12-16-2023

Bridging the Gaps: Listening to Early Education Leaders as Minnesota Public School Districts Work to Align their Pre-K and K-12 Systems

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A Dissertation

SUBMITTED TO THE FACULTY OF
CONCORDIA UNIVERSITY, ST. PAUL BY

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December 13, 2023

Acknowledgements

Leap, and the net will appear. ~John Burroughs

There were many nets that appeared not only through this journey of earning my degree but also in my journey to becoming an educational leader. I want to acknowledge those human safety nets here. First and foremost is my former supervisor and current Dissertation Chair, Dr. Jana Hennen-Burr. As we worked together during her final years before she retired as assistant superintendent, she taught me that my introversion was not a weakness, but rather a strength. And when she called me one of her "Quiet Giants," I was so proud and humbled because I knew that she put me in a special category with other district leaders who I held in high regard. She taught me to use my quiet strength to listen, reflect, and then act with compassion, dignity, and grace. Every day that I worked with her, she modeled these leadership skills, which are not immediately recognized by those who talk loudly and move fast. But when the skills of being quiet and fully present are used, the person's strength and might are shining bright. "Never assume loud is strong and quiet is weak" (unknown quote).

Human nets of expertise also came to my aid when writing this dissertation. I work with Dr. Deanna Chiodo, one of my committee members. We became principals the same year, the school year that Covid-19 rocked our world and school system. I will always share a special bond with Deanna because of this. For at least the first three years of our principalships, we did not know being a principal involved anything other than working through the chaos of Covid. Another expertise net, Dr. John Braun, taught me so much with his advice through the dissertation process. And my editor, Dr. Sondra Schroeder-Davis, has done much more than just fixing my APA formatting. Through her comments and suggestions, this paper is much stronger than I could ever have imagined.

I would also like to acknowledge the early education leaders who took part in my study, as well as Kristen Nelson, the early education manager in my district. These leaders are so committed to the wellbeing of children and the importance of families. They know and live by the mantra that a child's family is that child's first teacher. I was in awe of what these leaders do as they juggle the various responsibilities of their roles and tackle moving targets of funding sources through grants, legislations, and enrollment. While working, learning, and teaching with Kristen I have learned so much about early education. And to think, Kristen's and my collaboration started with a simple car ride to a job fair.

Finally, I want to thank my husband, Wade Willman, without whom none of this would have been possible. From our initial conversation about starting the doctorate program— "You want to do *what*?"—to him whispering in my ear, "Stick with it. You're almost there," his unwavering confidence in me and dedicated support made this degree a reality.

My leadership tagline seems to fit for this supportive net that has held me up the last three and a half years: "Together, We've Got This!"

Dedication

To my favorite M&M's, my daughter MacKenzie and son Max, both of whom taught me first-hand the importance of early education. Each child needed preschool for very different reasons, and each grew and thrived in that loving and supportive environment. I am blessed to be the mother to these two amazing teenagers who teach me something new every day.

Abstract

This qualitative study employed a grounded-theory approach to examine how Minnesota public schools align their pre-K to their K-12 systems. One-time, on-line interviews with eight early education leaders probed their districts' catalyst for aligning the systems, how they continued the work after it was initiated, what successes and challenges they encountered, and their recommendations for other districts planning to do such alignment. Data were gathered using the built-in video-recording option in Google Meet, which also created closed captions and a printed transcript of the information. The resulting data were then analyzed via ATLAS.ti using eight main categories derived from Kauerz and Coffman's (2019) *Framework for Planning, Implementing, and Evaluating P-3 Approaches*. Many themes surfaced from the analysis of the data. The first being that transitioning students and families to kindergarten was an easy and natural place to start for many districts. The importance of funding and the value of state-based initiatives to stimulate district change were also clear, leadership-related themes. District leadership needs to have a vision and commitment to the work, which opens collaboration between departments. Districts experienced the most challenges in the areas of the complex funding streams of early childhood, as well as turnover of learning spaces. The overarching theme that emerged was the critical role of leadership. The results of this study suggest that the superintendent must ensure that early education is held as an integral part of an entire E-12 district.

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Introduction: My Why

As a new principal in an early education (pre-K; ages 3-4 years) to Grade 2 building, I was excited to be the educational leader serving 3- through 8-year-old learners and their families. I soon learned, however, that my responsibility for students and staff in the early education program was limited to safety issues, including fire drills, tornado drills, and overall building security. A district-wide coordinator oversaw the other key administrative responsibilities in the five early education sites across the district. The coordinator's role included hiring personnel, implementing curriculum, administering assessments, assisting families, and managing behaviors.

As the elementary principal, I knew safety for the pre-K program was important; however, I became disillusioned with this model. As I observed the efforts of the early education manager, the district-wide teaching and learning team, district-level leadership, principals, and teachers, there seemed a critical disconnect between the pre-K and K-12 systems regarding pedagogy, communication, curriculum, assessments, and staff development. This divide affected, among other things, our foundational learners, the students who were in pre-K to Grade 3. What needed to be added was an effective framework providing a continuous and aligned pre-K to Grade 3 educational program of learning for students, families, and staff.

Instead of a coordinated approach, I found the early education programs and their operations fundamentally siloed from the elementary school programs and operations. Leaders, teachers, families, and students needed more interaction with one another. I also discovered an immense gap in how each of those stakeholders understood the roles and responsibilities the others played and held in the education of young children. These discoveries troubled me. While

it is often difficult to bring disparate groups together, at least my building staff were under one roof. Still, even under one roof, the pre-K and elementary-level teachers acted independently of one another, even though the preschool children would one day be kindergarteners in the elementary school. In my mind, a fundamental question arose: Why are the early education and elementary teachers and programs not working together? As I began my initial questioning, I found that my district was not unique in this disconnected model.

Minnesota is a state with persistent and significant academic gaps as measured by race and socioeconomic status (Grunewald & Nath, 2019). The Minnesota Legislature has attempted to address this gap through state statute 120B.11, World's Best Workforce (WBWF; Minnesota Legislature & Office of the Revisor of Statutes, n.d.-b). Two of the five goals of the WBWF statute directly address what is happening in the primary years of students' schooling, specifically, the goals "All children are ready for school," and "All third-graders can read at grade level," while a third goal, "All racial and economic achievement gaps between students are closed," is embedded and expected from the primary level to Grade 12 (Minnesota Department of Education [MDE], n.d.-d).

As I further explored the topic of alignment, I found that many districts across the country had started doing the work of bridging the gap between pre-K and primary elementary grades due to issues involving equity (Bardige et al., 2018; Kauerz et al., 2021; Marietta, 2010; Nyhan, 2015; Ritchie & Gutmann, 2014; Takanishi, 2016). These districts wanted to ensure all students in the years before kindergarten had an opportunity to access formal education. Otherwise, "access to programs is highly dependent on private family resources at a time of worsening economic inequality" (Takanishi, 2016, p. 29). In my opinion, enrollment in pre-K programs should not be dependent on a family's economic situation. Instead, it should be

universal for all families that choose to take advantage of public education. In addition, each district should enable the students of all families to have a smooth, effective, and efficient transition from early education to kindergarten.

In Minnesota, as of the year 2023, kindergarten is not required (Minnesota Legislature & Office of the Revisor of Statutes, n.d.-a). This lack of legislation sets the stage for inequality issues from the start of a child's education, because if kindergarten is not seen as important enough for the state to mandate from a lawmaker point of view, pre-K may be viewed by parents, communities, and districts as an "extra" service rather than a crucial first step and so may be accessed only by those with the means to afford the apparent "luxury." This underemphasis also creates a vulnerable situation for the pre-K system regarding funding. According to *The State of Preschool 2021* (Rutgers Graduate School of Education [RGSE], 2021), the most recently published state preschool yearbook, there is wide discrepancy across the nation in the state-funded preschool enrollment rate for children 3- to 5-years-old. Preschool enrollment in the nation ranges from a high of 74% of all eligible students in the District of Columbia to 0% in six states. In Minnesota, the enrollment rate is 6% (RGSE, 2021).

Consider how children's learning trajectories might be different if kindergarten at age 5 was "the beginning of states' compulsory education system . . . Such state action would provide a framework for funding pre-K and kindergarten programs as part of the state education system" (Takanishi, 2016, p. 33). According to the National Preschool Learning Activities Survey (Barnett & Jung, 2023), in 2020-21, 70% of families with a household income less than $25,000 would have enrolled their child if a "free, high quality preschool program had been available in Fall 2021" (p. 11), and 59% of families with a household income of $25,000 or above would

have enrolled their child. All children, no matter the neighborhood they live in or their family's income, should have the opportunity to enter school on a level playing field.

In Minnesota, there are scholarships and sliding fee scales based on income available to help families pay for preschool; however, in many cases, it is still up to the family to pay the cost of preschool (MDE, n.d.-b). In addition to registration fees and transportation costs, since many preschool programs are either half-day or a few days a week, the family also may have to continue to pay for daycare, even when the child is not in attendance. This payment allows a family to hold their child's daycare spot on days there is no preschool or for the half-day they are not in preschool.

This situation happened in my family. Since my husband and I both worked full-time, and our combined salary was low—but not low enough to qualify for any kind of assistance—we had to pay for both preschool and daycare for our two young children. For my husband and me, this was a great financial hit, but one we were willing and able to accommodate for the education of our children. During that period in our lives, we continually asked both the school district and our daycare provider for extensions on our bills so we could spread out the payments, in effect paying smaller amounts over a longer period. This created a financial burden not only during those pre-K years but for a few years to follow as we caught up on our financial obligations.

For my husband and me, it meant no extra funds at the end of the month and constantly worrying about money. However, for many families, that financial demand might mean the difference between having food and shelter or going without. For those families, pre-K is not even an option. No family should have to choose between educating their child and the necessities for survival.

Elected officials have tried to pass legislation to make significant changes for children and families. For example, President Biden's Build Back Better proposal offered universal and free preschool for all 3- and 4-year-olds. The bill passed in the House in November of 2021, but the smaller iteration of the proposal that did eventually pass Congress did not include childcare (Kashen, 2022). Similarly, in 2015, Minnesota Governor Dayton tried but failed to pass Preschool for All legislation to offer "free, voluntary, half-day early learning programs for every 4-year-old" (Minnesota Government, 2015, para. 1).

There is hope. Prior to the COVID-19 pandemic, six states—Florida, Iowa, Oklahoma, Vermont, West Virginia, and Wisconsin—and Washington DC were serving at least 70% of their populations of 4-year-olds (RGSE, 2021). In addition, Georgia, Maine, New York, and California had committed to universal preschool for 4-year-olds (RGSE, 2021).

Since the majority of funding for preschool currently is not coming from the federal or state governments, responsibility for promoting and funding education for our youngest learners then falls on school districts, which is expensive and creates the need for operational changes. As Takanishi (2016) explained:

> Not only must public education in the United States begin earlier during the pre-K years, but early learning or pre-K programs must also be integrated with the following grades of kindergarten and beyond to create a firm and continuing foundation for lifelong learning. (p. 10)

While many districts nationally do not promote pre-K programming (RGSE, 2021), it is with great urgency that other districts are offering all families the opportunity for their children to attend full-day, full-week preschool starting at age 3 years. Many large urban districts, like those in Boston, San Francisco, Denver, Montgomery County in Massachusetts, and Seattle have made

educating their 3- and 4-year-olds a priority (Bardige et al., 2018; Kauerz et al., 2021; Marietta, 2010; Nyhan, 2015; Ritchie & Gutmann, 2014; Takanishi, 2016). Although not all families would make the choice to enroll their child that early, all children would have the opportunity to have an equitable start to their education, no matter the what the family's financial status. Creating such opportunities through school district efforts when state and federal governments cannot or will not allow both families and policymakers to view pre-K as an essential start of a child's education. Without the option of pre-K programming and mandatory kindergarten, a Minnesota child's school enrollment can be delayed until up to 7 years of age (Minnesota Legislature & Office of the Revisor of Statutes, n.d.-a).

In my opinion, early education programming and services should be mandated and funded at the national and state government levels. However, my focus for this paper is on what local public-school districts should do for our earliest learners with funds and policies that are already in place. I believe this foundational work must be done immediately. Students of today would benefit from districts' immediate efforts. Further, if this district-level work were done concurrently with changes enacted by lobbyists and legislators, the students of tomorrow would continue to benefit, with the added advantage of equitable state policies and adequate funding.

Immediate changes at a district level could be made even without state support. My dissertation research focused on what we can do *now*, for our children *today*. Logically, if the achievement gap could be closed early in a child's school career, better outcomes for all students should result. According to Rolnick and Grunewald (2003),

> From birth until about 5 years old a child undergoes tremendous growth and change. If this period of life includes support for growth in cognition, language, motor skills,

> adaptive skills and social-emotional functioning, the child is more likely to succeed in school and later contribute to society. (p. 7)

If early education and elementary school educators worked together as a team rather than as separate entities, they might be able to take better advantage of this time of great development in a child's life. Together, districts and educators could make changes for the children in our schools today, while our legislative representatives work toward making schools more equitable for their future.

Problem of Practice

As an elementary principal, it has puzzled me that my public school district, like many others across Minnesota, has not taken full advantage of a growing, thriving, early education program already housed within the local school buildings and created an aligned, equitable system that spans the entire pre-K to Grade 12 scope. Failing to do so is analogous to high schools not talking to middle schools to find out what middle school students learn, how they are assessed, and what they have achieved academically. It is expected—and makes sense—that districts vertically align middle school and high school. Coincidentally, cooperation across levels also works toward the final two WBWF goals, "All students are ready for career and college," and "All students graduate from high school" (MDE, n.d.-d, para. 2). However, before WBWF legislation became a statute, and even if WBWF requirements ceased, there was and still would be vertical alignment in all subject areas between middle and high school; this ensures districts teach the state standards in all academic areas.

We do not treat our ninth-grade students as if they have no experience in school just because they have not yet been in high school, but this is how many districts treat incoming kindergarten students, even those coming from their own in-district pre-K program. I began to

ponder why many primary-grade staff (kindergarten to third grade) do not work closely with pre-K staff to ensure students are meeting and exceeding the WBWF goals: “All third-graders can read at grade level,” and “All children are ready for school” (MDE, n.d.-d, para. 2).

WBWF legislation requires school districts to develop a plan to demonstrate how they are designing and improving instruction and curriculum to meet the statutory requirements. The Grade 3 Minnesota Comprehensive Assessment (MCA) is one of many measures used to evaluate districts in their work toward meeting these goals. Third grade teachers cannot fulfill the relevant statutory requirements in isolation, just as Grade 12 teachers alone cannot ensure that “All students graduate from high school” (MDE, n.d.-d, para. 2). It takes an entire system to work together. Teachers in pre-K and teachers in Grades K-3 construct a strong, stable academic foundation upon which all other content can be built. Yet currently, the two are largely doing this as separate systems.

There is a “stubborn separation of early education and primary education in the United States” (Takanishi, 2016, p. 12). By not aligning the pre-K and K-3 systems, educators force children to “leap a pedagogical gulf at a critical period in their development” (Ritchie & Gutmann, 2014, p. 3). It is up to educators, the experts, to merge and integrate the two systems to provide a seamless transition for children.

Study Purpose

The purpose of my grounded theory study was to gain an understanding of how public-school districts in Minnesota have aligned their pre-K and K-12 systems to create collaborative, multisystemic change and develop a unified organization. Through interviews with staff in eight Minnesota school districts, I strived to identify the reasons they chose to go forward with

aligning pre-K and K-2 programs, what processes they used to implement the work, their successes, and challenges.

I believe, at the district level, educational leaders must guide their systems and staff as they navigate a web of political policies and mandates, all while still understanding and following current research in teaching and learning. Efforts to create alignment across educational levels cannot be left up to an individual teacher or building-level administrators. Simply, they do not have the authority. Through my dissertation research, I sought to add the voice of early education leaders to the research of alignment in creating strong pre-K and early elementary alignment.

Significance of the Study

Currently in the United States, the federal government has assigned the responsibility of public education to each individual state. In turn, Minnesota delegates primary control and power to individual school districts and their locally-elected school board members. Although the federal and state governments have much input—for example, when funding is tied to categorical aid or statewide academic standards—the actual organization and structure of a school district is in the hands of the district (Chen, 2022; MDE, n.d.-a; Strom, 2021).

Public pre-K programs in school districts can be found in two main settings: inside an elementary school, or at a stand-alone center (Little, 2020; Wilinski et al., 2021). Regardless of where a district locates its pre-K program, research (Kauerz et al., 2019) shows there are practices district leaders can follow to align their pre-K program to the K-12 system. Without such calibration, what can and *is* happening between the two systems in many districts is aptly described in Boyle and Wilkinson's (2018) study title, *Two Worlds, One Site*. Takanishi (2016) pushed the titular analogy further and described the two systems as *two galaxies*. Her

characterization “underscores the power of fixed mindsets about how we organize education for young children” (Takanishi, 2016, p. 12). Educational leaders need to recognize that young learners 3 to 8 years of age have more in common with one another in terms of cognitive, social, emotional, and behavioral needs than do children at other ages of development (Kauerz et al., 2021). Given these similarities, the staff within the two systems should be working and learning together about the latest research on executive function, self-regulation, pedagogy, curriculum, and assessments. It is up to the district leaders to make sure the systems are aligned.

It is my hope that the findings from my study will help educational leaders recognize and prioritize the foundational work of aligning pre-K, first, second, and third grade. Program alignment should afford children who are able to attend pre-K the opportunity to have a cohesive experience across the pre-K and elementary grades. It also should allow children who attend in the future, when universal pre-K is provided for all children, to have the same unified experience. My overall intent was that this research would provide a practitioner's vantage-point and suggest how change agents can navigate long-term, sustainable change.

Leadership Mission and Values

My dissertation project directly aligned with my leadership mission; *I am an Authentic Leader who collaborates with team members to use research-driven practices to educate, support, and develop all learners*. In education, just as teachers can no longer work in isolation, with their doors shut, so too leaders cannot close their office doors and make decisions without outside input. No longer are we schools of the 1900s, when educators could successfully predict the lives their students would live when they left the schoolhouse. Educators now are preparing students for jobs not yet in existence. We cannot do this alone.

