, and ask questions feeds the imaginative brains of these kindergartners and keeps, or gets, them engaged and learning, why has it not become known as a "best practice" and why is it not talked about more? Perhaps it is the inability to "measure" imagination's potency or occurrence? The fear of a potential inability to "control" the imaginative experience could be another cause? Yet talking about it, even just among educators, could debunk any need to fear the freedom or space to imagine, and rather encourage the use or place of imagination in education.

What is perhaps most interesting to me was the ways in which the teacher participants utilized imagination, and had not preconceived the inclusion of such, because it was not in their schema before this research entered their classroom; yet when discussed and pointed out to them, they agreed that it was clear in the ways imagination played a role in their everyday teaching and

learning. In these classrooms, they shared "secret stories" without physical pictures (other than the letter the story was about) and in doing so they afforded the space for imagination, which better allowed students to connect and remember the information. They provided open ended toys/objects and asked open ended questions, which required imagination to engage with or answer. They asked questions or prompted "would you rather" opportunities for students to think and imagine. They provided space for freeplay and recess everyday, where students imagined freely and wildly with one another and independently. The teacher participants admitted to thinking more about how these actions afforded opportunities to imagine since beginning this research together and that in and of itself is something to celebrate.

Implications

I have found that it is *my* role in this world of education to start conversations about imagination and get people thinking about imagination and the ever-present tool that it can be or is. I am not alone, of course, yet moved to stir up anyone's thinking that I can. I am a self-proclaimed imagination advocate: weary and critical (in kind and constructive ways) of classrooms void of imagination; and captain of the cheer squad in pointing out ways in which teachers are showing up imaginatively. I will continue talking and exploring with anyone willing to dive in with me (and sometimes even those who are resistant). And although there was no paradigm shift in what I believe to be "true" about imagination in early childhood education, I am fueled and inspired to talk more, write more, and teach more about the value and place for imagination in early childhood education. What a place it has, indeed! I witnessed students making sense through their imaginings and forming connections with one another and with content and information. I observed the power of questions and how they stirred up the minds of students and got them thinking, imagining, and sharing. I saw and heard (and even felt) the

student imaginations during recess and freeplay when they were provided the space for freedom, exploration, and play. They were using their imaginations to negotiate, navigate, collaborate, and connect.

Takaya (2004) suggests, within their inspiring dissertation, that including "imagination in an educational practice, suggests an effort to become more mindful of what the student may be able to achieve and how the teacher may be able to make changes in assisting the student's quest" (p. 85). This is true differentiation and the key to child-centered learning. Providing space in the day for students to use their imagination during instruction and making space for questions that engage the imagination allows instruction to be more authentic and educative. It is not just student-imagination that is potent and necessary, yet teacher imagination as well. In fact, it is the teacher's imagination or willingness to imagine that sparks more imaginative ideas from the students *and* increases learning potential due to the engagement power these moments entail. This is the implication for teachers, to acknowledge their own imagination and that of their students and the potential these moments may hold. Teachers need not reinvent their curriculum (in most cases), but begin talking about exploring ways in which imagination surfaces, or could, in their classroom learning environment. Best practices, such as relevancy and differentiation are encouraged, yet, it is the moments where these teachers utilized or provided space for academic and social imagination that made the learning relevant to the students and applicable to their lives and abilities (Liu & Noppe-Brandon, 2009). "Both play and the environment are significant factors contributing to children's developing imagination" and teacher awareness about the implications of how they prepare and support the environment and provide opportunities for play are important (Yonzon et al., 2022, p. 3). In knowing that open-ended questions influence higher level thinking *because* it stimulates imagination, teachers can be more intentional with their

questions. In knowing that providing space after questions for students to think and imagine and *then* answer is valuable, teachers can leave space. In knowing that the physical-space *and* time (as space) afford opportunities to imagine and therefore increase the amount of educative experiences during the school day, teachers can be more intentional about providing such space.

Further Curiosities and Research

Within the space I provided myself throughout this exploration, I found new curiosities about imagination that I hope to explore further. There were many moments throughout my observations when I noticed students being asked to recall information that was not present to their senses. This knowledge sometimes came out accurately and other times less so. Often, this request for recalling information was in reference to a prior experience. However, if we consider the ways in which we all experience every moment so vastly differently from one another due to our knowledge, beliefs, interests, etc. and how some aspects of each of these moments are imaginative - does that lead us to believe that these moments of recall are imaginative?