Some of the most exciting times in my career have been when I was working with a team on a creative and innovative project or trying to solve a seemingly impossible problem. I love the rush from brainstorming with a trusted group of colleagues, the collaboration of talents and experiences, and creating something more wonderful than any of us could accomplish individually. Consequently, I chose *Together, We've Got This!* as my leadership tagline. The "this" in the tagline is intentionally ambiguous; it could refer to something as urgent and essential as navigating a year filled with Covid issues, or it could be collaborating with teachers and district leaders to create a unified system for primary students. Whatever challenge is on the table, we work together.

As I analyzed my values during the doctoral program—learning, contributing, honoring family, empowering authenticity—I recognized in my actions and reflections that my values are what help me prioritize my next steps. When things "do not feel right," I need to go back and wonder, *Am I learning? Am I making a difference? Is this benefiting or hurting not only my family but also the families I work for and with? Am I being real and genuine?* And if I am not answering these questions to my satisfaction, I need to lean in and figure out what is taking me away from my values and my mission.

To achieve my mission while respecting my values, I use the strategies of continuous improvement, problem solving, and collaboration through an equity lens. I worked toward my doctorate to further continuous improvement for my organization and for myself. I problem solve while collaborating with others by setting goals and seeking innovation. I always assume the answer to a problem is in the room; we just need to listen to and learn from one another. Most importantly, to achieve equity in education, we need to learn to communicate effectively; we need to communicate our experiences, needs, challenges, and celebrations.

Following my work to achieve my doctorate in education through Concordia University, St. Paul, I plan to use my leadership and scholarship skills to make a difference in the lives of children and the field of education.

Research Questions

My overarching research question for the following investigation was: How do public school districts in Minnesota align their pre-K system to their K-12 system to create collaborative, multisystemic change and develop a unified system? My research subquestions were:

1. What do school leaders describe as the catalyst(s) for aligning their district pre-K and K-12 systems?
2. How do public school leaders start and continue the work of aligning their pre-K and K-12 systems?
3. What are the greatest challenges for districts as they align their pre-K and K-12 systems?
4. What are the greatest successes for districts as they align their pre-K and K-12 systems?

Research Site/Context and Participants

My research topic lent itself to qualitative inquiry using a grounded theory approach. Grounded theory research "focuses on a process or an action that has distinct steps or phases that occur over time. . .. the researcher seeks, in the end, to develop a theory of this process or action" (Creswell & Poth, 2018, p. 82). I contacted the Department of Early Learning (DEL) at the MDE to help identify eight Minnesota public school districts that had implemented an aligned pre-K to Grade 3 system. The DEL supports the Prekindergarten through Grade Three (P3) Initiative and was an excellent resource for identifying districts that were doing this work throughout the state (MDE, n.d.-b).

I conducted semi-structured, 1-hour interviews with an appropriate staff member from within each identified school district via the online platform Google Meets, during which I asked open-ended questions about how they bridged their pre-K to Grade 3 systems. These interviews were recorded using the embedded Google Meet recording technology and later transcribed to allow coding for content analysis.

Since the enrollment size of a school district (small, medium, large) and its location (rural, suburban, city) drastically affects its human and financial resources, I reported the sizes and locations of the school districts but not their actual names to protect participant privacy and confidentiality. The variables of size and location, however, contributed to the emergent themes that resulted from the research.

From the participating districts, I identified the individuals who were responsible for leading the transition to an integrated pre-K to K-12 system or who oversaw the current integrated programming. Since the title of each individual in this position may be different, I was diligent in making sure I found participants whose roles and responsibilities for enabling district program alignment were comparable to ensure my data and conclusions were valid. Participant role/title were variables I analyzed carefully, since positions of employees may affect their authority on final decisions and their vantage point as well as their ability to see challenges and successes in the district. Participants voluntarily choose to dedicate time to this project through interviews and remain anonymous in this final dissertation report.

Overview of Previous Research

My literature review, presented in the next chapter, examined three scholarly bodies of information, and was structured based on Simon Sinek's (2010) model of the golden circle. Sinek explained that great leaders need to lead with *the why*, then shift to *the how*, and finally

move to *the what*. In my dissertation, the first subheading and body of literature review information, *Brain Development and Pedagogy of School Aged Children,* demonstrates the *why*—why appreciating brain development as it relates to pedagogy is important for the understanding of children and education. Transitions and unification between the early education world and the elementary world are vital; students' lifelong learning trajectory is optimized when educators follow the science of brain development for young learners.

The second body of information focuses on the components of an aligned system under a public-school district's control. This subsection, *Components of an Aligned Pre-K-3 System,* discusses how, in many ways, the pre-K and the K-12 systems are isolated and less functional than they might be. This section of the literature review was intended to reflect *the how* in Sinek's (2010) model. The scientific research emphasizes components of an aligned pre-K to Grade 3 program that would be beneficial for children, staff, and families.

The third part of the literature review, *Systemic Change* and *Systemic Collaboration,* examines what researchers say about how leaders make decisions and work with staff to achieve change. This final section of the paper relates to *the what* in Sinek's (2010) model, the end that is sought, which in this case is functional integration across educational levels.

From my research, I found there were no practitioners researching how to make changes within the public school system by aligning a pre-K system to the K-12 system using the lens of early education leaders. My research was designed to contribute to filling this gap in the literature.

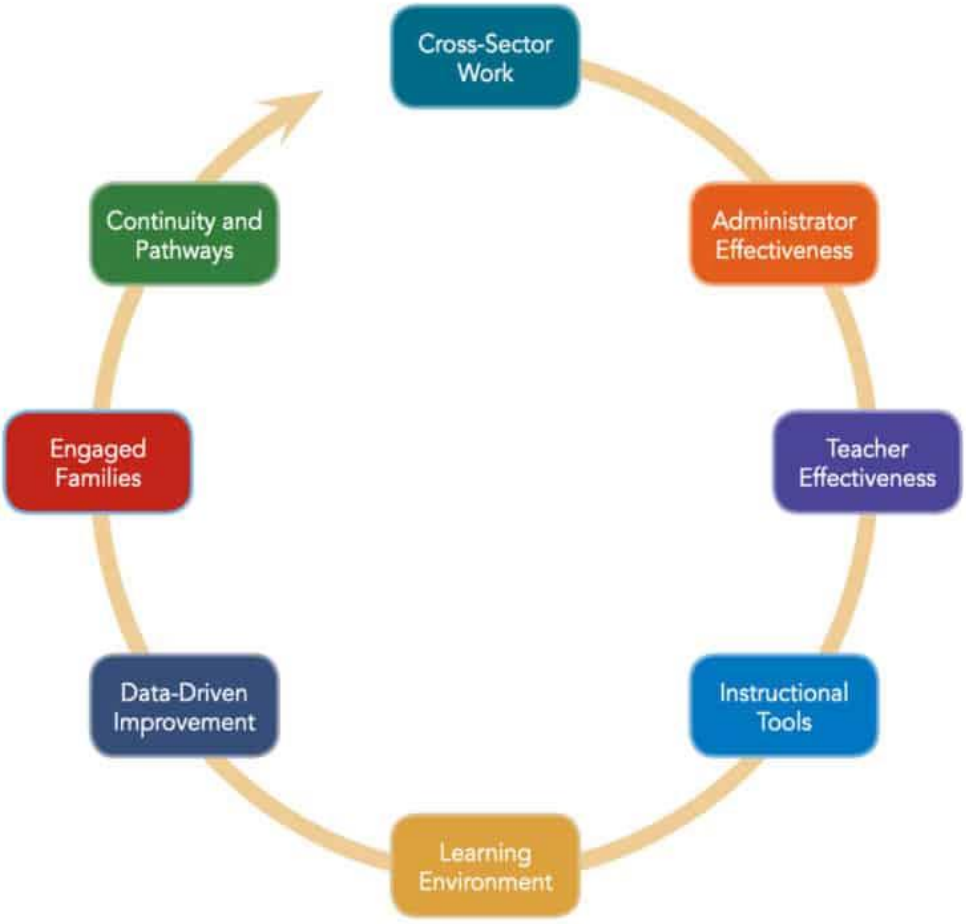
Conceptual Framework

The conceptual framework used in my research, informed by grounded theory, is described in the text, *Framework for Planning, Implementing, and Evaluating P-3 Approaches*

(Kauerz & Coffman, 2019). The Kauerz and Coffman (2019) framework identifies eight major categories or factors considered "essential to high-quality and comprehensive P-3 approaches" (p. 5). See Figure 1 for graphic representation of the framework.

Figure 1

The Kauerz and Coffman Framework for P-3



When I organized the data from my interviews, I used the categories within Kauerz and Coffman's (2019) framework. Had other categories emerged through my coding process, I would have added them to the framework model. According to one grounded theory approach, "the categories, codes, and codings and the systemic procedures [are] guided by the constant comparison of data from the field with emerging categories" (Creswell & Poth, 2018, p. 84).

Thus, as I worked through the data, I found this conceptual framework extremely useful, and I also remained open to the possibility of needing to modify it to better represent the information and understanding my participants shared. The initial structure of this framework, however, adequately allowed me to categorize information from published research and the findings from my own study to identify key themes, and no additions to the conceptual framework were necessary.

Definition of Terms

Early Childhood Education (ECE)/Early Education are terms used to describe the developmental ages from birth to age 8 years (NAEYC, n.d., para. 22). However, for my paper, I used it primarily in terms of ages 3 and 4 years, that is, for students who are eligible for preschool.

P-3/PreK to Grade 3 are terms used to describe the time from birth (preschool) to primary elementary [through third grade] (National P-3 Center, n.d.). For my paper, I used it primarily for ages 3 and 4 years up to Grade 3.

Pre-K/Prekindergarten are terms used to describe "a class or program preceding kindergarten for children usually from three to four years old" (Merriam Webster, n.d., para. 2).

Conclusion

In conclusion, I have introduced the importance and urgency of aligning pre-K systems to the K-12 systems in Minnesota public schools. Though at present much work needs to be done through legislation and policy-makers at the federal and state levels to ensure all children have an equal opportunity to access public school from the age of 3 years and beyond, I chose to study what could be done by school districts *now* to align their pre-K to Grade 3 programs, as "the

cognitive and social capacities of young children, especially their relevance to learning subject matter in primary school, can no longer be overlooked" (Takanishi, 2016, p. 23).

The following chapter is my literature review. For this literature review, I asked: How does the sciences of brain and child development guide how leaders align the early education system to the primary elementary grades to advance a unified, collaborative, and systemic plan? I studied three areas of research: *Brain Development and Pedagogy of School-Aged Children, Components of an Aligned Pre-K-3 System,* and *Systemic Change* and *Systemic Collaboration.*

Chapter Two: Literature Review

I framed my literature review around what Simon Sinek (2010) described as *the why* and *the how*. I wanted to learn why a shift in systemic organization by aligning pre-K to K-12 is important from a scientific and pedagogical perspective, and then what research says about how school districts can do the work. Specifically, I asked: *How does the sciences of brain and child development guide how leaders align the early education system to the primary elementary grades to advance a unified, collaborative, and systemic plan that prioritizes the foundational needs of the pre-K-3rd grade learner?*

Before the literature findings, I have explained the historical background, because misalignment between pre-K and K-12 programs has historical context, resulting in state, district, and policy components deeply embedded in a highly complex, system-wide problem. Then I went into detail discussing three bodies of literature.

My first body of literature, *Brain Development and Pedagogy of School-Aged Children,* looks at the current scientific findings regarding the brain development of school-aged children as it applies to teaching and learning in an educational setting. The second body of literature, *Components of an Aligned Pre-K-3 System*, looks at how scholars understand the transitions that children, staff, and schools need to navigate between early education and the primary grades. Finally, the third body of literature, *Systemic Change and Systemic Collaboration,* examines how scholars understand systemic change to bridge the gap between early education programs and the primary grades.

Placing the Research in Historical Context

In 2002, the No Child Left Behind Act was signed into law by President George W. Bush (The White House, n.d.). This law had a country-wide educational impact focusing on school-

system accountability through high-stakes standardized testing in reading and math starting at Grade 3. Schools had to show they were meeting specific goals by having students at select grade levels take high-stakes, state-implemented assessments. Schools and districts were compared on these results, with consequences if adequate yearly progress (AYP) was not being made (The White House, n.d.).

In 2009, the National Governors Association (NGA) and the Council of Chief State School Officers (CCSSO, n.d.) met to discuss the Common Core State Standards Initiative. The Common Core Standards were developed to be "a set of high-quality academic standards in mathematics and English language arts (ELA) that define clear and consistent K-12 learning goals for students in order to graduate high school prepared to succeed in college, entry-level careers, and life" (CCSSO, n.d., para. 2).

In 2015, President Barack Obama signed Every Student Succeeds Act, which reinforced the importance of assessments, standardized testing, and accountability. Though this new law provided states with more flexibility than did No Child Left Behind, the high stakes, standardized assessments continued in Minnesota (MDE n.d.-c.).

As a result of No Child Left Behind and Every Student Succeed Act legislation and the Common Core Standards, "there is a growing impression among practitioners, researchers, and the media that in the past two decades, preschool and kindergarten classrooms have rapidly become more academically oriented and less focused on exploration, social skill development, and play" (Bassok et al., 2016, p. 2). Bassok et al. (2016) compared the data collected by the National Center for Education Statistics (n.d.) for the Early Childhood Longitudinal Study from two kindergarten cohorts, one from the 1998-99 school year, before No Child Left Behind was implemented, and the other from the 2010-11 school year. Answers to the surveys from

kindergarten teachers in 1998-99 were compared to answers from kindergarten teachers in 2010-11 about their practices and classrooms. Bassok et al. (2016) summarized their findings thusly:

> We show that relative to their counterparts in 1998, public school kindergarten teachers in 2010 are far more likely to believe that academic instruction should begin prior to kindergarten entry. They are also more than twice as likely to expect that most children will leave their classrooms knowing to read. (p. 14)

Two parts of that quote stand out: "academic instruction should begin prior to kindergarten entry" and ". . . expect that most children will leave their classrooms knowing to read" (Bassok et al., 2016, p. 14). These points suggest academic standards have been "pushed down" to the kindergarten level due to legislation, in which case examining whether child development and brain science support beginning academic instruction prior to kindergarten should be considered.

Developmentally appropriate practices (DAP) are research-based approaches to meeting children "where they are" in terms of age and developmental status from infancy to Grade 3 (National Association for the Education of Young Children [NAEYC], 2015). DAP may include active play, free play, guided play, direct instruction, small group work, and peer interactions. DAP emphasizes meeting the specific, individual needs of each child, while the standards are goals all students must reach when they are at a given age level (NAEYC, 2015).

Even though legislation does not require standardized assessments in kindergarten, "in 2010, roughly 30% of public-school kindergarten teachers reported using standardized tests at least once a month. This is 2.6 times more often than the rate reported by *first-grade* [emphasis added] teachers in 1999" (Bassok et al., 2016, p. 14). In addition, in 2010, kindergarten and first grade teachers reported, at a 20%-point increase from the survey in 1998, that "children's

performance relative to state or local standards very important or essential" (Bassok et al., 2016, p. 14).

Though kindergarten students do not complete state-implemented standardized tests, there is more evidence that expectations regarding getting students ready for the third-grade tests are seeping down to the earlier grades. Bassok et al. (2016) reported:

> In a qualitative case study of a Texas elementary school, Booher-Jennings (2005) described the intense pressure teachers in the untested early grades (K-2) felt to prepare their students for third-grade assessments and the reduction of recess to 15 minutes *per week*. (p. 2)

In the last 20 years, policymakers and educators responding to policymakers have systemized standards and high-stakes assessments (CCSSO, n.d.; Minnesota Department of Education, (n.d.-d); U.S. Department of Education, (n.d.); The White House, n.d.). It may be that their intent was not to change kindergarten and the primary grades, since high-stakes accountability does not start until Grade 3; however, research (Bassok et al., 2016) shows that kindergarten and the early grades *have* been greatly affected by these policy changes. It is important to consider how developmentally appropriate these changes are, given what is known about young children's brains and how they respond to formal instruction. Further, it is necessary for educators to understand this research because:

> If adults ask young children to master skills for which the necessary brain circuits have not yet been formed–such as programs that attempt to drill toddlers in reading and math facts–they will be wasting time and resources and might even impair healthy brain development if they induce excessive stress in the child. (Center on the Developing Child at Harvard University [CDCH], 2016, p. 9)

Brain Development and Pedagogy of School-Aged Children

The fields of neuroscience and neuroeducation are advancing at a rapid pace due to technology, particularly as a result of advanced brain imaging techniques. Current research suggests there are certain times in human brain development that are more sensitive to environmental stimulation (Thomas & Knowland, 2009). These are referred to as *sensitive periods*, which Thomas and Knowland (2009) described as "a window within which the effects of the environmental stimulation on brain structure and function are maximized" (p. 2). That is, the brain has the ability to change behavior due to environmental experiences. Formalized schooling would be considered an environmental experience.

A young human brain can change with little effort due to its strong plasticity, the "capacity of the brain to learn from experience" (CDCH, 2016, p. 12). As humans age, the amount of effort and motivation it takes to change behavior increases because plasticity in an older brain is not as strong, and brain circuits may be more mature and stabilized (CDCH, 2016). It is possible to change and learn after the sensitive periods of brain development; however, "it will be harder and more expensive in terms of both societal and individual effort" (CDCH, 2016, p. 13). Educators need to take advantage of this sensitive period in a young child's life by incorporating developmentally appropriate practices.

The development of skills formed in the brain builds out from simple circuits to increasingly more complex circuits and connections (CDCH, 2016). Just as for any nonbiological structure built, the foundation must be strong to support long-term development. Different experiences are vital at different points in a child's brain development. According to the CDCH (2016),

> Early stimulation of the brain through active use of learning and memory circuits can thus result in epigenetic changes that establish a foundation for more effective learning capacities in the future. . . . On the other hand, highly stressful early experiences can authorize genetic instructions that disrupt the development of systems that manage responses to adversity later in life. (p. 8)

In other words, the brain needs to develop in active, low stress conditions; this will set the stage for more complex academic learning.

Ekerdt at al. (2020) completed a study on 59 four-year-old children to find out if the brain's structure changes due to word learning. Children in the study received magnetic resonance imaging (MRI) scans before and after the word-learning intervention and completed pretests and posttests. A passive control group received no intervention during the 3 weeks between scans. The active control group completed eight sessions of sentence comprehension tasks with corrective visual feedback using words they would already be familiar with (names of common animals). In this condition, little or no new learning occurred. The intervention group completed eight training sessions of word learning with the same type of visual feedback, but theirs was about pseudo animals and was designed to stimulate a high level of new learning. After 3 weeks, all children received the second MRI scan and posttest.

The results of this study provided the "first evidence of white matter structural changes following training in preschool-aged children in the domain of word learning" (Ekerdt et al., 2020, p. 614). There was a significant change in the microstructure of the brain's white matter in the students in the pseudo animal word-learning group compared to those in either of the control groups. Interestingly, researchers also found that the children in the intervention group who needed longer to learn the words showed greater white matter increases than did those in the

group who learned the pseudo words more quickly. The researchers concluded that “in order for structural plasticity to occur, the particular task being trained should present a larger challenge for the system than what the system can typically handle” (Ekerdt et al., 2020, p. 615). For the active control group, it could be argued that the learning was not challenging enough; they already knew the material. These early results suggest that a challenging learning situation will lead to learning and structural changes in a child's brain at this time in their development, resulting in a change in behavior (in this case, identifying new vocabulary).

The Ekerdt et al. (2020) study implies that young children’s brains are primed to learn. They also need the opportunity to be in a safe, calm environment that uses DAP at their level (Ekerdt et al., 2016). The control groups’ results showed that little or no learning occurred. Without an appropriate level of challenge—that is, developmentally appropriate pedagogy—this priming may go to waste and become a closed window of opportunity that cannot be easily reopened (CDCH, 2016).

Two higher-level cognitive skills that are developed during early childhood are executive function and self-regulation, both of which occur in the prefrontal cortex during a sensitive period in young school-aged learners (CDCH, 2016). Executive function skills will continue developing until early adulthood. According to Bailey et al. (2019),

> Science tells us the area of the brain responsible for focus, memory, and self-control is just beginning to mature during the preschool and early school years, and as a result, school-age children undergo substantial growth in the ability to manage emotions, behavior, and attention. (p. 3)

Skills in impulse control, planning, goal setting, decision-making, and memory also develop during the preschool years (CDCH, 2016). All these prefrontal cortex skills “are strongly

correlated to young children's readiness for school and the demands of structured academics" (Allee et al., 2023, p. 3). In the aforementioned study by Ekerdt et al. (2020), children had to use attention, learning, and memory to acquire the new vocabulary. It could be argued that challenging these executive function skills in the prefrontal cortex might have caused the increase in white matter. Since this was the first study of its kind for children, more studies are needed to affirm or refute this possible connection.

Play is a developmentally appropriate practice that buffers stress, promotes brain-growth, and supports executive function development (Allee et al., 2023). However, different forms of play can lead to different outcomes. According to Allee et al. (2023), "play shows promise to improve children's academic and cognitive outcomes from a neuroeducation perspective" (p. 11). These researchers thus explored how different play-related teaching approaches affected kindergarten students' learning.

In Allee et al.'s (2023) study, two classrooms participated. In one, a more traditional approach to kindergarten was used, including play-based instruction, in which students had choice and flexibility. This classroom included free choice time, learning centers with teacher-created skill games, and outdoor recess. This traditional-style kindergarten teacher incorporated singing movements and hands-on experiences while she also balanced teaching the standards for kindergarten. The other classroom teacher had a more "contemporary" view of kindergarten instruction, in which standards were the core approach, and drill and practice were emphasized (Allee et al., 2023). Though the contemporary-style teacher also incorporated play, play was structured to be separate from learning and was observed during outdoor recess and when children used instructional apps.

Both the teachers and the parents of the children were told this was a study to explore how different teaching approaches influenced learning; they were not informed that play was the focus of the study. Data were gathered by having the two teachers and parents of the kindergarteners rate the children on a 63-item survey with questions related to executive function. This survey was completed at the beginning and end of the school year. In addition, students were measured on their academic achievement in reading and math in the fall and spring of the school year.

Allee et al. (2023) found relationships between academic achievement and greater executive function health and between play and academic growth. The children in the play-based classroom showed greater increases in academic skills as measured by the reading and math assessments. Further, the traditional-style teacher had fewer concerns for the children's executive functioning capacity compared to the teacher and parents in the contemporary classroom. In fact, "the teacher in the contemporary classroom reported an *increased* [emphasis added] level of EF concerns from pretest to posttest" (Allee et al., 2023, p. 10). The researchers concluded that their study results were consistent with

> emerging evidence linking play-based pedagogy with improved reading and math outcomes for vulnerable learners and reinforce[d] existing research suggesting play can be an effective instructional approach for children from low-income homes who may need additional support developing executive function skills. (Allee et al., 2023, p. 11)

Pyle et al. (2018) conducted an earlier study that was similar to that of Allee et al. (2023). In the Pyle et al. (2018) investigation, play was categorized into two types: *free play*, which was described as "child-directed, with minimal adult involvement" (p. 118), and *guided play,* which "remains child-centered as children continue to direct their own learning, [but] adults, such as the

teachers, are more involved in the play" (p. 118). The study involved 12 teacher-participants. The five teachers in the play-and-development group, like the traditional teacher in the Allee et al. (2023) study, primarily used free play and saw it as a way to develop oral language. They "expressed the belief that there was no direct connection between play and children's academic learning" (Pyle et al., 2018, p. 121). The integrated play-and-learning group, which employed guided-play, included seven teachers who, like Allee et al.'s more contemporary-style teacher, used a variety of play and "expressed the belief that play concurrently nurtures children's academic learning, such as their reading and writing skills" (Pyle et al., 2018, p. 121). The purpose of this study was to analyze integration literacy instruction with play-based learning. Data were collected through observations and interviews.

This study, which took place in Ontario, showed that even though "the current mandate. . . is to implement play-based learning to teach prescribed academic skill" (Pyle et al., 2018, p. 125), *how* play was implemented largely depended on the belief of the teacher. If a teacher did not believe that play supported academics, there was very little guided play and few intentional classroom spaces provided to explore play in the academic setting. In contrast, having a play post office set up with paper, envelopes, and writing tools, with the teacher present for guided play, encouraged students to use literacy and dramatic play in their classroom. This type of environment was either not found with teachers from the play-and-development (free play) group, or, if such spaces were available, the children used them very little compared to the integrated play-and-learning (guided play) group. This finding might suggest that a teacher's philosophical beliefs in teaching and learning can have a dramatic effect not only on their students' classroom experiences but also on their students' academic achievement.

A study by Barker et al. (2014) looked at the amount of structured versus less- structured time 6- to 7-year-old children had at home and how that time spent correlated with development of their executive function skills. Seventy children took part in this study. Parents filled out surveys that categorized their child's home schedules as either *structured* or *less structured*, and the amount of time their children spent in activities of each type. Meanwhile, children's self-directed executive function skills were tested by researchers.

That study concluded that "less-structured time may uniquely support the development of self-directed control by affording children with additional practice in carrying out goal-directed action using internal cues and reminders" (Barker et al., 2014, p. 10). In other words, more time children spent in less-structured activities at home, the higher their executive function skill scores were. Likewise, children who spent more time at home in more structured activities had lower self-directed executive functioning skills. This study supports the research results from both Allee et al. (2023) and Pyle et al. (2018) in suggesting there may be "a relationship between the time children spend in less-structure and structure activities and the development of self-directed executive function" (Barker et al., 2014, p. 10).

To find out if executive function is predictive of academic performance, Fuhs et al. (2014) conducted a longitudinal study with 562 four-year-old children. The students were tested twice in preschool, once in fall and again in the spring, and one more time in the spring of kindergarten. Executive function skills were assessed each time by means of six tasks: backward digit span, copy design, dimensional change card sort, head-toes-knees-shoulders, Kansas Reflection-Impulsivity Scale for Preschoolers, and peg tapping. Academic achievement was determined by use of five subtests from the Woodcock-Johnson III achievement battery. The

aggregate “results indicated that EF [executive function] (or an EF-related construct) continued to predict academic gains beyond early childhood” (Fuhs et al., 2014, p. 1704).

A further finding suggested specific academic content may enhance different areas of executive function (Fuhs et al., 2014). For example, in math, students must keep numbers in their working memory while also problem solving and deciding what to do with the numbers during word-problem solving. In reading, while vocabulary recognition may be automatic, executive functions skills may be needed for complex comprehension. These are examples of cognitive tasks specifically taxing executive function, which may then result in an increase in white matter in the brain, as described by Ekerdt at al. (2020). A task like learning letter names or sounds, in contrast, may be more rote and not tax executive function skills.

In sum, there is a common saying that, “We need to go slow to go fast.” Although legislation like No Child Left Behind seemed to heighten primary teachers' attention to teaching to the standards and making sure students are prepared to start reading early and well in preparation for third grade high-stakes tests, the research from Allee et al. (2023), Barker et al. (2014), Fuhs et al. (2014), and Pyle et al. (2018) is showing that children need time to develop their executive function and self-regulation skills during their early years in school (preschool to Grade 3). The early years are when they have strong plasticity due to a sensitive period of development for executive function and self-regulation skills (CDCH, 2016). Research is showing that play-based pedagogical approaches can accomplish this with young learners (Allee et al., 2023; Fuhs et al., 2014; Pyle et al., 2018).

Components of an Aligned Pre-K-3 System

This subsection of the literature review focuses on the components over which a Minnesota public school has authority and control. This includes such categories as funding, contracts, communication, and training.

Compensation for Teaching Staff

One area that Minnesota public school districts have control over is pre-K and K-12 teachers' compensation. This is one of many areas that affect pre-K teachers' job satisfaction, professional identities, and sense of belonging in the school (Wilinski et al., 2021). In a comparative case study, Wilinski et al. (2021) compared two school districts in Michigan that have a public pre-K program called the Great Start Readiness Program (GSRP). They used interviews and focus groups to gather their data.

Though all the teachers needed a bachelor's degree to teach for the program, "some districts pay GSRP teachers an hourly wage with no benefits, while others include GSRP teachers in the bargaining unit and pay them according to the district salary schedule" (Wilinski et al., 2021, p. 122). Through interviews. Wilinski et al. (2021) found that "compensation policy reinforced a border that defined pre-K teachers as second-class professionals, even when they had the same credentials as K-12 teachers" (p. 134). Wilinski et al. (2021) concluded that "low compensation reinforced teachers' sense that the district did not see or value them and seemed to contribute to the likelihood that they would seek out new opportunities" (p. 134). This constant turnover resulted in "negative ramifications for program quality" (p. 134).

According to the Early Childhood Workforce Index 2020 (McLean et al., 2021), in Minnesota, the adjusted median annual wage of preschool teachers is $35,660, while the annual wage for kindergarten teachers is $59,578. These wages correlate with U.S. News and World

Report (n.d.) statistics, which reported that the *nationwide* median salary for an elementary school teacher was $60,940 but just $31,930 for a preschool teacher. Clearly there is, as Wilinski et al. (2021) pointed out, “an urgent need for compensation parity in pre-K” (p. 135). Teacher pay is an area that is under district control, and making changes to the pay scales could help bridge one gap between the pre-K and K-12 systems.

Collaboration Between Pre-K and Elementary Teachers

Another area districts and school leaders control, at least to some extent, is the amount of collaboration that happens across programs and grade levels. Leaders can intentionally develop collaborative relationships between pre-K and elementary staff. However, Wilinski et al. (2021) found that “most elementary school pre-K teachers and kindergarten teachers described their relationship as ‘nonexistent’” (p. 130).

There are several reasons collaboration across these practitioner levels may not happen organically. One factor that might inhibit collaboration is philosophical differences. Such ideological differences could potentially start as early as the undergraduate years of teacher preparation, as Ritchie et al. (2009) noted, “Historically, early childhood education teacher preparation programs have emphasized child development, whereas preparation programs for elementary school teachers have emphasized academic content (e.g., math, literary)” (p. 15).

That this preparatory schism continues is evident in the findings of a qualitative study conducted by Sisson et al. (2020). A teacher-participant in that investigation said, “They [primary teachers] come in with a very different philosophy, so there’s very little respect” (Sisson et al., 2020, p. 328). A second participant in the same study “suggested teachers should think about early childhood education as a continuum rather than a preschool/school divide where each sector is only concerned with their respective children” (Sisson et al., 2020, p. 327).

The Sisson et al. (2020) study was a narrative inquiry that focused on pre-K and primary teachers instructing at the same site. In addition to concerns about philosophical divides, the pre-K participants in the study also reported fear. They “expressed concern that lack of understanding about preschool curriculum and pedagogy would result in a ‘push-down’ of academically focused curriculum and pedagogy at the cost of their play-based and emergent approaches” (Sisson et al., 2020, p. 327).

Pre-K participants further cited feeling a lack of respect from their administrators (Sisson et al., 2020). For example, the participants reported that pre-K teachers sat at faculty meetings that had nothing to do with them, yet issues about pre-K required holding independent meetings, since the administrators believed the topics did not affect other staff members. Perceptions of unequal treatment between peers (e.g., differences in allotted planning time) and feeling undervalued were also reported.

A study by Boyle and Petriwskyj (2014) sought insights regarding how to reframe professional relationships between pre-K and elementary staff. This was a critical participatory action research study in which the researchers investigated how to develop “deeper professional relationships and shared understandings between teachers from both sectors” (Boyle & Petriwskyj, 2014, p. 392). The researchers found that promoting inclusive conversations between and among teachers may lead to a better understanding of the complexities, challenges, and enjoyment of each other's jobs.

In addition to inclusive conversations, another strategy to enhance across-level relationships may be to have teachers observe each other, so they can work with one another and ask questions about why they choose the practices they do in their classroom (Boyle & Petriwskyj, 2014; Boyle & Wilkinson, 2018).

District-Wide Communication

Communication between departments and instructional levels is, to a certain extent, under a school district's control. The importance of effective communication—and the consequences of its absence—is evident in a study done by Purtell et al. (2020). The researchers sought to understand district policies and practices that lead to successful student transitions from pre-K to kindergarten. Multiple in-depth interviews were conducted with school personnel in 11 school districts across Ohio as well as with key educational stakeholders. In addition to interviews, the researchers collected descriptions of policies and practices linked to the classroom environment at the state, district, school, and classroom levels. The interview questions explored knowledge transfer (e.g., what kindergarten teachers knew about their students before they entered the classroom), methods for alignment and connecting families (e.g., what practices the districts used as children transitioned to kindergarten), structural barriers impeding students' transition to kindergarten, and the impact of district policies (e.g., whether they helped or hindered transition).

One barrier to implementing effective learner transitions described by the participants was in the area of communication (Purtell et al., 2020). The qualitative data suggested the larger participating school systems "had transition practices grouped under multiple leaders or departments, making it difficult for preschool and kindergarten teachers to effectively access information in a timely and effective way" (Purtell et al., 2020, p. 11). Another main finding Purtell et al. (2020) identified related to communication was a lack of understanding by both kindergarten teachers and administrators about the preschool experiences of incoming kindergarteners. The impoverished communication between the pre-K and kindergarten levels resulted in weak or absent interpersonal connections between and across administrators and staff

that “inhibited the implementation of knowledge transfer and alignment practices” (Purtell et al., 2020, p. 12).

An overarching theme this study surfaced “was the lack of, and variability in, transition practices on both a district and a state level” (Purtell et al., 2020, p. 11). The researchers thought there was hope, however, as “district stakeholders (e.g., superintendents principals) acknowledged the lack of formal transition practices on a district level, [and] many mentioned plans to address this lack of consistency in the future” (Purtell et al., 2020, p. 11).

Professional Development

The NAEYC promotes high-quality learning for all children, birth through age 8 years, by connecting early childhood practices, policies, and research. In a position paper, the NAEYC (2020b) stated:

> Chief among the professional responsibilities of early childhood educators is the responsibility to plan and implement intentional, developmentally appropriate learning experiences that prompt the social and emotional development, physical development and health, cognitive development, and general learning competencies of each child served. (p. 3)

However, the misalignment of important elements between systems for children who are pre-K (ages 3-4) and those who are in primary elementary grades, K-3 (ages 5-8), makes it difficult for staff to work with and understand one another (Vitiello et al., 2020).

Training teachers and leaders in developmentally appropriate practice (DAP) is an area over which districts have some control, and providing such training could help encourage collaboration between pre-K and elementary teachers. A case study conducted by Vitiello et al. (2020) found that there “were very clear differences in instructional practices between

kindergarten and pre-K . . . that [were] not aligned in ways that might support continued strong development" (p. 52). Training in DAP "methods that promote each child's optimal development and learning through a strengths-based, play-based approach to joyful, engaged learning" (NAEYC, 2020b, p. 4) would be an example of an alignment a district could provide between pre-K and the primary grades.

Professional development can help teachers understand both the importance of brain development and how play-based learning develops executive functioning and self-regulation skills (Immordino-Yang et al., 2019; Taylor & Boyer, 2020). Immordino-Yang et al. (2019) pointed out that "a person's brain develops differently depending on age, predispositions, priorities, experiences, and environment" (p. 186), yet despite these differences, it is believed that "learning is largely a social process, . . . [and] that through play, children grow their conceptual abilities, knowledge of the word, and abstract thought" (Taylor & Boyer, 2020, p. 128).

There are many types of play that can be used in the classroom (Taylor & Boyer, 2020). In fact, play can be considered a spectrum activity, with degrees of freedom or guidance imposed by outside forces. This spectrum includes types of play such as free play (fully child-directed), inquiry play, collaboratively designed play, playful learning, and learning through adult-developed games intentionally designed to facilitate learning of content (Taylor & Boyer, 2020).