Another curiosity of mine is the difference between pretend and imagination. Copying is not imagination, nor does it require higher level thinking, yet is often what we see in schools. For example, during some of the videos, the students were asked to copy or imitate the voice, person, or character on the screen. They were asked to "pretend" that they were running through the field to find a bear, yet the field was up on the screen. I did not feel that this was imagination, and rather pretending and imitating. Another video asked the students to, "imagine and breathe as you paint the rainbow", yet what they were asked to be doing was occurring on the screen and therefore I found it to be a practice in following directions rather than imagining. "Going on a turkey hunt" would be considered as imagination if there was not a video and the images were

only in the minds of the students, rather than on a screen; yet a video eliminates imagination, no? Does it make a difference in the brain? What does neuroscience say?

Although I, and others, found ways to interpret imagination as a necessity in early childhood learning environments, it would take a longitudinal study to truly see whether opportunities to imagine as children develop into better skills of imagining when older. If improving imagination aligns with our ability to improve any other skills we acquire, then imagination would "improve" with practice. I personally used the term imagination capital throughout my inquiry and defined it as, the collection and accumulation of the skills and experience one has to imagine possibilities, alternatives, or novel ideas, which are of value to one's own well-being or the value of a community, school, organization, business, etc. whether financially speaking or otherwise, for the sake of the study. I remain curious, as to the usefulness of this term, among other forms of capital which are heavily researched and discussed. Or could it be a vital piece of Human Capital? I believe that it is the opportunity to practice imagining and space provided to utilize our imagination which allows for one's ensuing ability to imagine and therefore, their potential imagination capital. It is this within this concept of Imagination Capital, where inequity can be witnessed and perhaps "measured" within a future longitudinal study. In theory, when young children are provided inequitable opportunities and space to imagine within the educational environment or school and their home environment, there is then an imbalance in "asset" accumulation (i.e. ability to imagine). This imbalance or inequity may affect that child's potential in later education, interpersonal relationships, and future jobs and something to be considered and further evaluated.

Limitations

Upon reflection and evaluation of this research project, there were limitations. I share them here for transparency, as well as for future exploration. The limitations are time and a need for convenience. In order to collect data during the school days, I knew that I needed to be absent from my jobs during that time period. This was a physical limitation and perceived time constraint; missing work is difficult for many reasons. Although I had originally hoped to spend time in three different schools to collect my data, I jumped at the opportunity when the first site I contacted offered three teachers. This made the organization of my life and the access to data much more manageable than at first planned. Along with being more accessible, it also felt like the right action to take due to my relationship with the school. The three teachers were kind enough to allow me into their classrooms for days at a time and I was appreciative. I am not sure if or how it would have changed the outcomes, yet I assume that having multiple, diverse, schools with differing curriculum would have made for a deeper exploration, maybe. This, however, creates opportunities for future research using the themes found in this research. How are provided space and open-ended questions conducive to imaginative moments in other schools, different from the school in this study?

Conclusion

Through this qualitative study using educational criticism, I explored imagination within early childhood education. I have learned that imagination is an underexplored area for many teachers, in both conversation and application. I have found that it is in the space provided by teachers where student imagination is shared. This space can be moments in time, opportunities for student choice and freedom, or supplies and objects which are open-ended. I have found that it is in asking questions, by teachers or peers, where students share imaginative thinking. These

questions, when open-ended, encourage higher level thinking and responding, and allow students the space to do this. I have also found that it is in the space provided after questions are asked where imagination is communicated and therefore present in those moments. This is all very significant in Early Childhood Education and beyond, and highlights aspects of education that need further discussion, exploration and implementation.

"Education has a very important role to play in making people imaginative and imagination in making people educated" (Takaya, 2004, p. 74). In providing space to involve or include student (and teacher) imagination or ask open-ended questions and provide space for thinking and sharing, we are filling that role Takaya speaks of. This does not require reinventing curriculum or a financial investment. This requires conversations and collaborative explorations into these ways in which we utilize education to "cultivate our capacity to imagine" and use our imagination to educate (Robinson, 2017, p. 129).