In addition to lacking the same type of child development background as pre-K educators, primary grade teachers wrestle with a "tension between DAP's progressive approach focused on children's development and the expectation of school readiness" (Graue et al., 2017, p. 115). Brown et al. (2021) conducted a study in two states with teacher educators and early childhood teacher candidates. Participants watched a 23-minute film of a typical kindergarten

classroom and then discussed whether the video showed the way students should start their years of formalized schooling in kindergarten. During this discussion, one teacher educator said:

> We need to teach them [early education teacher candidates] to code switch between providing children with awesome, amazing, wonderful learning experiences and recognizing there are some huge political consequences for schools, teachers, and families depending on how folks do on these tests. (Brown et al., 2021, p. 39)

As the first body of research in this chapter pointed out, there are new findings in brain science, but many practicing teachers are not aware of this information and its implications for instruction. Both the teacher educators and the early childhood teacher candidates in Brown et al.'s (2021) study agreed that "the changed kindergarten was not an appropriate learning environment for young children" (p. 39), yet the current education system seems to require curricular approaches that are not in young children's best interest.

Effective staff development through collaborative training might also be a means of further promoting communication. An example of this type of training is evident in an intervention investigated by Tuttle et al. (2016). They studied the impact of a 2-week summer institute provided to pre-K, first-, second-, and third-grade teachers that was designed to impart science content knowledge and the pedagogy of the new Next Generation Science Standards.

The summer institute training involved three main sessions: a science inquiry/engineering-design session, a metacognitive session, and a lesson planning session. The science inquiry lessons were taught by scientists to grade cohorts that included pre-K-kindergarten, kindergarten to Grade 1, Grades 1 and 2, and finally, Grades 2 and 3. The participants were able to see teaching modeled and then put it into practice through their lesson plans, which would be implemented in the following school year.

The metacognitive sessions were held with all teachers so they could reflect on their learning through activities such as asking questions, defining problems, planning vocabulary, and conducting data analysis (Tuttle et al., 2016). The participants were also given time to work with the scientists and coaches to develop lessons to implement. The teachers were scored on their completed lesson plans and evaluated via classroom observations throughout the following school year. The results showed the participants increased their knowledge of science content from the summer institute and actively demonstrated the ability to incorporate the content into their lesson plans and in their classrooms.

These findings suggest that multigrade staff development modeled on the summer institute approach could help teachers learn new information and implement new methods in their classrooms. Though teachers may need additional time, support, and scaffolding, Tuttle et al.'s (2016) study provides sound evidence that the institute effectively empowered participants with a new focus in teaching and content. This research was focused on science learning, but the model could prove beneficial in the teaching of other developmentally appropriate content and practices for young children as well.

Having teachers from early education work with primary education teachers in professional learning communities (PLC) is another professional development opportunity school districts can implement. By working, talking, and collaborating with one another, and by observing in each other's classrooms, teachers can bridge gaps in their understanding of one another's roles and goals (Boyle & Petriwskyj, 2014; Boyle & Wilkinson, 2018).

In summary, research (e.g., Brown et al., 2021; Graue et al., 2017; Immordino-Yang et al., 2019; NAEYC, 2020b; Taylor & Boyer, 2020; Vitiello et al., 2020) appears to be telling educators that play, with an emphasis on child development, is important in children's early

years. Yet political policies are requiring teachers to disregard science and "code switch" to emphasize standards; otherwise, there will be political consequences (Brown et al., 2021). Research has also suggested developmentally appropriate play can be incorporated into professional development—and program alignment achieved—through methods such as an intense summer institute (Tuttle et al., 2016) and effective use of PLCs (Boyle & Petriwskyj, 2014; Boyle & Wilkinson, 2018). This information can be communicated to educators through intentional, district-wide professional development.

Systemic Change and Systemic Collaboration

The research cited in the first section of this literature review addressed *why* alignment is needed in between pre-K to the K-12 systems. The second section focused on *what* elements could be changed that are specifically under local school district control. This final section of the review presents what research says about *how* to make transformational change.

Considering Using Kotter's Eight Step Framework

Nitta et al. (2009) set out to explain how a superintendent in Little Rock School District attempted to transform his organization using Kotter's eight steps of change as a framework. Kotter (2012) developed these eight steps as a roadmap to help organizations discuss transformation, problems in change, and strategies for change. The eight steps include:

1. Establishing a sense of urgency.
2. Creating the guiding coalition.
3. Developing a vision and strategy
4. Communicating the vision change.
5. Empowering employees for broad-based action.
6. Generating short-term wins.

7. Consolidating gains and producing more change.
8. Anchoring new approaches in the culture. (Kotter, 2012, p. v)

It is important to note that Kotter (2012) stated, "successful change of any magnitude goes through all eight stages, usually in the sequence" (p. 25).

The Nitta et al. (2009) study of the Little Rock superintendent's failed efforts to institute systemic change suggested that the superintendent's problems started at Step 4, Communicating the vision change, but up to that point, some success was evident. The superintendent successfully established a sense of urgency (Step 1) by bringing in outside consultants to audit the school district. Conclusions from the audit provided such a sense of urgency that the school board members voted to authorize the plan. Next the superintendent identified a transition team to guide the reorganization (Step 2). This team developed a vision that was "imaginable, focused, flexible, and communicable" (p. 474), which Nitta et al. (2009) determined met five of Kotter's (2012) six characteristics of an effective vision.

Though the superintendent had a clear vision for the reorganization, and he communicated it to the school board and central office personnel well, his efforts to initiate system change started to break down when he tried to train principals (Nitta et al., 2009). The training was not fully effective with these frontline employees who would be tasked with communicating and promoting it within their buildings. When the principals were not able to bring the vision clearly to their staff, it eventually faltered.

The superintendent's change initiative completely broke down on Step 5, empowering others to act on the vision (Nitta et al., 2009). According to the researchers, "almost no one beyond the district's central office was empowered to act on the reorganization vision" (Nitta et al., 2009, p. 478). While this specific outcome was most unfortunate, it does suggest that the key

steps in Kotter's (2012) framework can be used to help guide and evaluate the efforts of district personnel to implement sustainable change.

Principals as Leaders of Change

The leadership method in the Nitta et al. (2009) research was top-down, beginning at the superintendency level. In comparison, a mixed methods study by Day et al. (2016) looked a level lower, at principal initiatives in their own schools. They found that:

> In schools that sustained and/or improved their performances as judged by student academic outcomes . . . principals had exercised leadership that was both transformational and instructional as they progressively shaped the culture and work of their schools in building teachers' commitment and capacities during different phases of their schools' developmental journeys. (Day et al., 2016, p. 225)

Day et al. (2016) identified four phases of school improvement at the building level. The first phase was identified as *foundational*. These involved principals developing a vision and building a leadership team, improving the climate, and using data and research. Next was the *developmental* phase, which included establishing high expectations for staff in data use and teaching quality. The third phase was labeled *enrichment*. This was described as a time of reflection and curriculum development. The final phase was *distribution of leadership*. In this phase, principals ensured that all staff had a part of the leadership responsibility. Throughout all four phases, Day et al. found that a principal needed to use both transformational and instructional leadership skills to be successful. A top-down directive such as that investigated in the Nitta et al. (2009) study was not effective.

District Level Leadership

Earlier, Purtell et al. (2020) described study results leading them to assert that to make meaningful differences in pedagogic practice for students, it is necessary for superintendents to not only communicate the importance of an initiative but also to “pull together the time and resources and to foster the cultural change that connecting these multiple systems warrants" (p. 13). The Purtell et al. finding was supported by Koppich and Stipek (2020), who conducted a study in California to understand the challenges and opportunities of pre-K alignment. Koppich and Stipek interviewed representatives from 25 California school districts with one or more elementary schools having a pre-K program in their school. They found that “what district leaders believe about the role, purpose, and importance of pre-K significantly affects the district’s commitment to alignment” (Koppich & Stipek, 2020, p. 5). In some districts, “if the superintendent did not view pre-K as essential to the district’s overall education program, alignment was less likely to be a district priority” (Koppich & Stipek, 2020, p. 6).

Leadership can start with one or two people, like the superintendent, but unless that transformation leader can develop a team composed of those with positional power, experience and expertise, credibility and reliability, and proven skills, the vision will not succeed (Kotter, 2012). Further, a superintendent working on pre-K to primary elementary level alignment can communicate a vision and form a powerful coalition if they place their pre-K program director in a position of power within the district hierarchy. According to Koppich and Stipek (2020),

> PreK directors who held seats on the superintendent’s cabinet said they not only were able to inform their colleagues about preK issues but also were better informed about what was going on at the elementary level more broadly, specifically regarding the district’s programs, priorities, and goals beyond the preK department. (p. 7).

Conclusion

This literature review presented three topics key to pre-K to early-elementary-level systems alignment and was structured based on Simon Sinek's (2010) model of the golden circle. Sinek explained that great leaders need to lead with the *why*, then shift to the *how*, and finally move to the *what* when transforming educational structures.

In this chapter, the subsection entitled *Brain Development and Pedagogy of School-Aged Children* demonstrated the *why*—why understanding brain development as it relates to pedagogy is important. Transitions and unification between the early education world and the elementary world are vital, and a student's lifelong learning trajectory can be optimized when educators follow the science of brain development.

The second body of literature focused on the components of an aligned system under a public-school district's control. These *Components of an Aligned Pre-K-3 System* are, in many ways, currently separated. This section of the literature review was intended to reflect the *how* in Sinek's (2010) model; it demonstrates science telling school professionals how to change the system so educators do right by students and adhere to their brain development needs.

Finally, the third body of literature examined what researchers say about *Systemic Change and Systemic Collaboration*. This section of the paper completes Sinek's (2010) model by demonstrating the *what*, what might be done to bring the two systems into alignment. The first body of research provided evidence of importance, the second hinted at factors that might be addressed to improve schools, and the third suggests some of what is required to develop a high level of collaboration across the multiple systems and departments in a school district.

My dissertation research was situated in the second and third body of research. The qualitative study investigated how public-school leaders can work to align their current pre-K

and K-12 programs to create collaborative, multisystemic change and develop a unified system. The findings from the study may help educators and educational administrators recognize and prioritize the foundational work of pre-K to third grade using what is known about brain research and the transitions between early education and elementary school. This paper provides a practitioner's vantage-point of how to navigate long-term, sustainable change, thus adding to the currently scant research in this field.

Chapter Three: Methodology

Part I: Introduction to Research Methods

Introduction

Chapter 1 outlined the *why* of the study, explaining why it is important to align the pre-K system to the K-12 system for the benefit of staff, families, and especially students. In Chapter 2, informed by Sinek's (2010) golden circle model, the literature review continued providing information about the *why* by bringing forward findings related to child development, with particular emphasis on brain changes and appropriate pedagogical practices to support them. It then went on to address the *what* of this study, examining research on components of a school system, including its leadership and its staff, that need to be addressed to accomplish alignment between the two separate systems. The literature review concluded with an exploration of factors that could be controlled within districts to accomplish needed changes, introducing an idea of *how* systems alignment could be accomplished in public school systems.

Chapter 3 outlines the research methods, data collection steps, data analysis steps, quality research criteria, and research dissemination plan for my completed doctoral study.

Research Design Overview

My dissertation research was fully situated in the qualitative research paradigm. Denzin and Lincoln (2011) described qualitative researchers as those who "study things in their natural settings, attempting to make sense of, or interpret, phenomena in terms of the meanings people bring to them" (p. 3). My qualitative study used the grounded theory approach. According to Creswell and Poth (2018), "Participants in the [grounded theory] study would all have experienced the process, and the development of the theory might help explain practice or provide a framework for further research" (p. 82).

My research was designed to address a missing informational link for practicing district leaders by looking through the lens of early education leaders. The goal was to contribute to the development of a practical guide public school districts could use to integrate their pre-K systems and programming with their K-12 system. The overarching question guiding the investigation was: *How do public school districts in Minnesota align their pre-K system to their K-12 system to create collaborative, multisystemic change and develop a unified system?* As the researcher, I sought "to systematically develop a theory that explains process, action, or interaction on [the] topic" (Creswell & Poth, 2018, p. 84). Using the data I gathered, I worked toward developing a theory and process for articulating the two systems so they can be integrated for the betterment of the people they serve.

My research subquestions enabled me to delve into the many strands involved in integrating two separate systems under the same umbrella of a public school system. These questions were:

1. What explanations do school leaders provide as they describe their catalyst to aligning their district pre-K and K-12 systems?
2. How do public school leaders start and continue the work to align their pre-K and K-12 systems?
3. What are the greatest challenges for districts as they align their pre-K and K-12 systems?
4. What are the greatest successes for districts as they align their pre-K and K-12 systems

Positionality

At the time this study was conducted, I was a principal in a large suburban Minnesota public school district of approximately 14,000 students. I also had a district-level leadership background. In my study, I was the interviewer conducting all the interviews, and I anticipated

my background and educational position would provide me with both opportunities and obstacles. These yin and yang factors of positionality will be discussed next, starting with the opportunities my background afforded me.

As the person who completed this qualitative research, both conducting the interviews and analyzing the responses, I understood that "the researcher is the instrument of the research" (Maxwell, 2013, p. 45). If I had separated myself and my profession from the research, I would have been cutting the research "off from a major source of insights, hypothesis, and validity checks" (Maxwell, 2013, p. 45). Further, as Alan Peshkin (as cited in Maxwell, 2013) explained, and I considered the following to be true:

> My subjectivity is the basis for the story that I am able to tell. It is a strength on which I build. It makes me who I am as a person *and* as a researcher, equipping me with the perspectives and insights that shape all I do as a researcher, from the selection of topic clear through to the emphases I make in my writing. (p. 45)

I had been an educator for more than 31 years at the time this project concluded. My roles and job titles had changed over the years from teacher to curriculum specialist to administrator. In addition, I had had the opportunity to work in a variety of districts ranging from a small and rural district with approximately 1,500 students to a large and urban district with approximately 33,0000 students. The variety of teaching locations and professional experiences in my professional background helped me understand and relate to the variety of school district personnel I interviewed.

I found I was able to quickly build rapport with each participant as a fellow educator and leader, and as someone highly interested in the improvement of early education alignment. In addition, my experience and background in the language and work of education also added to the

data gathering process. For example, I was able to understand system work, educational acronyms, and vocabulary, so I usually understood what was being conveyed when participants went into detail during the interview, although I also sought their clarification to ensure I was not misinterpreting their contributions.

As a fellow leader and educator, there were also some challenges I experienced in my role as the interviewer. I had to avoid jumping to conclusions, thinking I understood another district's systems and thus failing to ask appropriate follow-up questions. I also had to be careful not to insert my own experiences into the interview. For example, I needed to "keep a focus on learning the meaning that the participants [held] about the problem or issue" (Creswell & Poth, 2018, p. 44) to avoid obscuring that meaning by substituting my own interpretations or those of other researchers whose work I had read. When I was interviewing, I needed to listen to their story fully and carefully; it was not *my* story. As I analyzed the data, my subjectivity helped my research, but during the interviews, I had to be fully present and listening to their story.

In addition, in a short amount of time, I needed to convey the importance of this project and encourage participants to be vulnerable and honest in their answers. I recognized it was possible some participants would want to discuss only successes, so I knew I might have to ask follow-up questions to encourage them to also share the challenges and failures they had encountered. Thus, it was important for me to create a safe, comfortable environment, so participants were willing to share.

Guiding Ethical Principles

Fraenkel et al. (2019) identified "three very important issues that every researcher should address: protecting participants from harm, ensuring confidentiality of research data, and the question of deception of subjects" (p. 63). Before I started any part of my research, I first

completed my Collaborative Institutional Training Initiative (CITI) training, an online ethics teaching program for researchers. Concordia St. Paul (n.d.) described the program as involving:

> the certification of faculty and students in general research and ethics for working with human subjects. The CITI program is a self-paced course that covers the historical development of human subject protections, as well as current information on regulatory and ethical issues. (CITI Training, Institutional Review Board, para. 4)

Next, I completed the Institutional Review Board (IRB) process and application. Both the CITI training and IRB application ensured I protected my participants from harm. In addition, participants had the choice to participate in the interviews. They were also able to discontinue the interview if they choose, at any time. See Appendix A for a copy of the IRB forms and Appendix B for documentation of IRB approval.

To ensure confidentiality of the data, neither the names of districts nor the names of the participants were disclosed anywhere in the research paper. In my own paperwork, names of participants were kept anonymous and separated from the actual interview data. This ensured that the district and person could not be linked to specific information discussed as data were reported.

To ensure the privacy of my participants, when I wrote about individuals, I did not use names or describe characteristics of the interviewees. In addition, during the interview, I did not ask personal questions or identify personal information.

Finally, I was upfront with my participants. They were told the purpose of the research. I did not deceive them before, during, or after the study. As an additional point of ethical practice, I did not interview anyone in the district I worked in, because my employment role and my role

as an interviewer could have created a conflict of interest and thus threatened the credibility of the data in the study.

Part II: Data Collection Steps

Sampling and Recruitment

I contacted the Department of Early Learning (DEL) at the MDE and asked them to identify Minnesota public school districts that had implemented a pre-K to Grade 3 system. The DEL supports the Prekindergarten through Grade Three Initiative (P3) and was an excellent resource for identifying districts that were doing this work throughout the state (MDE, n.d.-b).

With the assistance of the DEL, I also identified the individuals who were responsible for leading the transition to an integrated pre-K to K-12 system or who oversaw their district's integrated programming. To ensure my data and conclusions were valid, since the title of each individual in this position could have been different in different districts, I was diligent to ensure I found participants whose roles and responsibilities for enabling district program integration were comparable. Throughout this purposeful sampling, I used my judgment to select participants who were most likely to provide me with the data I needed for a quality analysis (Fraenkel et al., 2019).

Within this approach, I was also flexible. After I received a list of potential participants from the DEL, I scrutinized the list. I was given 45 names of school districts that had worked with MDE on Preschool to Grade 3 Training. I cross referenced those names with some additional information from the DEL. Specifically, 11 public school districts not only took part in training with the MDE but also joined in a cohort of learning facilitated by the MDE. This signaled to me a serious investment in time, energy, and resources in the area of pre-K to Grade 3 alignment. These then were districts I wanted to find out more about.

With these two criteria, I started with 11 candidate school districts to participate in my study. The districts were different sizes and locations and were situated throughout the state. With my 11 district names and contacts, I emailed the potential participants. In the email, I explained the scope of the project and asked for their help in completing the research by participating in an hour-long Google Meet. Those candidates I did not hear back from within a week I emailed again. A total of eight early education leaders agreed to participate in my study after the second solicitation. I never heard back from the other three district leaders.

Consent Process

After identifying the participants, at least a week before the interview I emailed each the recruitment letter (see Appendix C). The recruitment letter stated that participation in the interviews was voluntary and participants could opt out at any time. It also outlined that the name of their district and their personal names would not be used in the study or report.

Data Collection Processes

After participants agreed to participate, I asked their availability for a 1-hour interview in July or August of 2023. After we agreed upon a date and time, I sent the participant a Google Meet Calendar invite to confirm the interview with the consent form (see Appendix D) and the interview questions (see Appendix E) included as attached files. I asked that they sign the consent form and electronically send it back to me. All participants sent back a signed consent form.

I chose to send the interview questions ahead of time so each participant would be able to reflect on and process the questions before our virtual meeting. I wanted them to have time to think through the questions and their responses. While the questions were fixed, prepared, and sent ahead of time, the semistructured interview was more flexible. For example, if a participant

began to answer more two or more questions simultaneously, I took that into account as they finished their response, and I simply asked the next question I had. If a participant answered questions too quickly or without providing enough information, I asked follow-up questions that were not listed. In other words, it was a prepared interview, but I was more conversational and off-the-cuff when necessary. However, I ensured all questions were fully answered so I could analyze complete and comparable data.

None of the interviews lasted the full 1-hour allotment. The interviews were recorded using the embedded Google Meet recording technology, with closed captioning used as one method of transcribing the interview following the meeting. Google Meet also provided a printed transcript after the interview. Using both closed captions on the video-recorded session and a printed transcript gave me the interview data in two modalities and allowed me to review the recorded session multiple times to ensure I captured the interviewees' words correctly.

During the interviews, I took notes to make sure we stayed on topic and to contribute to the information I was collecting. However, these notes were not in-depth. Instead, I relied on the transcripts for my in-depth analysis and coding.

Part III: Data Analysis Steps

Data Analysis Processes and Procedures

After the interviews, I replayed each video while reading through the closed-captioned transcripts. This allowed me to fix mistakes in the closed captioning transcripts that occurred as the technology translated spoken word to written word. This first replay also introduced me to the process of data analysis using the video and captioning text together.

After I had the transcribed interviews, I used ATLAS.ti to code the transcripts for themes, patterns, and quotes. I coded for both a priori and emergent themes. First, I coded according to my research questions. These a priori categories were named:

- Background Information,
- Catalyst for Alignment Work,
- Continuation of Alignment Work,
- Challenges for Alignment Work,
- Successes for Alignment Work, and
- Recommendations for Alignment Work.

I then used the *Framework for Planning, Implementing, and Evaluating P-3 Approaches* (Kauerz & Coffman, 2019) to determine categories for the participants' answers. See Figure 1 for the a priori categories that were used for this part of the analysis.

In addition to employing the normal ATLAS.ti software for data analysis, I also tried the new AI Coding offered in the ATLAS.ti program. Though this did not help me code in terms of my research questions or the framework concepts, it did allow me to see other patterns emerge. For example, when I coded a quote as "Catalyst for Alignment," the AI program coded some of those same quotes as "Collaboration" or "Equity," which allowed me to further examine the quote and find themes within the research questions that I may have otherwise missed. This "selective coding involve[d] *integrating* or *connecting* the axial codes into even tighter clusters, creating concepts or dimensions of a theory" (McGregor, 2018, p. 250). It allowed me to reflect on the data, patterns, and trends that emerged during the interviews as I consider the categories and themes.

Member Checking

Participants had the opportunity, if they chose, to read through the transcript of their interview after it had been prepared. This would have allowed them to see if there was information they wanted to retract, clarify, or add to the transcript. No participant contacted me to retract, clarify, or add information. After the dissertation has been published, participants will have the opportunity to read any articles or additional publications that result from the research (McGregor, 2018).

Part IV: Quality Research Criteria

Evaluative Criteria and Limitations

Lincoln and Guba (as cited in Robert Wood Johnson Foundations, n.d.) stated that the "trustworthiness of a research study is important to evaluating its worth" (para. 1). They identified the following terms and definitions in establishing trustworthiness:

- credibility - confidence in the "truth" of the findings,
- transferability - showing that the findings have applicability in other contexts,
- dependability - showing that the findings are consistent and could be repeated, and
- confirmability - a degree of neutrality or the extent to which the findings of a study are shaped by the respondents and not researcher bias, motivation, or interest.

  (Robert Wood Johnson Foundation, n.d., para. 1)

To establish credibility and dependability, I used triangulation of sources and compared (a) what my participants said with one another, (b) how their contributions aligned with the *Framework for Planning, Implementing, and Evaluating P-3 Approaches* (Kauerz & Coffman, 2019), and (c) how they articulated with the specific research questions. By providing thick, detailed accounts of the findings and illustrating the themes with quotations and examples, I

helped establish trustworthiness and the possibility of transferability, which “refers to the generalization of a study’s finding by the consumer. . . . The reader makes the transfer of information possible but only if the researcher provides ample details” (Fraenkel et al., 2019, p. 104).

Finally, ensuring confirmability was also important. This means that as I was coding and analyzing, I was mindful of whether the data were sufficient to allow me to draw the “warranted conclusions” (Fraenkel, 2019, p. 144). That is, the data led me rather than the other way around. Once again, I had to remember my positionality in the research. I have expertise and insight, but it was my participants' words that told the story. It was my job to take the puzzle pieces they offered and use my subjectivity to convey the collective story.

Limitations

Since this was a qualitative study, and since it used a purposeful sample, the findings may not generalize to all school districts across the state. The sampling procedure I used, contacting the DEL to identify school districts in Minnesota that were doing alignment work, and the sample size likely had a pronounced influence on my study. For example, the DEL provided me with a list of school districts that participated in their training and a list of districts that worked together to further study P-3 alignment. I also interviewed only the eight districts that agreed to participate in my project. The DEL did not tell me the extent to which the districts participated in the training or cohort learning, for example, or how invested they were in the training or process, or any follow-up information.

The eight districts comprised a variety of sizes and were from a variety of locations across the state. Thus, the participating districts in the sample were not uniform, and the conclusions drawn from the data could have been strongly affected by some of the variability

across sites. Regardless, I believe I was able to find themes and patterns that could help guide districts across the state to do alignment work. I was able to gain insights from the participating school districts that may be generalizable to other public-school districts across the state. As previously described, each school district in Minnesota is locally controlled, and depending on enrollment and location, each has very different resources—human, financial, and capital. These resources affect what can or cannot be done in a school district. That information had to be considered as I analyzed the data.

Part V: Research Dissemination and Conclusion

Participant Appreciation

I planned to show my appreciation to my participants in two ways. First, I sent the participant in each district a thank you email, acknowledging and appreciating their time, expertise, and support in my research. Second, if a published article results from this work, I will offer them a link to the publication.

Publishing

I plan to submit parts of this dissertation to educational leadership journals. I want to be part of the change in my current school district. I also want to have a positive effect on what districts are doing across the state.

Conclusion

In this chapter I described my research methods, data collection steps, quality research criteria, and research dissemination plans. This grounded theory qualitative research involved interviews with eight early education leaders in Minnesota public schools who were doing or had done work around aligning their pre-K to K-12 systems.

In the next chapter I will describe my findings.

Chapter Four: Findings

Early childhood spans the period in child development from birth up to 8 years of age. The North Carolina Department of Health and Human Services (n.d.) explained that experiences during that time "affect the development of the brain's architecture, which provides the foundation for all future learning, behavior and health. A strong foundation helps children develop the skills they need to become well-functioning adults" (para. 2). Yet, in the Minnesota public school system, there are great gaps involving numerous educational structures and supports between the pre-K system (birth to age 5) and K-12 system (starting at age 5). These gaps extend but are not limited to philosophies, curriculum, assessments, management, and funding.

My qualitative study was designed to provide first-hand information from eight Minnesota public school early education leaders who had worked toward aligning their pre-K system to their K-12 system within their own school districts. The research questions that guided my interviews with these leaders were:

- What explanations do school leaders provide as they describe their catalyst for aligning their district's pre-K and K-12 systems?
- How do public school leaders start and continue the work to align their pre-K and K-12 systems?
- What are the challenges and successes for districts as they align their pre-K and K-12 systems?
- What recommendations do the participants have for school districts in doing this work?

A copy of these research questions and the interview questions they yielded are included in Appendix E.

The findings presented in this chapter have been organized around both the research questions and the elements in the *Framework for Planning, Implementing, and Evaluating P-3 Approaches* (Kauerz & Coffman, 2019). See Figure 1 for graphic presentation of the framework. The data for each research question was coded, categorized, and then grouped thematically. As a result, the participants' responses produced salient themes that provide valuable insight into their experiences aligning the pre-K system with the K-12 system.

It is important to note that in reporting the findings, I use the words of the participants as much as possible to provide "evidence to illustrate themes," and "a means to help readers understand the complex processes by which participants make sense of their lives" (McGregor, 2018, p. 356). The quotations presented are the participants' voices, perceptions, and work experiences.

Background of School Districts and Participants

Eight early education leaders from eight different Minnesota public schools participated in this study. The geographic classifications, student enrollments, and participant title classifications of the districts in which these leaders worked are presented in Tables 1, 2, and 3, respectively. To protect participant privacy and confidentiality, no other data about districts will be disclosed.

The geographic classifications shown in Table 1 were derived from Metro State University and Minnesota Office of Higher Education (2022) definitions. Urban school districts have been defined by Metro State University as districts that are in densely populated areas of the state, have an enrollment with at least 40% students of color or 50% of students qualifying for free or reduced lunch, and are in the seven-county Twin Cities metropolitan area (Metro State University, n.d.). Rural schools were those identified by Minnesota Office of Higher Education

on their 2022-23 Rural School Districts list. Two districts were identified as neither urban nor rural, so for the purposes of this study, I categorized them as greater Minnesota districts. This means they were outside the Twin Cities metropolitan area but did not qualify as a rural district by the Minnesota Office of Higher Education.

Table 1

Breakdown of District Geographic Settings

Geographic Setting	Number of School Districts in Study
Urban	4
Rural	2
Greater MN Districts	2

District enrollment data, presented in Table 2, were obtained using MDE's average daily membership report for the fiscal year 2022 (MDE, 2022).

Table 2

District Enrollment Data

Students Enrolled in District	Number of School Districts in Study
Between 2,000-4,000 students	2
Between 4,000-5,000 students	2
Between 5,000-8,000 students	2
Greater than 15,000 students	2

Finally, Table 3 presents the number of participants holding the listed leadership job titles. This information was obtained from each participant's email signature.

Table 3

Job Title Classifications

Job Title	Number of Participants Holding the Title
Coordinator	2
Director	3
Manager	2
Supervisor	1

The participant information presented in Tables 1-3 provides a sense of the educational settings in which the participants worked.

Framework for P-3 Approaches

I coded participants' answers into eight main categories derived from Kauerz and Coffman's (2019) *Framework for Planning, Implementing, and Evaluating P-3 Approaches*. Kauerz and Coffman identified eight major categories that are "essential to high-quality and comprehensive P-3 approaches" (p. 5). They include:

- Cross-sector work – collaborative relationships between pre-K and K-12,
- Administrator effectiveness – all leaders working to create culture and structures,
- Teacher effectiveness – teachers providing high-quality learning,
- Instructional tools – coherence in standards, curriculum, and assessment,
- Learning environments – space; school provide a supportive setting,
- Data-driven improvements – data is used to improved systems,
- Engaged families – families are involved as partners in education, and
- Continuity and pathways – all children have access to a birth to Grade 3 education.

I chose to use a conceptional framework as a lens through which to analyze the participants' answers because such a structure provides "a focus, a rationale, and tool for the integration and interpretation of information and data" (McGregor, 2018, p. 62).

Research Question One: Motivation for a District's Work Toward Alignment

My first research question examined why districts moved into the work of aligning their pre-K system with their K-12 system. Specifically, the prompt was, "Describe the catalyst for aligning pre-K and K-12 systems in your district." Analysis of the answers the participants provided showed their thinking fell into two themes, which I named Transitioning Students and Families to Kindergarten, and Statewide Initiative. Below, I go into more detail on each theme.

Transitioning Students and Families to Kindergarten

> *"They [district leadership] worked a lot on the transition from preschool to kindergarten, which I think is the easiest place to start."* ~ Early Education Leader

A theme emerged from the participants regarding how the work of aligning the pre-K to the K-12 system started. Many began by figuring out how to best transition students to kindergarten, specifically, by aligning preschool for 4-year-olds to kindergarten. When I coded participants' answers, I found they fit under two of Kauerz and Coffman's (2019) framework categories: Teacher Effectiveness, defined as teachers being "actively dedicated to providing high-quality instruction and effective learning experiences for all children, P-3s" (p. 13), and Engaged Families, defined as "Families [that] are actively and systematically involved with P-3 teachers and administrators as full partners in helping their children develop, learn, and achieve" (p. 21).

When participants spoke about transitioning students and families to kindergarten, they spoke of pre-K teachers working together with kindergarten teachers and seeking to engage

parents in their new school community. Since family was viewed by these early education leaders as an essential component of the transition to kindergarten, it makes sense for kindergarten teachers to understand what has happened in preschool in order to make a smooth transition for children and families as they enter kindergarten. Interviewees described teachers working in vertically aligned teams so they were able to partner for the betterment of classroom practices. The following quotes from the study transcripts illustrate that several participants had responses specifically addressing the idea of teacher effectiveness in their motivation toward district alignment:

- "We started off with where we'd have kindergarten and early childhood teachers meet together."
- "The most important thing is relationships between the early childhood team and the elementary team and the special ed team."

One of the participant's responses illustrates the *why* behind their work on transitioning students and families from pre-K to kindergarten:

> We want them [children] set up for success when they transition. What we know is when we have good relationships with them early on and we can transition them into kindergarten smoothly, they're more likely to have success. And the families feel supported and engaged, because you go from a pretty nurturing environment in early childhood to a little bit more separation between family and school in kindergarten. And then again, when you transition in middle school, it happens even more. Families need a little bit of codling and support. Especially since Covid, I think people are more sensitive and more concerned. There's a lot of fears for parents. When we have that transitional support to go with them, they're more likely to engage positively.

Teachers working together for the betterment of children and families may be just the place to start for some districts. According to Vitiello et al. (2020):

> The terms school readiness, transition, and alignment refer not only to what children know and experience directly, but also to the systems in place to make families, teachers, and schools feel connected to each other and efficacious in supporting children. (p. 45)

And as one participant said, it "is the easiest place to start."

Statewide Initiative

> *"Our ECFE program, traditionally, was from birth to [age] five. Then MDE said that early childhood goes to third grade, and so we should do that kind of Grade 3 alignment."* ~ Early Education Leader

A second reoccurring theme emerged from the participants when asked what their district's motivation was for alignment of pre-K to the K-12 system. All the participants cited the statewide initiative from the Minnesota Department of Education. This statewide initiative fell under the Kauerz and Coffman (2019) framework category of Continuity and Pathways: "Every child, especially those most at risk for school failure, has access to the continuity of services and a clear pathway of high-quality education from birth through 3rd grade" (p. 23).

Prior to Covid, the MDE and the Minnesota Elementary School Principals' Association (MESPA) began cosponsoring the MN PreK-3 Principal Leadership Series (n.d.). A 2015 flier described the training:

> This comprehensive, 5-day series supports elementary level principals in improving their school's readiness and the alignment of policies and practices across the birth-to-age eight learning continuum. Developed in partnership between the Minnesota Elementary School Principals' Association and the Minnesota Department of Education, this series will

> cover a range of topics to help principals and their team members prepare strong Prek-3 programs in their schools. (para. 1)

The recommendation for district team constituency was to include a principal, superintendent, school readiness coordinator, and a curriculum director/instructional leader (Minnesota Elementary School Principals' Association, n.d.). Many participants cited this training and initiative, supported by both MDE and MESPA, as the reason to work on the alignment between pre-K and K-12 in their school districts. Participant comments underscoring the value of this coaching included:

- "Our community education director said, 'This is worth it. We have to figure this out.'"
- "Our district was one of the original cohorts, and it was a good opportunity to start having conversations around the table."
- "MDE reached out to one of our teaching and learning coordinators and said, 'Would you like to be part of this?'"
- "I went because I like to be in the know, and it was offered by the Principal Association."
- "The community education director was involved in that P3 work the state was doing."
- "Our leadership said, 'This is where we are going. We need to move in this direction.'"

According to one participant, their district joined because, "Our district has been interested in being involved in those little projects or volunteering to try something new."

One district had already been doing alignment work, and this training series was an opportunity to get others in the district involved. The participant shared:

> They [the district] were involved when the state was kind of first rolling out the P3 work. I know our community education director said she would meet along with the early childhood coordinator at the time, and the Teaching and Learning Department.

Due to the work at the state level and to the principals' association, two participants cited the training effect on the entire district:

- "I think our district, now more than ever, has found the value, and how do we work together as we look at the new K-3."
- "I think the leadership at that time and still does, sees the value of having alignments because they're all our children and the district should want us to work together."

Unfortunately, several interviewees revealed that in their district, the Covid-19 pandemic put a stop to or hold on the alignment work. One participant explained, "They [district leadership] were really working on how to align pre-K to 3. They had a team that would meet fairly regularly and then Covid hit. And they haven't been doing it since then." Another participant said, "then Covid changed everything, and we had changes in staff, and really, that group doesn't meet as a group."

It is evident from the participants' answers that the partnership between the Minnesota Department of Education and the Minnesota Elementary School Principals' Association developed a vision and strategy for locally-controlled school districts. According to Kotter (2012), the "essential function vision serves is to facilitate major change by motivating action that in people's short-term self-interests" (p. 72). Though pre-K-3 alignment was not required by the state, this statewide initiative was embraced in urban and rural districts as well as in districts across greater Minnesota. The disruptor in this initiative was the global pandemic.

Conclusion to Research Question One

Two main themes emerged when early education leaders were asked about their district's motivation to align their pre-K to K-12 systems. The first involved providing a supportive transition from pre-K to kindergarten, and the second was about the district's response to a

statewide initiative training for alignment from pre-K to age 8 years. The first, a supportive transition, was conveyed as an easy springboard for districts to begin the work of alignment. The term *easy* is used here because as participants described it, the shift involved primarily teachers in the pre-K and elementary systems, and it rarely required the cross-sector work of multiple departments and leaders. This "easy" starting place may be akin to working within the specific confines of the ecosystem of a tide pool, knowing the bigger ocean is out there and there is so much to do, but the work must start somewhere.