REFERENCES

Andrist, L., Chepp, V., Dean, P., & Miller, M. V. (2014). Toward a video pedagogy: A teaching typology with learning goals. *Teaching Sociology, 42*(3), 196-206. https://doi.org/10.1177/0092055X14524962

Bloom, E., & VanSlyke-Briggs, K. (2019). The demise of creativity in tomorrow's teachers. *Journal of Inquiry and Action in Education, 10*(2), 90.

Brooks, D. (2002, December). Light show of the mind. *The Atlantic Monthly*. https://www.theatlantic.com/magazine/archive/2002/12/light-shows-of-the-mind/302633/

Caiman, C., & Lundegard, I. (2017). Young children's imagination in science education and education for sustainability. *Cultural Studies of Science Education, 13*, 687-705.

Chunoo, V. S., Tevis, T., Guthrie, K. L., Norman, S., & Corces-Zimmerman, C. (2020). Evolution and revolution: Social justice and critical theory in leadership education research: Priority 2 of the national leadership education research agenda 2020–2025. *Journal of Leadership Studies, 14*(3), 45-49. https://doi.org/10.1002/jls.21713

Cobb, E. (1959). The ecology of imagination in childhood. *Daedalus, 88*, 537-548.

Comber, B., Woods, A., & Grant, H. (2022). Literacy and Imagination: Finding space in a crowded curriculum. *The Reading Teacher, 71*(1), 115-120.

Creswell, J. W. (2007). *Qualitative inquiry and research design: Choosing among five approaches* (2nd ed.). Sage Publications.

Dewey, J. (1938). *Logic, the theory of inquiry*. Henry Holt.

Dewey, J. (2004). *Democracy and education*. Dover Publications.

Egan, K. (1992). *Imagination in teaching and learning: Ages 8 to 15*. Routledge. https://doi.org/10.4324/9781315887654

Egan, K. (2005). *An imaginative approach to teaching.* Jossey-Bass.

Eisner, E. W. (1991). *The enlightened eye: Qualitative inquiry and the enhancement of educational practice*. Macmillan.

Eisner, E. W. (2002). *The educational imagination: On the design and evaluation of school programs* (3rd ed.). Merrill Prentice Hall.

Eisner, E. W. (2017). *The enlightened eye.* Teachers College Press.

Enciso, P. (2017). *Stories lost and found: Mobilizing imagination in literacy research and practice*. Sage.

Fauconnier, G., & Turner, M. (2002). *The way we think: Conceptual blending and the mind's hidden complexities.* Basic Books.

Fleer, M. (2013). Affective imagination in science education: Determining the emotional nature of scientific and technological learning of young children. *Research in Science Education (Australasian Science Education Research Association), 43*(5), 2085-2106. https://doi.org/10.1007/s11165-012-9344-8

Gardner, K. (2019). *Screen time: Schools, parents ask how much is too much?* https://unco.idm.oclc.org/login?url=https://www.proquest.com/wire-feeds/screen-time-schools-parents-ask-how-much-is-too/docview/2240627841/se-2

Giroux, H. A. (2014). When schools become dead zones of the imagination: A critical pedagogy manifesto. *Policy Futures in Education, 12*(4), 491-499.

Glesne, C. (2016). *Becoming qualitative researchers: An introduction* (5th ed.). Pearson.

Gotlieb, R., Hyde, E., Immordino-Yang, M. H., & Kaufman, S. B. (2016). Cultivating the social–emotional imagination in gifted education: insights from educational neuroscience. *Annals of the New York Academy of Sciences, 1377*, 22-31.

Greene, M. (1995). *Releasing the imagination*. Jossey-Bass.

Griffiths, R. (1935). *A study of imagination in early childhood: And its function in mental development.* Routledge.

Gulla, A., Fairbank, H., & Noonan, S. (2020). *Imagination, inquiry, & voice: A Deweyan approach to education in a 21st century urban high school*. Sense Publishers.

Gundogan, A. (2019). SCAMPER: Improving creative imagination of young children. *Creativity Studies*, *12*(2), 315-326.

Harrison, C. A. (2012). *the impact of the standards movement on creativity and imagination as perceived by fine arts teachers* (Order No. 3499733). https://unco.idm.oclc.org/login?url=https://www.proquest.com/dissertations-theses/impact-standards-movement-on-creativity/docview/954970317/se-2

Heath, G. (2008). Exploring the imagination to establish frameworks for learning. *Studies Philosophy and Education*, *27*(2), 115-123. https://doi.org/10.1007/s11217-007-9094-7

Hedegaard, M. (2016). Imagination and emotion in children's play: A cultural-historical approach. *International Research in Early Childhood Education, 7*(2), 59.

Holmes, A. G. D. (2020). Researcher positionality: A consideration of its influence and place in qualitative research—A new researcher guide. S*hanlax International Journal of Education, 8*(4), *1-10.*

Jones, R., Clarkson, A., Congram, S., & Stratton, N. (2008). *Education and imagination: Post-Jungian perspectives*. Routledge.

Judson, G. (2023). Cultivating leadership imagination with cognitive tools: An imagination focused approach to leadership education. *Journal of Research on Leadership Education, 18*(1), 40-62. https://doi.org/10.1177/19427751211022028

Kochanowski, L. (2022). *What does the physical environment reveal about expert preschool teachers' pedagogical values? An educational criticism* [Unpublished doctoral dissertation], The University of Cincinnati.

Leonard, T., & Willis, P. (2008). *Pedagogies of the imagination: Mythopoetic curriculum in education.* Springer Dordrecht.

Lieberman, G., & Hoody, L. (1998). *Closing the achievement gap: Using the environment as an integrating context for learning. executive summary*. State Education and Environment Roundtable.

Liu, E., & Noppe-Brandon, S. (2009). *Imagination first: Unlocking the power of possibility.* Jossey-Bass Books.

Magid, R. W., Sheskin, M., & Schulz, L. E. (2015). Imagination and the generation of new ideas. *Cognitive Development, 34*, 99-110.

Maier, J. R. A., Fadel, G. M., & Battisto, D. G. (2009). An affordance-based approach to architectural theory, design, and practice. *Design Studies, 30*(4), 393-414. https://doi.org/10.1016/j.destud.2009.01.002

Maksic, S., & Pavlovic, Z. (2008). Serbian public opinion on child imagination and its correlates. *Institute for Educational Research, 40*, 7-21.

Mayes, L. C., & Cohen, D. J. (1992). The development of a capacity for imagination in early childhood. *The Psychoanalytic Study of the Child*, *47*(1), 23-47. https://doi.org/10.1080/00797308.1992.11822663

McConeghey, H. (1994). The ecology of imagination: The ecology of imagination in childhood by Edith Cobb. *Arts Education Policy Review*, *95*(5), 9.

McConnell, C., Conrad, B., & Strong, E. (2023). *Imagination in research* (Paper Presentation). American Association of Teaching & Curriculum

Merriam, S. B., & Tisdell, E. J. (2016). *Qualitative research: A guide to design and implementation* (4th ed.). Jossey-Bass.

Modell, A. H., Poland, J., & Radden, J. (2003). *Imagination and the meaningful brain.* MIT Press.

Naylor, L. (2021). *Views from an imagination: Preschooler's experiences with their imagination*. University of Northern Colorado.

Osborn, A. (2011). *Your creative power.* Read Books Ltd.

Phillips, R. (2014). Space for curiosity. *Progress in Human Geography*, *38*(4), 493-512. https://doi.org/10.1177/0309132513506271

Pratt, C. (2014). *I learn from children.* Grove Press. (Original work Published 1948)

Ravitch, S. M., & Riggan, M. (2017). *Reason & rigor: How conceptual frameworks guide research* (2nd ed.). Sage Publications.

Robinson, K. (2017). *Out of our minds: The power of being creative.* John Wiley & Sons.

Rowe, M. L., Leech, K. A., & Cabrera, N. (2017). Going beyond input quantity: Wh-questions matter for toddlers' language and cognitive development. *Cognitive Science*, *41*(S1), 162-179. https://doi.org/10.1111/cogs.12349

Shah, P., Weeks, H., Richards, B., & Kaciroti, N. (2017). *Early childhood curiosity and kindergarten reading and math academic achievement*. Springer Nature.