Research Question Two: Continuation of Alignment Work within a School District

> *"The system was originally built like elementary school, middle school, high school. And there's all this creativity and education in all these different things that we're forced to and get to look at. How do we support everybody, every student, every role, and make sure it's really all webbed together."* ~ Early Education Leader

My next research question asked, "How do public school leaders start and continue the work to align their pre-K and K-12 systems?" The primary theme that emerged fell under the Kauerz and Coffman's (2019) category of Cross-Sector Work, which they defined as, "mechanisms, resources, and structures [that] exist that reflect, support, and sustain shared vision, collaborative relationships, and mutual accountabilities between ECE/0–5 and K-12" (p. 9). I named this theme, Working Across Many Departments, because alignment means working across so many different sectors within a school district.

Working Across Many Departments

Early education leaders listed several different departments they must work with and within to make their pre-K systems run efficiently. One early education leader seemed to summarize this theme:

> When you talk about alignment, it's the fact that we have as a K-12 system, all this stuff, and we have to recreate all of it ourselves in early childhood. We have to figure it out. Are we able to use the same bus company as you? And to what extent? What's that going to cost? How are we going to figure out what funding stream will pay for that? ...So, I think the K-12 system exists and all the things that support it exist. And then we look at early childhood and ask, 'How do we make that happen here?

As I went through the participants' answers to the research question, I categorized all the departments they must work with, both when they do their work and also when they are thinking through how to align systems. Following are the departments the participants identified as needed for the alignment work:

- Advisory committees (requirement of some funding streams)
- Assessment
- Communication department
- Community education
- Curriculum
- Enrollment (MARS, registration)
- District leaders (superintendents, principals, directors)
- Finance (variety of funding streams)
- Human resources (contracts)
- Physical spaces (finding it, requirements depending on funding)
- Partnerships with nonpublic preschools
- Professional development (teacher, administrator)
- Transportation (morning, midday, afternoon routes)

- Special education
- Support services (English language, mental health)

Conclusion to Research Question Two

Department collaboration emerged as a theme when early education leaders were asked about their district's continued work toward alignment for the pre-K to K-12 systems. The K-12 system works as one unified system when it deals with issues such as contracts, transportation, and support services. In comparison, one early education leader explained how alignment works in the early education system: "You'll see in districts that they're piecemealing and puzzling together, how they're going to make it work? How are we leading this? How are we planning for this?"

Early education is a complex system; trying to align it with the K-12 program can seem impossible, especially when the puzzle pieces do not match up. That is why it is essential that district leadership has a vision and commitment to pre-K to third-grade alignment. "What district leaders believe about the role, purpose, and importance of preK significantly affects the district's commitment to alignment" (Koppich & Stipek, 2020, p. 5). When district leaders believe that pre-K students are not only part of the early education program but are instead "essential to the district's overall education program" (Koppich & Stipek, 2020, p. 6) then alignment work will happen, no matter how many departments are involved in the work, because that is the work of the district.

Research Question Three: Successes and Challenges of Alignment

My third research question asked, "What are the challenges and successes for districts as they align their pre-K and K-12 systems?" The themes that emerged from the data were Successfully Working as a System (Cross-Sector Work), Successful Professional Development

for Teachers (Teacher Effectiveness), Challenges of Complex Funding Streams (Cross-Sector Work), Necessity of Superintendents' Support (Administrator Effectiveness), and Challenges of the Constant Turnover of Learning Spaces (Learning Environment). The names of each theme is the name I provided, but in parathesis I have included the category it falls into in the *Framework for Planning, Implementing, and Evaluating P-3 Approaches* (Kauerz & Coffman, 2019). Each of these themes will be explained in more detail in the following subsections.

Successfully Working as a System

> *"Every time you think you want to align early childhood to the system, it's not a battle for us, it's a natural thing."* ~Early Education Leader

When early education leaders spoke about their successes, the main theme that emerged was the pride they felt when their school district worked as a whole system by including the pre-K system and involving it in everything they did. The following participant quotes demonstrate this sense of achievement and importance:

- "The district had enough fund balance that we could run through the pandemic with the low numbers that we had. And people just kind of kept it going and did what we could. So, we're in a pretty good position and a lot of it has to do with the district saying, 'Yes we'll give you some money if you need it.' And our communities said, 'Early childhood is important to us.'"
- "I think the more that we'll find success is if the other levels reach out to us and say, 'We want your perspective.'"
- "So, I mean, my motto has always been like, I'm just gonna dance with who asks me to dance."

- “It's a shared venture in this district for sure. People want to support the early childhood program.”
- “This district is well aware of early childhood in our community.”
- “We have an advisory council that is very active and very vocal, and our district has been very supportive of early childhood for as long as I can remember.”
- “There are people who move into the district who have said, ‘I moved here because you have this [early childhood] program.’”

One participant's answer seemed to summarize the others, without having heard anyone else’s interview:

> So, it's just like looking at every level of the system and looking at it and asking, ‘Do we have alignment?’ And it might seem like, ‘This is silly. This is little.’ But it's really nice when it all aligns, and you see that early childhood is on the staff development thing [agenda] just like everybody else. It's truly everything. It's like turning over all these stones and saying, ‘Are we represented here?’ And you can do the same thing with all sorts of things like, special education, English Language Learners. The system was originally built like elementary school, middle school, high school. And there’s all this creativity and education in all these different things that we’re forced to and get to look at. How do we support everybody, every student, every role, and make sure it’s really all webbed together.

Some participants spoke about a specific person or department:

- “That’s an instance where somebody that’s outside early childhood has reached out to us and said, ‘We see what you're doing, and we want to help with that.’”
- “Good working relationship with the special education department.”

- “Our curriculum director is really trying to do some of that work with her scope.”
- “Being supported by the office of Teaching & Learning department.”
- “MARS Coordinator looking at the enrollment process.”
- “Strong advisory council who does fundraising for us.”

One participant spoke about the district’s communication person reaching out to the early education department: “Now, on our website, you’ll see pictures of our preschool kids popping up, just as much as you do other age groups. It is combed in.” Due to this participant’s comment, I looked at all the participating districts’ websites, since that is a marketing tool districts use to tell the public about their schools and to provide as much information as possible to current and potential incoming families.

On one of the eight websites, early education was mentioned on the main page and described as serving E-12 learners. Two districts mentioned early education on their “About” page, one of which noted they have opportunities for students “from early learning to Grade 12.” The other district website that mentioned early education on an “About” page seemed to suggest early education was a separate program. This was because they explained how many students they serve in K-12, while their community education program serves additional students from many different age categories.

On seven of the eight school district websites, there were links for early education under either their “Academics” tab or their “Schools” tab. Most also had early education under the community education tab as well. On one school district’s website, it was extremely difficult to find the information about early education.

Interviewees from two districts mentioned success in their collaboration with human resources. Said one participant: “My teachers are in the master contract, and I think that is a

benefit for my program." The other said, "Pre-K teachers are on the same salary agreement as K-12 teachers."

The importance of having early education teachers on the master contract was also discussed as a challenge for the district. The participants from the two districts that do have their early education teachers on a master teacher contract cited benefits such as retention. One participant, who does not have this benefit stated, "It's very rare that I don't lose somebody to K or 1 because they'll be on the teacher contract. It's very rare I don't lose someone at the end of August."

Another beneficial aspect of being on the master contract was identified as recruiting. One participant said, "This year, we had fabulous candidates in April and hired five new teachers, and all of them with experience, and that it's made a huge difference, in my opinion." The benefit of promoting longevity was also mentioned by one participant, who stated, "We have people who have worked 25-30 years in this program before they retire and haven't left."

Successful Professional Development for Teachers

> *"On our district-wide professional development, we're all in this together. You're not separate, you are part of the team."* ~Early Education Leader

Another theme that emerged when early education leaders spoke about their successes was the importance of providing high-quality professional development for teachers. According to Kauerz and Coffman (2019), Teacher Effectiveness is defined as, "Teachers [being] actively dedicated to providing high-quality instruction and effective learning experiences for all children, P-3s" (p. 13).

Interview comments that illustrated the role Teacher Effectiveness plays in alignment included things like:

- “I feel like we’ve had some good momentum this past year. We did training with early childhood and kindergarten teachers, principals, and curriculum specialists about play—intentional play-based learning.”
- “We were able to have all of our PD together.”
- “We’ve done some job switches where kindergarten teachers get to come and observe in our program. And we get to go and observe in there’s too.”
- “On our district-wide professional development, we’re all in this together. You're not separate; you are part of the team. You will get paid professional development, just like everyone else.”
- “We've done some district-wide training on equity. So, having my teachers be a part of that and having the same language has been helpful. Before it was all done separately”
- “We just sent 13 staff to the early childhood LETRS training to be able to help support that piece.”
- “They [pre-K PLCs] do a lot of data collection. That data collection is really important for us to be able to stay relevant and at the table. It shows what we’re doing. It lets them know what they’re doing is right too.”

The answers seem to underscore the importance of collaboration and recognize that the early education teachers are indeed doing the same type of work as the higher-grade teachers, whether it is curriculum alignment, data collection, or professional development. The participants also seemed to recognize that these are important for all teachers (i.e., equity within the system). Further, the successes described by participants appeared to affirm the published literature (Boyle & Petriwskyj, 2014; Boyle & Wilkinson, 2018) on the value of having each

group of teachers (early childhood and elementary levels) understanding the jobs each has in the education of children and that each of those contributions are important and relevant.

Challenges of Complex Funding Streams

> *"Preschool funding is a whole other ball game compared to K-12 funding because it's not automatically given to us."* ~Early Education Leader

Funding was a major theme when early educators spoke about challenges while aligning the two oft-siloed systems. As one participant explained, "The challenge is to manage all of the different funding streams." Another participant further explained, "I mean, I have five funding streams that I'm dealing with. It's ridiculous! …If I wasn't spending so much time on my budgeting, I think we could get deeper into the curriculum alignment."

Many participants clearly articulated how funding affected a variety of variables in early education, including how many students they could serve. For example, two interviewees offered:

- "Why don't we just serve anybody that wants to come? Because we can't afford to."
- "I mean, as much as we would love to [pay early education teachers more], we won't be able to serve the same number of kids."

Many participants discussed the relationship between funding and contracts:

> We're all on different contracts and we're paid differently. We get different state funding so as much as we can believe that we're all teachers and we want to pay our teachers and we require all of our teachers to have a license for preschool, not every district does.

- "It's been a little bit of a challenge that not everyone is on the same contract. Funding doesn't allow that."

- “Our ECFE teachers are in the master contract but in an addendum so we're not the same, we don't have all the benefits. They don't have all the steps and lanes.”
- “And then our screeners are on a separate contract.”
- “The turnover of early childhood teachers [is high] because they're not on the regular teacher contract, our preschool teachers are in their own bargaining unit, in a separate contract.”
- “If they [early childhood teachers] were on the contract, I would have teachers that would stay forever, because I have people that have buy-in. I would get a lot of K teachers back.”
- “I [early education leader] am not on a principal's contract. That bothers some people a lot. So, I am on an administrative contract, but I'm not part of the principal union even though I do the same. And actually, I have more kids than some of our schools do, and I have more sites.”

Finally, the contributions of a few of the interviewees suggested that when it comes to funding, nothing is taken for granted:

- “It's the fact that we have as K-12 system, you have this stuff, and we have to recreate all of it ourselves in early childhood...”
- “I think that at the state level, as we've continued to work on how can we make early childhood education a priority, it's like all this piecemeal puzzle together, things that need to happen and then that affects the district level.”

Necessity of Superintendents' Support

> *"Part of my wonder or dream would be for there to be more early childhood focused training in the administrators licensing. So that there really is a good understanding of why it's important."* ~Early Education Leader

A fourth theme emerged when participants spoke about their successes and challenges. Many discussed the challenges they faced when working with fellow administrators from the K-12 system. According to Kauerz and Coffman (2019), Administrator Effectiveness is defined as, "Administrators (district superintendents, school principals, ECE directors) actively creat[ing] a culture and organizational structures that ensure the quality of P-3 learning" (p. 11). In particular, they spoke of the necessity of gaining the superintendent's support from the start of his or her tenure. In addition, the participants asserted that the superintendent needed to uphold the idea that early education was a priority within the district, not an extra program.

Several interviewees commented on the importance of the superintendent setting the stage by establishing that early childhood education is a priority in the district. One participant stated, "The superintendent, somebody with that amount of say so, believes in and really spearheads [early education]. We've tried to have early childhood staff be the leader of the spearhead of this and principals don't come." Another participant said, "We've had so much turnover in administration that we are constantly having to have to say, 'Are we still doing this or not?' We really need that person at the top saying, 'This is important!'"

Still another participant said:

> I think part of that comes back to the leadership models and how you think about kids and where school starts. It doesn't start in kindergarten, but more than ever as there's more opportunities for kids to get into preschool, it really does start before kindergarten.

Yet another participant explained:

> An observation I've made, and I don't know if it's true or not in a data world, but it feels like often, principals and superintendents are secondary teachers. So, they really don't have any perspective of small children of young families.

Thinking of the implications of these leaders' lack of knowledge, the participant concluded,

> The more we can communicate and feel like we have a seat at the table, the better it is for kids and families in our schools. Because we just want kids to be successful. We're not trying to be a pain in anybody's [***], but we do work hard to try to get kids ready for the next step.

Challenges of the Constant Turnover of Learning Spaces

> *"If you want kids to come to our school, you cannot put us in the last possible classroom."* ~Early Education Leader

The final theme that emerged from leaders when asked about the successes and challenges of aligning pre-K to K-12 systems were the challenges they encountered in finding learning spaces for their students. According to Kauerz and Coffman (2019), Learning Environment is defined as, "The physical space and school/program culture [that] promote[s] collaborative relationships, actively engage all children in a variety of learning experiences and settings, and support the health and wellness of children and adults" (p. 17). Specifically, the challenges cited by the participants fell under Promoting Relations category of the framework, which is described as, "Learning environments [that] provide a climate that promotes positive interactions and supportive relationships for children and adults" (p. 16).

In addition to the alignment challenges already mentioned, many participants opined that early education leaders are frequently working with a lack of space:

- “We are often in a location for one or two years, and then we get moved.”
- “We are in some offsite locations, lease space from a church, and have mall sites.”
- “Most of those [elementary school] sites have [only] one [preschool] classroom.”
- “Every year they [early education teachers have to] switch classrooms.”

One participant further explained, “I've said it more than once at the school board table. When I have to talk about preschool, if you want kids to come to our school, you cannot put us in the last possible classroom.” Another said,

> You can't put us in the worst room. You have got to put us in the best room, and that's not what our elementary staff want to hear me say, but that's reality because it benefits. I mean, then it keeps our [district] enrollment, but I'm finding good spaces it's appropriate for early childhood.

Conclusion to Research Question Three

Multiple themes emerged from the research question asking participants to describe the successes and challenges they faced while aligning the pre-K to the K-12 system. These included Successfully Working as a System, Successful Professional Development for Teachers, Challenges of Complex Funding Streams, Necessity of Superintendents’ Support, and Challenges of the Constant Turnover of Learning Spaces. The themes together demonstrate the complexity inherent in the process of weaving together two systems that historically developed separately and do not share the same policies, legislative support, or funding streams. It is up to districts to “make conscious efforts to reduce siloing of pre-K in order to ensure early childhood education programs are integrated into the district’s overall educational system” (Koppich & Stipek, 2020, p. 17).

Research Question Four: Recommendations for Alignment

My final research question sought to discover, "What recommendations do the participants have for school districts in doing this work?" The analysis of the participants' answers indicated their responses fell strongly into two themes that I labeled Get a Seat at the Table (Cross-Sector Work) and Teach Administrators about Early Education (Administrator Effectiveness).

Get a Seat at the Table

"Unless you're very vocal, they won't come looking for you." ~Early Education Leader

The overwhelming majority of answers to the probe about recommendations signaled the importance of representation at high levels of district leadership. More specifically, most respondents mentioned in some way or another that it was crucial to "get a seat at the table." One participant explained:

> It's pretty common to hear that early childhood isn't at the table. And it's like, "Why is that?" And I think some animosity can come about in that discussion in different districts. And I think that perhaps it is one of those places where you can assume positive intent. Nobody is meaning to leave early childhood out of the conversation. But then that's going back to, "How do we get it [a seat at the table]?"

A seat at the leadership table for some meant the cabinet while for others it referred leadership teams (e.g., principal's meetings). In either case, such access was perceived to give the early education leader opportunities to:

- "Make connections across the district."
- "Use that data [importance of early education] to reinforce your seat at the table."
- [Be an] "involved cabinet member in the district."

- “Increase awareness and highlighting the value and importance of it [early education].”
- [Participate in] “building capacity.”
- [Create] “good strategic roadmaps for districts to make this work.”
- [Show leaders how to] “look at it [early education] from an investment standpoint. Look at your returns when you invest in early childhood and look at how valuable those returns are.”
- [Be on the district’s] “strategic plan as an area of growth.”

Presenting to school boards multiple times a year was also identified as a valuable outcome of participating at the administrative level, as illustrated by one participant, who offered:

> Preschool gets a little bit forgotten about, and whether school districts report things, a lot of times it's like K-12, K-12, K-12. It's like, wait, these kids have been with us since they were babies with ECFE and then did the pre-K three [classes] and the pre-K four [classes].

What these early educators pointed out is that if parents are enrolling their students in the school district, there may be a high chance the families will stay in the district after preschool. As summarized by one interviewee, early education is:

> a gateway into the school. This is a great way if you encourage families to commit to preschool then and they really like the school, then they're going to keep coming to this school through the rest of their elementary years.

Teach Administrators about Early Education

> *“I feel like early childhood programs are a mystery to administration.”*
>
> ~Early Education Leader

The other theme that emerged when leaders were asked what recommendations they would give to other districts was to teach administrators about early education. This was an overriding theme evidenced by the majority of participants and summarized by one who said, "Mak[e] sure principals and administrators understand early childhood programming. Value and partner with us." Many of the answers also revealed the participants' belief that educating leaders in other areas of the school district is also important. One person directly stated, "It's really important to keep educating them." Another explained, "It can take a pause [due to turnover] with superintendents, depending on where their energy is, but the data is there, which really helps me be at the table and to keep pushing my agenda."