Shank, P. (2015). *The nature of imagination in pedagogy: A qualitative study of an elementary school setting* [Doctoral dissertation, University of Denver]. https://digitalcommons.du.edu/etd/1082/

Shenton, A. K. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education for Information, 22*(2), 63-75. https://doi.org/10.3233/EFI-2004-22201

Shuffelton, A. B. (2012). Rousseau's imaginary friend: Childhood, play, and suspicion of the imagination in Emile. *Educational Theory, 62,* 305-321.

Singer, D. G., & Jerome, L. (2005). *Imagination and play in the electronic age.* Harvard University Press.

State Education and Environment Roundtable. (n.d.). *The EIC model*. http://www.seer.org/index.html

Takaya, K. (2004). *On connections between imagination and education: philosophical and pedagogical perspectives* [Doctoral Dissertation, Simon Fraser University]

Takaya, K. (2017). Caroline Pratt's idea of curriculum and imagination. *Interchange, 49,* 205-216.

Taylor, M. (2013). *The Oxford handbook of the development of imagination* (1st ed.). Oxford University Press. https://doi.org/10.1093/oxfordhb/9780195395761.001.0001

Thakral, P., Yang, A., Addis, D., & Schacter, D. (2021). Divergent thinking and constructing future events: Dissociating old from new ideas. *Memory, 29*(6), 729-743: 10.1080/09658211.2021.1940205.

Townes, E. M. (2016). Teaching and the imagination. *Religious Education, 111*(4), 366-379.

Uhrmacher, P. B., Moroye, C. M., & Flinders, D. J. (2017). *Using educational criticism and connoisseurship for qualitative research*. Routledge, Taylor & Francis Group.

Verschuur, R., Huskens, B., Verhoeven, L., & Didden, R. (2017). Increasing opportunities for question-asking in school-aged children with autism spectrum disorder: effectiveness of staff training in pivotal response treatment. *Journal of Autism and Developmental Disorders, 47*(2), 490-505. https://doi.org/10.1007/s10803-016-2966-3

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

Walsh, R. L., & Hodge, K. A. (2018). Are we asking the right questions? an analysis of research on the effect of teachers' questioning on children's language during shared book reading with young children. *Journal of Early Childhood Literacy, 18*(2), 264-294. https://doi.org/10.1177/1468798416659124

Wasik, B. A., & Hindman, A. H. (2018). Why wait? The importance of wait time in developing young students' language and vocabulary skills. *The Reading Teacher, 72*(3), 369–378. http://www.jstor.org/stable/26632699

Weick, K. E. (2006). The role of imagination in the organizing of knowledge. *European Journal of Information System, 15*(5), 446-452.

White, M. H. (1993). Imagination in learning: Learning to imagine. *Early Child Development and Care, 90*, 99-111.

Wiseman, A. (2011). Interactive read alouds: Teachers and students constructing knowledge and literacy together. *Early Childhood Education Journal*, *38*(6), 431–438.

Yonzon, K., Fleer, M., & Fragkiadaki, G. (2022). The role of props in promoting imagination during toddlerhood. *International Journal of Early Childhood. 55*, 223–240.

Zucker, T. A., Cabell, S. Q., Justice, L. M., Pentimonti, J. M., & Kaderavek, J. N. (2013). The role of frequent, interactive prekindergarten shared reading in the longitudinal development of language and literacy skills. *Developmental Psychology, 49*(8), 1425-1439. https://doi.org/10.1037/a0030347

APPENDIX A

RECRUITMENT LETTER

Recruitment Letter

Dear Educator,

As a doctoral student in the Education Studies Department at the University of Northern Colorado, looking to contribute to the body of research on Imagination and complete my dissertation, I seek your involvement. I am writing to invite you to participate in my research exploring the imagination in Early Childhood Education. You are eligible to be in this study because you are an Early Childhood Education teacher in the United States.

If you decide to participate in this study, you will be asked to complete (via google forms) a short set of questions in regards to your and your students demographics prior to a 60-minute interview (virtual or in person). This interview will be recorded and will be transcribed for further exploration. Then, upon permission from all necessary sources, I will observe your classroom environment for a total of 25 hours during regularly scheduled activities. I may also contact you for a thirty-minute follow-up interview to clarify information and/or confirm transcript accuracy. As a participant, you will have access to read the final report of the study.