Conclusion to Research Question Four

The themes that emerged from Question Four supported the assertion Koppich and Stipek (2020) advanced: "Where the preK directors 'sits' in the district's administrative structure is important. Place in the district hierarchy, implicitly or explicitly, conveys a message about the district's sense of preK's significance in the district's overall education program" (p. 7). Further, Koppich and Stipek (2020) explained,

> PreK directors who held seats on the superintendent's cabinet said they not only were able to inform their colleagues about preK issues but also were better informed about what was going on at the elementary level more broadly, specifically regarding the district's programs, priorities, and goals beyond the preK department. (p. 7)

Conclusion

This study investigated how key staff members from eight Minnesota public schools have and are aligning their pre-K system to their K-12 system. The overarching research question was: How do public school districts in Minnesota align their pre-K system to their K-12 system to

create collaborative, multisystemic change and develop a unified system? This question arose in response to identification of a gap in research regarding how early education experts in school systems perceived their roles and the important factors enabling such systems alignment. These key district staff had never been asked for their opinions, experiences, and suggestions. Thus, it was through this lens—the perceptions of these early education leaders—that I chose to investigate why districts started this work, what districts were doing well, what barriers they had faced, and what their recommendations would be for other school districts.

In the next chapter, I will highlight this study's implications and recommendations for leadership practices, leadership policies, and scholarship.

Chapter Five: Discussion

Introduction

The goal of this study was to begin to understand how public-school districts in Minnesota work to solve the long-standing disconnect between early education and K-12 systems. The problem of practice and the research question guiding this investigation was: How does the sciences of brain and child development guide how leaders align the early education system to the primary elementary grades to advance a unified, collaborative, and systemic plan?

When students enter kindergarten, many districts are so detached from the pre-K system that they treat the child and family as if the student was new, even if the student was enrolled in the district's preschool. When a child first transitions from the lowest level on the educational ladder to the next, parents and guardians may be asked to engage with a new enrollment system and further paperwork, and children may be asked to redo assessments they may have completed in pre-K. What families may not realize is that this process is the beginning of the disconnect between the pre-K and K-12 system. Beneath the surface are gaps in curriculum, communication, funding, philosophies, instructional practices, and hiring practices. Parents *see* one district educating their child in pre-K, and the same district educating their child in kindergarten. But in many cases, the two systems are run independently; siloed from one another.

In contrast to the current, typical district practice of running separate systems, "proponents of preK-3 alignment note that child development is a continuous process, and the later grades must build upon and reinforce the skills developed in previous grades" (Koppich & Stipek, 2020, p. 1). According to a National Association for the Education of Young Children (NAEYC, 2020) position paper, "emerging science emphasizes the critical importance of early

childhood educators in providing consistent, responsive, sensitive care and education to promote children's development and learning across the full birth-through-8 age span" (p. 8).

Published research has indicated that current practices for kindergarten to Grade 3 education may "prioritize[e] cognitive learning at the expense of physical, social, emotional, and linguistic development. But integrating cognitive, emotional, social, and interpersonal skills and self-regulatory competencies better prepares children for more challenging academic content and learning experiences" (NAEYC, 2020, p. 9). Educational leaders must take that information and make changes to align their district's pre-K system to their K-12 system to make a clear, consistent path for their students, starting at the foundational level (through age 8 years) and continuing all the way to graduation.

However, the literature does not include clear guidance regarding how to achieve the necessary changes. This grounded theory study was designed to shed some light on how public-school districts in Minnesota have aligned their pre-K and K-12 systems to create collaborative, multisystemic change and develop a unified organization. Following semistructured interviews with early education leaders in eight Minnesota school districts, the thoughts, and ideas they shared were analyzed to draw some preliminary conclusions regarding the reasons these educators chose to work toward aligning their district's pre-K and K-2 programs, what processes they used in their efforts, and what they saw as successes and challenges as they proceeded.

I aim to share the implications and recommendations from this study regarding aligned preschool to Grade 3 programs with district leaders. I will also share recommendations for leadership practices, future policies, and next steps for future scholarship. I will conclude with how I will share my research and findings and share them with the greater community.

Overall Contribution

The purpose of this qualitative study was to learn, from early education leaders' perspectives, how public schools in Minnesota can align or not align their pre-K to K-12 systems. I saw a gap in the research when I realized that the perspectives of these leaders, the ones responsible for managing and leading the pre-K system, were not included in the published literature. Ideally, this initial problem exploration will stimulate other researchers to further investigate practitioners who are working through these processes every day. These educational leaders are the ones who can articulate what is going well, describe the challenges and barriers they may have faced, and share whether and how they overcame problems.

Through the interviews for this paper, each leader demonstrated a strong understanding of their program and staff. They also saw their program and school district through the lens of the family and recognized that if families have good early childhood education experiences with a district, they tend to want to stay in the district. As one early education leader explained, "What we're really trying to do is keep the kids in our program so that they stay with us." For some districts in the study, this was an important factor because there was a lot of local competition in the form of private, parochial, charter, and home school options for children and families.

Implications and Recommendations for Leadership

The strongest theme that emerged in the area of practice was the critical role of leadership. Leadership starts with the superintendent and trickles down to all levels of the district, no matter its size or location of the district. Following is a brief discussion of two of the key leadership themes.

Requiring a Seat at the Table for Early Education Leaders

Almost every participant, when asked the question about recommendations for other districts, indicated that early education leaders need to have a seat at the decision-making table. This seat needs to be provided or approved by the superintendent. Koppich and Stipek's (2020) research agrees: "Where the preK director 'sits' in the district's administrative structure is important. Place in the district hierarchy, implicitly or explicitly, conveys a message about the district's sense of preK's significance in the district's overall education program" (p. 7). One of my participants explained, "I make sure to get my place at the table. I'm a pretty active, involved Cabinet member…the [early education] data is there, which really helps me be at the table and to keep pushing my agenda."

Early education department heads to be *leaders,* not just managers of a district program. When San Francisco School District decided to build a pre-K to third-grade bridge, they purposely "hired a leader for the PreK-3rd strategy with deep knowledge of early education, a data-driven approach, an entrepreneurial style, and ability to delegate, and an understanding of the culture and systems of public education" (Nyhan, 2015, p. 12). This hiring explicitly showed the district's sense of urgency and facilitated Phase One of their alignment work (Nyhan, 2015).

Early education is a field that may be unfamiliar to many principals or superintendents. Given the range of needs of families and their children aged newborn to 5 years, knowledgeable early education leaders can provide the expertise that is needed during discussions of how the district should run if it is indeed an E-12 system. In addition, early educators can contribute knowledge and expertise on child and brain development and on early-education pedagogy that even elementary school principals may not have. One participant explained, "I am making sure principals and administrators understand early childhood programming. . . . I think the more we

can communicate and feel like we have a seat at the table the better it is for kids and families in our schools." Without background knowledge of and experience with the developmental and educational needs of young children, district and building leaders must lean on the experts: their colleagues leading at the early education level.

Using a Leadership Model to Move to an E-12 System

Using Kotter's (2012) Eight Step Framework, the superintendent, with the help of his or her cabinet, could make early education alignment a priority for the district. Kotter (2012) recommended the following steps:

1. Establishing a sense of urgency.
2. Creating the guiding coalition.
3. Developing a vision and strategy
4. Communicating the vision change.
5. Empowering employees for broad-based action.
6. Generating short-term wins.
7. Consolidating gains and producing more change.
8. Anchoring new approaches in the culture. (p. v)

As some of the participants in my study noted, when families start out in the district's early education program and have good experiences, they are likely to stay for the other grades. In Minnesota, with many options for education (i.e., public schools, charter schools, online schooling, open enrollment in other public schools, and homeschool), and with districts relying primarily on pupil counts for their revenue, the capture of pre-K students entering kindergarten is extremely important for enrollment.

Early education can be a family's first experience with the public school system. If the superintendent and cabinet say that early education and the primary grades are essential foundations for the entire system, and if parents perceive the district as providing great customer service, the stage is set for every other leadership department. Establishing the necessary climate is not a simple thing, however:

> Leading change to create an integrated PreK-3rd education and connect early learning programs with the K-12 system is not easy. Superintendents require courage to take the first step, persistence and political skills to encourage organizational and community engagement, and a relentless focus on results to measure progress and build momentum. (Marietta, 2010, p. 2)

A superintendent's integrated E-12 vision sets the district that all students, no matter their age. This vision requires every department (i.e., building leadership, teaching and learning, human resources, communications, etc.) to look at their work through an E-12 lens rather than a K-12 lens. Further, for each of those departments, early education leaders serve as liaisons to make sure the district is providing appropriate learning environments, equitable teaching contracts, developmentally appropriate practices, and aligned curriculum and assessments. Using Kotter's (2012) framework can provide leaders with short-term wins while also producing a long-term vision. In addition, the framework can help change the culture of the school district. The alignment of the full educational system could be seen as the vision that children, from birth to Grade 12, are students and must be nurtured and educated so they and their families can become and be productive citizens in the community.

Implications and Recommendations for Policy

Though this research was meant to focus on what the district can do rather than to generate recommendations for state-level change, two themes that emerged from the data are of pivotal importance: legislation funding and state initiatives. These themes are worth some discussion, given the crucial role they played in facilitating the district transformation processes the study participants described.

Funding

If state or federal legislation and funding continues to treat children under 5 years of age differently than older K-12 students, districts will continually have difficulty aligning their pre-K system to their K-12 system. One participant explained, “Preschool funding is a whole another ball game compared to K-12 funding because it's not automatically given to us and so they're like why don't we just serve anybody that wants to come? Because we can't afford to!”

Another participant described working with five different funding streams to run her program. Five different funding streams means five different sets of rules and regulations her programs need to follow. (Another participant cited nine different funding stream!) These multiple sources of monies and the rules that come with them make program development and management extremely difficult for the early education leader. While this paper reports just these two educators’ personal experiences, their comments illustrate some of the challenges administrators face when trying to ensure valuable programs are continually funded.

Study participants revealed that some districts allow them to draw money from their general funds to assist early education programs in specific areas, like affording personnel contracts and transportation or to get through years with low enrollment. However, if a district is unable or unwilling to tap into general funds, the early education program must rely exclusively

on charging tuition and obtaining money from various outside funding streams, neither of which are guaranteed sources of income.

Another barrier for districts in budgeting and maintaining programs is that, according to *Minnesota School Finance: A Guide for Legislators* (Strom, 2023), "districts may establish a sliding fee for school readiness programs. Fees must be waived for participants who are unable to pay" (p. 69). Lack of money and funding uncertainty makes it extremely difficult to maintain a program, since income sources may not be consistent from year to year.

In Minnesota, a district's early childhood program relies on state aid, local levies, and participant fees. ECFE allowance equals 2.3% of the general education basic formula allowance—$164.16 for fiscal year 2024—while in the same year, the basic formula allowance for a K-12 student is $7,138 (Strom, 2023). State aid in Minnesota may include funds for voluntary prekindergarten/school readiness programming and early learning scholarships, but not all districts apply for or qualify for such aid. The *Minnesota School Finance: A Guide for Legislators* (Strom, 2023) also says, "Districts may also obtain funds from other sources to support early childhood programs" (p. 69). However, acquiring funds from "other sources" requires additional time and energy on the part of the early education leaders, and that money may be awarded with additional rules and regulations that must be followed.

State Initiatives

Another strong theme that emerged from the data was the importance of the P3 training provided from the collaboration between the MDE and the MESPA. All eight participants expressly stated that this was one of the primary reasons they got formally involved in pre-K to K-12 alignment work. One reason this training was important may have been because the support it provided was ongoing and involved leaders from many different district-level

departments, such as superintendents, principals, early education leaders, and curriculum leaders (Minnesota Elementary School Principals' Association, n.d.).

Implications and Recommendations for Scholarship

This study was conducted with a very limited sample size of only eight participants. These participants were located and recruited due to their work with the MDE P3 training. There were many districts in Minnesota that did not participate in the training, and their voices need to be heard as well. With more education and awareness, professional educators may find themselves better able to negotiate the challenges and barriers to pre-K to K-12 systems alignment. It would be valuable to interview district representatives who did not go through the MDE P3 training and compare their answers to those of the participants in this study.

In addition, although geographic and demographic data were collected and included in Chapter 4, data analysis for this project did not involve comparisons between the responses of urban and rural school representatives, nor were comparisons made between the input of participants from higher-enrollment districts and smaller ones. Further, none of the participants were employed in very small districts (less than 3,000). Analysis of the roles of these factors should be examined in the future.

Additionally, the interviews were conducted with early education leaders rather than with superintendents. This choice was deliberate, as the viewpoints of those leaders who were directly impacted by decisions to align were of primary interest. Interviews with superintendents may provide a very different perspective however, as they work and view the district from a "higher vantage." Insights from professionals functioning in the uppermost level in the district would be extremely helpful since there are so many components to running a school district, and those individuals may be able to discuss factors outside early education leaders' awareness or sphere of

influence. In addition, superintendents also must work with the school board and community. Information regarding how these groups affect alignment decisions and processes would help illuminate what priorities affect the district structure.

Interviews with superintendents could also provide insight regarding how job longevity might influence pre-K to K-12 alignment efforts. Alignment initiatives require investing money and resources into a 4-year-old learner, and the returns may take more than a decade to manifest. Since a superintendent's tenure may be shorter than the time required to realize the returns, it may be worth knowing whether they see that investment of time and energy as worthwhile and whether they are able to embrace the long-term gains that can result from short-term successes.

Besides research specific to Minnesota school districts or the superintendency, there are other ideas that emerged from the interviews that could prove fruitful for further research. For example, determining how to make all families and students feel welcomed in an early education to Grade 5 building, no matter what grade level an incoming child is starting, may provide valuable information for districts, regardless of their alignment status. Another possible avenue for investigation might be comparative research between states that have an early education component within their preservice principal programs and those that do not. Finally, the field could be furthered by exploring how leaders can be supported in their alignment work by dedicating resources and aligning programs.

Conclusion

The problem of practice and the goal of this study was to see how a group of upper-level educational professionals from a small sample of Minnesota school districts were aligning their pre-K to K-12 systems. The findings showed that there are districts that are doing the alignment

work and finding success and challenges as they go. I intend to share my research and findings with my school district to continue our own work in this alignment. I also will present my findings to MDE and to the elementary principals' group, MESPA. Though the Covid pandemic put a halt to much of the state- and district-initiated efforts discussed in this study, the groundwork has been laid, and it was evident from the participants' comments that the work was important and valuable. We know better than to ignore findings related to brain research and developmentally appropriate practice for those birth to age 8; we must do better as educational systems for our students. If our state and legislative bodies are not ready to actively promote system alignment efforts, then locally controlled districts must take the reins, because that is what is best for children.

Further research may include talking to more early education leaders across the state. The more voices we bring to this conversation, the more our leaders may hear its importance. Further studies should include interviewing both districts that have started alignment work and those that have not started it at all. In addition, further research may include working with district superintendents. Alignment of E-12 is a complex and time-consuming process, and it may take longer than a superintendent's tenure in one district. It would be important to know how superintendents prioritize long-term goals they may not be around to see to completion. It would also be interesting to find out how education institutions sustain alignment work when their superintendents have moved on to a new position elsewhere.

If public education is to serve all students, then we need to continue the journey of including our earliest learners in what we now call K-12 education. Really, we should be thinking of it as E-12 education. We need to continue to advocate at the federal, state, and local levels to understand that *all* early learners deserve to be educated, not just those whose families

can afford preschool services. This is an equity issue for all children. Funding, policies, and mandates should serve every child. We must persevere to ensure all learners, regardless of age, get served in our public schools.

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Appendix A

IRB Forms

Use this form to answer evaluation criteria 1-9 of the Protocol Guidelines

Evaluation Criteria	Answer Questions Here
Subjects	This study will include 10 Early Education Managers (exact position titles may vary, depending on the district) in large, suburban public-school districts in Minnesota.
Purpose Statement	The purpose of my grounded theory study will be to gain an understanding of how public-school districts in Minnesota have aligned their pre-K and K-12 systems to create collaborative, multisystemic change and develop a unified organization. My motivation for this research is to contribute to the development of a practical guide public school districts can use to integrate their pre-K systems and programming with their K-12 system. Through interviews with Early Education Managers in large, suburban public-school districts in Minnesota, I will investigate the reasons their districts chose to go forward with aligning pre-K and K-2 programs, what processes they used to implement the work, their successes, challenges, and recommendations. This research will attempt to answer my overarching research question: *How do public school districts in Minnesota align their pre-K system to their K-12 system to create collaborative, multisystemic change and develop a unified system?* As the researcher, I will seek "to systematically develop a theory that explains process, action, or interaction on a topic" (Creswell & Poth, 2018, p. 84). Using the data I gather, I hope to develop a theory and process for coordinating the two systems so they are integrated for the betterment of the students, staff, and families for whom they serve. My research sub questions will enable me to delve into the many strands involved in integrating two separate systems under the same umbrella of a public school system. These questions are: 1. What explanations do school leaders provide as they describe their catalyst for aligning their district pre-K and K-12 systems? 2. How do public school leaders start and continue the work to align their pre-K and K-12 systems? 3. What are the challenges and successes for districts as they align their pre-K and K-12 systems?

	4. What recommendations do the participants have for school districts in doing this work? I believe at the district level, educational leaders must guide their systems and staff as they navigate a web of political policies and mandates, all while still understanding and following current research in teaching, learning, and leadership. Through my dissertation research, I hope to provide a navigational map for educational leaders who want to start or continue the work of creating strong pre-K and early elementary alignment for their own district.
Methods, Procedures, and Analysis	I plan to contact the Department of Early Learning (DEL) at the Minnesota Department of Education (MDE) to help identify Minnesota public school districts that have implemented a pre-K to Grade 3 system. The DEL supports the Prekindergarten through Grade Three (P3) Initiative and will be an excellent resource for identifying districts that are doing this work throughout the state (MDE, n.d.-b). I will cross reference this list with the enrollment data of each public school district in Minnesota. This will allow me to identify 10 large suburban school districts that have implemented pre-K to Grade 3 alignment within their district. I may find there are large suburban school districts that have not started this work. I will consider including those districts in the study as they will also provide me with information on why they have yet to do the alignment work, or perhaps what barriers they have run into to start the alignment work. I will use the district website to find the person whose title is Early Education Manager or something similar so that all of the participants hold similar roles within the district. Depending on the names I find or am given and their availability, my approach may also border on convenience sampling. After I receive a list of potential participants from DEL, I will analyze the list. If I am only given 8-10 names and few, if any, are large suburban districts, I will go forward with those names, even if that means that the districts are different sizes and locations throughout the state. Ideally, I would have all of the districts similar in size and location. However, I know this may not be possible due to districts not doing this work or potential participants declining to participate. My goal is to have 10 districts to contact from DEL. If there are fewer districts, I may have to reach out to other professional leaders, colleagues or organizations like the Minnesota Elementary School Principals' Association (MESPA) or the National P-3 Center. These associations may know of districts within Minnesota that have started or are doing this work of aligning the pre-K and the K-12 systems.

	After I have my district names and contacts, I will email the potential participants. In the email, I will explain the scope of the project and ask for their help in completing the research by participating in an hour-long Zoom meeting. If I do not hear back from any of the participants within a week, I will give them a personal phone call. Minimally, I would like to have 6-8 districts participating in this research. **Consent Process** After identifying the participants, at least a week before the interview, I will email each participant a consent form to sign. This form will outline that participation in this survey is voluntary, and participants may opt-out at any time. It will also outline that the name of their district and their personal names will not be used in the study. I will ask that they sign this form and electronically send it back to me. **Data Collection Processes** After participants agree to participate, I will ask about their availability for a one-hour interview in June and July 2023. Ideally, the interviews will take place during these two months, but I will be agreeable to conducting interviews in August if that is all they have available. After we have an agreed-upon date and time, I will send the participant a Google Meet Calendar invite to confirm the interview. In addition, at that time, I will send the participant the Consent Form that will need to be signed and returned, as well as the list of interview questions. I am choosing to send the interview questions ahead of time so that each participant is able to reflect on and process the questions. I want them to be able to think through the questions and their responses. This will be a semi-structured interview. As noted, the questions will be prepared and sent ahead of time, but the interview may be more flexible if needed. For example, if a participant begins to answer more than one question at a time, I will take that into account as they finish their response, and I ask the next question. If a participant answers questions too quickly or with not enough information, I may ask follow-up questions that are not listed. In other words, it will be a prepared interview, but I may need to be more conversational. However, I will want the content of all questions answered so that I can analyze similar data. Each interview will be one hour, with just me and the participant. Interviews will take place via the online platform Zoom, during which I will ask open-ended questions. These interviews will be recorded using the embedded Zoom recording technology, with closed caption used as my method of transcribing the interview. During the interview, I will take notes to make sure we stay on topic and that I'm getting the information I need. However, these notes will not be in-depth. Instead, I will rely on the analysis of the transcripts for my in-depth analysis.

	Member Checking Participants will have the opportunity, if they choose, to read through the transcript of their interview after it has been prepared. This will allow them to see if there is information they want to retract from the transcript, clarify, or add. **Data Analysis Processes and Procedures** I will not only record the interviews that are conducted via Zoom, but I will use the closed captioning feature. This feature allows the entire video to be transcribed as it is taking place. After the interviews, I will replay the interview while reading through the closed-captioned transcripts. This will allow me to fix mistakes that occur as technology tries to translate the spoken word to the written word. After I have transcribed the interviews, I plan to use Google Docs and Google Spreadsheets as I code the transcripts for themes and patterns. I plan to code for both priori and emergent themes. To help code for expected, pre-existing themes, I will use eight different colors to identify the categories that are identified in *Framework for Planning, Implementing, and Evaluating P-3 Approaches* (Kauerz & Coffman, 2019).
Risks	To ensure the confidentiality of the data, neither the names of the districts nor the names of the participants will be disclosed in my research paper. Instead, I will label each school district with a letter (District A, District B, etc.). In my own paperwork, the names of participants will be kept anonymous and separated from the actual interview data. This will ensure that the district, person, and information cannot be identified as the data is reported. To ensure the privacy of my participants, when I write about individuals, not only will pseudonyms be used, but I will not use describing characteristics of the person. In addition, during the interview, I will not be asking personal questions or identifying personal information.
Benefits	I will show my appreciation to my participants in two ways. First, I will send them thank you cards, thanking them for their time, expertise, and support in my research. Next, when the research is complete, I will offer them any findings, recommendations, or guides that come from the research.

Costs to the subjects	The cost to the subject is their time during our interview.
Informed Consent	After identifying the participants, at least a week before the interview, I will email each participant a consent form to sign. This form will outline that participation in this survey is voluntary, and participants may opt-out at any time. It will also outline that the name of their district and their personal names will not be used in the study. I will ask that they sign this form and electronically send it back to me.
Deception	There is no deception in this study. Participants will be told the purpose of the research. I will not be deceiving them before, during, or after the study.
Privacy	From the "Risks" section above To ensure the confidentiality of the data, neither the names of districts nor the names of the participants will be disclosed in my research paper. Instead, I will label each school district with a letter (District A, District B, etc.). In my own paperwork, the names of participants will be kept anonymous and separated from the actual interview data. This will ensure that the district, person, and information cannot be identified as the data is reported. To ensure the privacy of my participants, when I write about individuals, not only will pseudonyms be used, but I will not use describing characteristics of the person. In addition, during the interview, I will not be asking personal questions or identifying personal information.

Concordia University, Saint Paul
Protocol Form
Research Involving Human Subjects

Reviewed Classification Requested: _____ Exempt __X__ Expedited
_____ Full Review

Type of Submission: __X___ New _____ Renewal*

*Renewal refers to projects which are ongoing (i.e. class related project which are conducted each semester or annually). The principal investigator must inform the Human Subjects Review Committee regarding the projects being implemented on an annual basis.

1. Project Title: **Bridging the Gap Between the Pre-K System and the K-12 System: A Practitioner's Guide to Developing a Unified Foundation for Pre-K to Grade 3 Learners**

2. Principal Investigator:

   Name **__Lisa_____Ann_____Willman_____**
   first ***middle*** ***last***

   Phone # _XXX-XXXX_____

   College/Department:

   Department of Doctoral Studies in Education

   Investigator's Address:

   XXXXX

   CITI Training #: 56014632 *(please attach a copy of your CITI completion report)*

3. Check one:

   ____ Faculty/staff research
   ____ Fellow/post-doctoral research
   ____ Undergraduate student research *(Please indicate program:_____)*
   _X__Graduate student research *(Please indicate program: Educational Doctoral)*

If the principal investigator is a student, please complete the following:

Advisor's Name: Jana Hennen-Burr

Address: XXXX

Telephone: XXX-XXX-XXXX

4. Please list co-investigators:

_____N/A_____

_____

5. Approximate length of project: ___0___ ***years*** _____6_ ***months***

[Protocol must be renewed annually]

6. Will this research be conducted at a location other than CSP?

____ No __X__ Yes: *If yes, attach approval documentation when needed*.

Identify the location of the study: All interviews will be conducted virtually, in an online setting

7. Subjects (*please estimate <u>numbers</u>*):

____ patients as experimental subjects
____ patients as controls
____ minors (under 18) not English
____ CSP students/faculty/staff
____ pregnant women, unborn children
____ mentally disabled respondents
____ prisoners
_10_normal adult volunteers
____ persons whose 1st language is
____ physically challenged
____ other _____

8. Procedures: *[Attach relevant materials such as questionnaires, interview schedules, consent forms, etc.]*

____ survey questionnaire
_X__ interview, phone - in person
____ medical or other personal records
_X__ filming, taping, recording
____ participant observation
____ investigational device
____ placebo
____ payment of subjects
____ observation
____ anthropological fieldwork

____ psychological intervention ____ incomplete disclosure of purpose

____ blood, tissue, secretia samples _X___ consent and/or assent forms

____ other _____

9. Do you have any apparent conflicts of interest in this research?

_X___ No ____ Yes: *If yes, attach completed Conflict of Interest (COI) Disclosure Form*

10. I have read and understand the Belmont Report on Ethical Principles and Guidelines for the protection of human subjects. This is available at http://www.hhs.gov/ohrp/regulations-and-policy/belmont-report/

_____Lisa A. Willman_____ __5/28/23_____

Principal Investigator's Signature Date

11. While students may be listed as a principal investigator, advisors shoulder the responsibility for students engaged in independent research. The IRB expects that advisors have reviewed the proposal, and accept the roles and responsibilities required to oversee the conduct of this research, prevent harms to subjects, and foster benefits to the subjects.

_jana Hennen-Burr_____5-31-23_____

_____

Advisor's Signature Date

Appendix B

IRB Approval

Concordia
UNIVERSITY-SAINT PAUL

TO: [redacted]
CC: Humans Subjects Review Committee File

The IRB Human Subjects Committee reviewed the referenced study under the exempt procedures according to federal guidelines 45 CFR Part 46.104d (2): 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).

Study Number: 2023_057
Principal Investigator: Lisa Willman
Title: Bridging the Gap Between the Pre-K System and the K-12 System: A Practitioner's Guide to Developing a Unified Foundation for Pre-K to Grade 3 Learners

Classification: _X_ Exempt ___Expedited ___ Full Review

Approved _X_

Approved with modifications: ____ [See attached]

Declined ____ [See attached]

Upon receipt of this letter, you may begin your research. Please remember that any changes in your protocol need to be approved through the IRB Committee. When projects are terminated or completed, the IRB Committee should be informed to comply with Department of Health and Human Services (HHS) Regulations, Title 45 Code of Federal Regulations Part 46 (45 CFR 46). If you have questions, please call the IRB Chair at (651) 641-8723.

Stephen D. Ross
Signature, Chair Human Subjects Review Committee

June 13, 2023
Date

Appendix C

Recruitment Letter

[Sample Email for Participants]

Dear XXX,

My name is Lisa Willman, I am a doctoral student at Concordia University, St. Paul. I am also a principal at XXXX in XXX School District. XXX Elementary is an early education to Grade 2 building.

You are invited to participate in my doctoral research study entitled *Bridging the Gap Between the Pre-K System and the K-12 System: A Practitioner's Guide to Developing a Unified Foundation for Pre-K to Grade 3 Learners*. I am reaching out to you and other Early Education Managers in Minnesota public school districts to see if you would be willing to talk with me during one 1-hour interview conducted over Zoom.

As a current education leader, I understand how busy this time of year is—ending one school year while preparing for the upcoming school year. Yet because I think the perspectives of Early Education Managers are particularly valuable in how we align services from early education to the primary elementary grades, I hope that you will nevertheless be willing to speak with me about the shift bridging the gap between the pre-K system and the K-12 system. I hope that your insights can ultimately help inform future practice, policy, and direction within districts across the state.

If you are interested in participating in this study, please respond to this email to let me know. I will then provide you with additional information about the study, answer any questions you have, and work with you to schedule an interview at a time that is convenient for you. I want to emphasize that I will keep your participation completely confidential and that your decision to participate will have no impact on your relationship with your school, your district, or my university. I hope you consider sharing your experiences and insights with me, and we look forward to hearing from you!

Sincerely,

Lisa A. Willman

Lisa A. Willman
Doctoral Candidate, Concordia University, St Paul

Principal

Appendix D

Consent Form

CONCORDIA UNIVERSITY, ST. PAUL
Informed Consent for a Research Study

Study Title: Bridging the Gap Between the Pre-K System and the K-12 System: A Practitioner's Guide to Developing a Unified Foundation for Pre-K to Grade 3 Learners

You are invited to participate in a research study entitled *Bridging the Gap Between the Pre-K System and the K-12 System: A Practitioner's Guide to Developing a Unified Foundation for Pre-K to Grade 3 Learners*. The study is being done by doctoral student Lisa Willman of Concordia University, Saint Paul. Below you will find answers to the most commonly asked questions about participating in this study. Please read this document and ask any questions you may have before agreeing to participate in this study.

Why are the researchers doing this study?

My research is designed to address a missing link for practicing leaders. The purpose of my study is to gain an understanding of how public-school districts in Minnesota have aligned their pre-K and K-12 systems to create collaborative, multisystemic change and develop a unified organization. My motivation for this research is to contribute to the development of a practical guide public school districts can use to integrate their pre-K systems and programming with their K-12 system.

Through interviews with Early Education Managers in large, suburban public-school districts in Minnesota, I will investigate the reasons their districts chose to go forward with aligning pre-K and K-2 programs, what processes they used to implement the work, their successes, challenges, and recommendations.

This research will attempt to answer my overarching research question: *How do public school districts in Minnesota align their pre-K system to their K-12 system to create collaborative, multisystemic change and develop a unified system?* As the researcher, I will seek "to systematically develop a theory that explains process, action, or interaction on a topic" (Creswell & Poth, 2018, p. 84). Using the data I gather, I hope to develop a theory and process for articulating the two systems so they are integrated for the betterment of the students, staff, and families for whom they serve.

My research sub questions will enable me to delve into the many strands involved in integrating two separate systems under the same umbrella of a public school system. These questions are:

1. What explanations do school leaders provide as they describe their catalyst to aligning their district pre-K and K-12 systems?
2. How do public school leaders start and continue the work to align their pre-K and K-12 systems?
3. What are the challenges and successes for districts as they align their pre-K and K-12 systems?

4. What recommendations do the participants have for school districts in doing this work?

I believe at the district level; educational leaders must guide their systems and staff as they navigate a web of political policies and mandates, all while still understanding and following current research in teaching, learning, and leadership. Through my dissertation research, I hope to provide a navigational map for educational leaders who want to start or continue the work of creating strong pre-K and early elementary alignment for their own district.

Why have I been asked to be in this study?

The participants selected for this study are Early Education Managers (exact position titles may vary, depending on the district) in public school districts in Minnesota.

If I decide to participate, what will I be asked to do?

If you meet the criteria and agree to be in this study, you will be asked to do the following:

- Participate in one semi-structured interview between June and August. Each interview will last approximately 60 minutes. Interviews will be conducted via Zoom and will be recorded. This will allow the researcher to transcribe the interview for analysis.

What if I decide I don't want to be in this study?

Participation in this study is completely voluntary. If you decide you do not want to participate in this study, please feel free to say so and do not sign this form. If you decide to participate in this study but later change your mind and want to withdraw, simply notify us, and you will be removed immediately. You may withdraw from this study at any point; however, once data is aggregated into larger themes, withdrawal of your interview data will no longer be possible as it will have informed the analysis. Your decision of whether or not to participate will have no negative or positive impact on your relationship with Concordia University, St. Paul.

What are the risks (dangers or harms) to me if I am in this study?

The risks associated with participation in this study are minimal.

What are the benefits that may happen if I am in this study?

When the research is complete, I will offer participants any findings, recommendations, or guides that come from the research via email, if they are interested.

Will I receive any compensation for participating in this study?

No compensation is available for participating in this study.

What will you do with the information you get from me, and how will you protect my privacy?

I will make every effort to de-identify all data. When I write up the study, I will only use pseudonyms for participants, their schools, and the district. I will only use pseudonyms in interview transcriptions and memos I write. I will delete audio or video recordings once the interviews are transcribed. I will keep all digital data on password-protected computers. I will keep one document that links the real names to the pseudonyms—this document will be deleted when the study is complete.

Could my information be used for future research?

No, your data will not be used or distributed for future research purposes, even if de-identified, without gaining further consent from you.

Are there possible changes to the study once it gets started?

If, during the course of this research study, I learn about new findings that might influence your willingness to continue participating in the study, I will inform you of these findings.

How can I get more information?

If you have any questions, you are welcome to ask them before you sign this form. Please also feel free to contact me a XXXXX. If you have other questions or concerns regarding the study and would like to talk to someone other than the researcher, you are welcome to contact the Concordia University Institutional Review Board at irb@csp.edu.

Please keep a copy of this form for your records.

Statement of Consent:

I consent to participate in the study and agree to be video-recorded.

My signature indicates that I have read this information, my questions have been answered, and I am at least 18 years of age.

_____

Signature of Participant Date

_____

Printed Name of Participant

Signature of Researcher Date

Appendix E

Interview Question Matrix

Research Sub Question	Interview Question
Background/Introduction	I read on your website that your district has approximately XXX number of students and is located in XXX part of Minnesota. Can you provide me with other important information about your district that is relevant to the work of bridging your pre-K system to your K-12 system? ● How many early education students do you have enrolled in the district? ● What type of choices do you offer for your early education classes (full-day, half-day, full-week, 2-3 times a week, etc.)? ● How does your 4-year-old enrollment compare to your kindergarten enrollment district-wide?
What explanations do school leaders provide as they describe their catalyst for aligning their district pre-K and K-12 systems?	Describe the catalyst(s) for aligning pre-K and K-12 systems in your district. ● For example, was it a person/department that started the work, or was there a specific reason behind the work? In some districts, a specific person has a passion for the work, and in other districts, it may evolve from an equity-driven lens or an achievement/opportunity gap lens.
How do public school leaders start and continue the work to align their pre-K and K-12 systems?	How did your district start the work of aligning your pre-K and K-12 systems? ● Can you explain the steps that you went through as you started this work? ● Can you tell me about the people/positions that were involved in

	the work at the beginning of this process? For example, who was important to get on the team for the work to run smoothly/effectively? ● What challenges, if any, did you initially encounter as you worked across departments? Can you tell me about the people/positions that are involved in the work as you continue this work? ● Did you find you needed to involve more or different people/departments as you continued the work? Describe how you continue the alignment work in your district. ● How would you describe the difficulty or ease of continuing the work? Are there specific practices/areas that require more work or collaboration than others?
What are the challenges and successes for districts as they align their pre-K and K-12 systems?	What are the greatest challenges/barriers to the alignment of your pre-K and K-12? What are the greatest successes/moments of pride for the alignment of your pre-K and K-12?
What recommendations do the participants have for school districts in doing this work?	If other school districts were coming to you for advice, what recommendations would you give them?
Conclusion	Is there anything I haven't asked that you think it would be important for me to know or wish I had asked? Is there anything you would like to clarify from this interview?