Participation in this study is completely voluntary. If you would like to participate, or have any questions about the study, please email or call me.

With Gratitude,

Leah Naylor, MA, Doctoral Student; leahcnaylor@gmail.com

APPENDIX B

ADMINISTRATOR PERMISSION

UNIVERSITY OF
NORTHERN COLORADO

Administrator Permission

Study Title: Exploring Imagination Within Early Childhood Education

Researcher: Leah Naylor, MA, Doctoral Student; leahcnaylor@gmail.com

Dissertation Advisor: Christine McConnell, Ph.D., Educational Studies; christine.mcconnell@unco.edu

Purpose and Description: The purpose of this Qualitative study, using Education Criticism, is to understand how teachers incorporate, utilize, and provide space for the imagination in Early Childhood Education learning environments.

One classroom environment and the corresponding teacher are needed for this study. The teacher will be asked to participate in one sixty-minute interview, prior to data collection, when they will be invited to share their experiences, thoughts and feelings around the process of imagination within their intentions, curriculum, and pedagogy. This interview will be recorded and transcribed to uncover and analyze themes around the use of and space provided for imagination with intentions to find answers to my research questions. The classroom environment will be observed, with as little observer (me) participation as possible as to not disrupt the learning environment, for a total of 16 hours within a two week period. A final follow-up interview will occur with the teacher participant in order to review, confirm, and clarify collected data. To maintain confidentiality, the teachers will be assigned pseudonyms and the interview transcripts will be kept in a secure document on my computer, labeled with this pseudonym. The school will also have a pseudonym in order to protect the identity.

_____
(Administrator's Initials)

If you agree to allow a teacher to participate in this research study, the following will occur:

- You will be asked basic demographic information of your students.
- I will be present in your school for two full weeks as I collect data.
- I may contact you for a follow-up interview to clarify information and/or confirm accuracy.
- You will have access to the final dissertation.

Risks or Discomforts: There are no foreseeable risks. If you feel any discomfort, you are more than welcome to discontinue the research, if necessary.

Benefits: Interviews may result in personal and professional awareness of imagination in the Dimensions of Intentions, Curriculum, and Pedagogy, as well as adding to the field of knowledge in this area.

Costs: The costs for this study will be the *time* given for the interviews, which will include: one 60 minute initial interview; access to observe the occurrences of the classroom environment; and one 60 minute follow-up interview.

Questions: If you have any questions about the study, you may contact me by email or phone. You may also contact the dissertation advisor, Dr. Christine McConnell, by phone or email.

Participation is voluntary. You may decide not to participate in this study and if you begin participation you may still decide to stop and withdraw at any time. Your decision will be respected and will not result in loss of benefits to which you are otherwise entitled. You may keep this form for future reference. If you have any concerns about your selection or treatment as a research participant, please contact Nicole Morse, Research Compliance Manager, Office of Research, Kepner Hall, University of Northern Colorado Greeley, CO 80639; 970-351-1910.

Administrator's Signature

_____**Date**_____

Researcher's Signature

_____**Date**_____

APPENDIX C

SCHOOL DEMOGRAPHICS

School Demographics

1. What grades or ages of children does your school serve?
2. Is your school a public, private, charter, or independent school?
3. Who does your school serve (ie. the neighborhood, many districts, etc)?
4. How many students attend your school? How many teachers are employed?
5. What is the ethnic and socioeconomic make-up of your student population? Teacher population?
6. What are the teacher qualifications?
7. What is your average class size?
8. What is any other information about your school that you would like to share, which may be helpful for my research?

APPENDIX D

INFORMED CONSENT

UNIVERSITY OF
NORTHERN COLORADO

Informed Consent Form for Teacher Participants

Study Title: Exploring Imagination Within Early Childhood Education

Researcher: Leah Naylor, MA, Doctoral Student; leahcnaylor@gmail.com

Dissertation Advisor: Christine McConnell, Ph.D., Educational Studies; christine.mcconnell@unco.edu

Purpose and Description: The purpose of this Qualitative study using Education Criticism is to understand how teachers incorporate, utilize, and provide space for the imagination in Early Childhood Education learning environments.

Through participating in one sixty-minute interview, prior to data collection, you will be invited to share your experiences, thoughts and feelings around the process of imagination in your belief system or intentions, curriculum, and pedagogy. This interview will be recorded and transcribed to uncover and analyze themes around the use of and space provided for imagination with intentions to find answers to my research questions. I will then observe within the classroom for two weeks for a total of 16 hours and take photographs of any pertinent artifact. We will engage in one sixty-minute interview as the observations conclude in order to review, clarify, and confirm the accuracy of collected data. To maintain confidentiality, you will be assigned pseudonyms and the interview transcripts will be kept in a secure document on my computer, labeled with this pseudonym.

_____
(Participant's Initials)

If you agree to participate in this research study, the following will occur:

- You will be asked demographic information such as age, position, years in the field and basic demographics of your students.
- You will be asked questions about imagination during a 60-minute interview.
- You will engage in a follow-up interview to clarify information and/or confirm transcript accuracy.
- You will have access to the final dissertation.

Risks or Discomforts: There are no foreseeable risks. If you feel any discomfort, you are more than welcome to not answer any questions or discontinue the interview if necessary.

Benefits: Interviews may result in personal and professional awareness of imagination in the Dimensions of Intentions, Curriculum, and Pedagogy, as well as adding to the field of knowledge in this area.

Costs: The costs for this study will be the *time* given for the interviews, which will include: a 60 minute interview; a brief follow-up interview; a pre-interview demographic questionnaire; a post-interview for transcript verification.

Questions: If you have any questions about the study, you may contact me by email or phone. You may also contact the dissertation advisor, Dr. Christine McConnell, by phone or email.

Participation is voluntary. You may decide not to participate in this study and if you begin participation you may still decide to stop and withdraw at any time. Your decision will be respected and will not result in loss of benefits to which you are otherwise entitled. You may keep this form for future reference. If you have any concerns about your selection or treatment as a research participant, please contact Nicole Morse, Research Compliance Manager, Office of Research, Kepner Hall, University of Northern Colorado Greeley, CO 80639; 970-351-1910.

Participant's Signature

_____**Date**_____

Researcher's Signature

_____**Date**_____

APPENDIX E

PARENT LETTER

Notification of Research

Dear Parents or Guardians,

As a doctoral student in the Education Studies Department at the University of Northern Colorado, looking to contribute to the body of research on Imagination and complete my dissertation, I seek a learning environment to observe. I am writing to inform you of my research exploring the imagination in Early Childhood Education. Your child's teacher has agreed to participate in this research and I will be observing the regularly scheduled learning activities for a brief period of time in order to learn. I will not interfere in any way with your child's learning environment and their identity or participation in classroom activities will not be exposed in any way through this research. The final report will be open to the public as my Doctoral Dissertation and you will have full access to read the final report of the study if you so choose.

If you have any questions about the study, please email or call me.

With Gratitude,

Leah Naylor, MA, Doctoral Student
leahcnaylor@gmail.com

APPENDIX F

TEACHER PARTICIPANT DEMOGRAPHIC QUESTIONS

UNIVERSITY OF
NORTHERN COLORADO

Teacher Participant Demographic Questions

1. What is your age?
2. Please list your preferred pronouns:
3. What are the race(s) and ethnicities you identify as?
4. What is your current position in the school?
5. How long have you been in this role?
6. How long have you worked in education?
7. How would you describe the demographics of your school community?

Interview Questions

1. How would you define imagination?
2. How do you presently utilize the imagination in your early childhood education classrooms?
3. How do your students presently utilize their imagination in the learning environment?
4. In your opinion, how might a child's opportunity to imagine inform their experience in/of school?
5. In your opinion, is there an equitable opportunity to imagine for all children? What are the implications of an inequitable opportunity to imagine?

APPENDIX G

INSTITUTIONAL REVIEW BOARD APPROVAL

UNIVERSITY OF
NORTHERN COLORADO

Institutional Review Board

Date:	09/27/2023
Principal Investigator:	Leah Naylor
Committee Action:	**IRB EXEMPT DETERMINATION – New Protocol**
Action Date:	09/27/2023
Protocol Number:	2308051584
Protocol Title:	EXPLORING IMAGINATION WITHIN EARLY CHILDHOOD EDUCATION
Expiration Date:	

The University of Northern Colorado Institutional Review Board has reviewed your protocol and determined your project to be exempt under 45 CFR 46.104(d)(701) (702) for research involving

Category 1 (2018): RESEARCH CONDUCTED IN EDUCATIONAL SETTINGS. Research, conducted in established or commonly accepted educational settings, that specifically involves normal educational practices that are not likely to adversely impact students' opportunity to learn required educational content or the assessment of educators who provide instruction. This includes most research on regular and special education instructional strategies, and research on the effectiveness of or the comparison among instructional techniques, curricula, or classroom management methods.

Category 2 (2018): EDUCATIONAL TESTS, SURVEYS, INTERVIEWS, OR OBSERVATIONS OF PUBLIC BEHAVIOR. Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording) if at least one of the following criteria is met: (i) The information obtained is recorded by the investigator in such a manner that the identity of the human subjects cannot readily be ascertained, directly or through identifiers linked to the subjects; (ii) Any disclosure of the human subjects' responses outside the research would not reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, educational advancement, or reputation; or (iii) The information obtained is recorded by the investigator in such a manner that the identity of the human subjects can readily be ascertained, directly or through identifiers linked to the subjects, and an IRB conducts a limited IRB review to make the determination required by 45 CFR 46.111(a)(7).

Carter Hall 2008 | Campus Box 143 | Greeley, CO 80639 | Office 970-702-5427

UNIVERSITY OF
NORTHERN COLORADO

Institutional Review Board

You may begin conducting your research as outlined in your protocol. Your study does not require further review from the IRB, unless changes need to be made to your approved protocol.

As the Principal Investigator (PI), you are still responsible for contacting the UNC IRB office if and when:

- You wish to deviate from the described protocol and would like to formally submit a modification request. Prior IRB approval must be obtained before any changes can be implemented (except to eliminate an immediate hazard to research participants).
- You make changes to the research personnel working on this study (add or drop research staff on this protocol).
- At the end of the study or before you leave The University of Northern Colorado and are no longer a student or employee, to request your protocol be closed. *You cannot continue to reference UNC on any documents (including the informed consent form) or conduct the study under the auspices of UNC if you are no longer a student/employee of this university.
- You have received or have been made aware of any complaints, problems, or adverse events that are related or possibly related to participation in the research.

If you have any questions, please contact the Interim IRB Administrator, Chris Saxton, at 970-702-5427 or via e-mail at chris.saxton@unco.edu. Additional information concerning the requirements for the protection of human subjects may be found at the Office of Human Research Protection website - http://hhs.gov/ohrp/ and https://www.unco.edu/research/research-integrity-and-compliance/institutional-review-board/.

Sincerely,
Michael Aldridge
Interim IRB Administrator

University of Northern Colorado: FWA00000784

2308-1184

APPENDIX H

DATA COLLECTION TIMETABLE

	Teacher Interview	Observations & Artifact Collection	Focused Analysis
Mrs. B	Week of October 25, 1 hour Week of November 20, 1 hour	Monday 10/30, 8:15-3:15 7 Tuesday 10/31, 12:45-3:15 2.5 Wednesday 11/1, 8:15-1:45 5.5 Monday 11/13, 9:15-12:15 3	October 25-Nov 22 Continual
TK	Week of October 25, 1 hour Week of November 20, 1 hour	Thursday 11/2, 8:00-12:00 4 Friday 11/3, 8:15-3:15 7 Thursday 11/9, 8:00-12:00 4 Monday 11/13, 12:15-3:15 3	October 25-Nov 22 Continual
Ashley Hastings	Week of October 25, 1 hour Week of November 20, 1 hour	Monday 11/6, 8:15-3:15 7 Tuesday 11/7, 11:15-3:15 4 Wednesday 11/8, 8:00-11:00 3 Monday 11/13, 8:15-9:15 1 Tuesday 11/14, 12:15-3:15 3	October 25-Nov 22 Continual