

A quantitative study of early intervention and the impact on social emotional learning

by

Christopher Daniel Lowe

B.S., Kansas State University, 2004

M.S., Baker University, 2008

AN ABSTRACT OF A DISSERTATION

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Abstract

The purpose of this study was to determine how an Early Learning Program supported social emotional learning and skill development for students preparing to enter kindergarten. Further, the study examined if teacher-led activities focused on early learning skills aligned to the Kansas Early Learning standards resulted in increased evidence of social emotional skills. The proxy used to determine this relationship was the existence of behavior referrals during the kindergarten school year in a mid-western state school district. Thus, the study's design aimed to determine if an early intervention program equipped pre-kindergarteners with the social and emotional skills necessary to be successful in kindergarten as measured by behavior referrals.

Descriptive statistics and logistical and multiple regression models with control were utilized to determine relationships between participation in the early learning program. Relationships studied included participation in the program and referrals measured at quarterly intervals during the kindergarten year. Relationships were also studied when controlling for race, gender, students receiving free and or reduced meals, students with disabilities, and English Language Learners. This study correlated the Kansas Early Learning Standards to each of the behavior codes utilized by The School District. This correlation allowed the researcher to determine if a specific social emotional skill showed a stronger relationship to participating students compared to peers who did not participate in the program. The three specific skills taught were kindness, feelings, safety and learning.

The results of this study found participation in the three-week Early Learning Program did have a statistically significant relationship to social emotional learning compared to peers who did not participate in the program. When reviewing the data at quarterly intervals during the kindergarten year, results showed a significant relationship for the second quarter and third

quarter and no significant relationship for the first quarter and fourth quarter. The study also found a relationship for Hispanic, Asian, and White students in addition to English Language Learners. The information and relationships observed can be used to support future programing, areas of focus for additional research, and expansion of early intervention funding.

Keywords: social emotional learning, social emotional skills, behavior referrals, early learning programs, pre-kindergarten

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Approved by:

Co-Major Professor
Dr. Jia Liang

Approved by:

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Dr. Donna Augustine-Shaw

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Dedication

This work is dedicated to Paige, Jack, and Charlie. I challenge you to find the joy in life, surround yourself with friends and family, and always take care of one another.

Chapter 1 - Introduction to the Research Study

Introduction to the Problem

Every parent aspires to create the best situation for their child. When it comes to creating the best educational setting for children, when is the best time to start? In Kansas, children can attend all-day kindergarten at their local public school if they turn five years old by August 31st of the current school year. Though the law currently determines mandatory schooling to begin at age 7, should this be the first time students are introduced to a formal learning or school environment? Is this the recipe for the best educational setting for children? Is kindergarten too late to begin supporting academic and social emotional learning for our youngest learners? In 2021, only 21% of three through six-year-olds were enrolled in a public preschool program (Fabina et al., 2023). This statistic is startling. Extensive literature states when students engage in a quality early intervention program, they are more likely to have a successful transition to kindergarten (Entwisle, 1995), experience positive impacts on student learning (Conger et al., 2019; Duke University Center for Child and Family Policy, 2017; Duncan & Magnuson, 2011; Wechsler et al., 2016), and experience positive impacts later in life in the areas of education, the labor market, and overall health (Duncan & Magnuson, 2011; Duncan & Magnuson, 2013; Jones et al., 2015; Thompson, 2018). With this information in mind, there is an opportunity for parents to create the best educational situation for their children prior to kindergarten.

Why is pre-kindergarten an ideal time to support children? It could be because “neuroscientists have estimated that the brain grows at an astounding rate over the first several years of life, reaching about 80 percent of its ultimate adult volume by age three” (Duke University Center for Child and Family Policy, 2017, p. 3). The first several years of life are a critical period for a child’s brain development, and pre-kindergarten programs have an

opportunity to maximize this important time. Pre-kindergarten programs often teach early literacy and numeracy skills as part of their curriculum to support learning. Early intervention in pre-kindergarten not only supports students as they transition to kindergarten and positively impacts their learning, but it also proves beneficial to children later in life. How does early intervention support the social emotional skill development for students before entering kindergarten? How important is social emotional learning for our youngest learners?

In the area of social emotional learning, only 40% of students enter school with the skills needed to be successful in kindergarten (Ashdown & Bernard, 2012). In addition, teachers and administrators identify supporting students' social emotional needs as a critical priority (US Department of Health and Human Services, US Department of Education, & US Department of Justice, 2000). Parents also consider social interaction skills more important than academic skills when entering kindergarten (Kim et al., 2005). Over half of the students who enter kindergarten are missing necessary social emotional skills, and parents, teachers, and administrators have identified this as an important area to create the best educational opportunities for our youngest learners. The literature is clear about the impacts of early intervention and social emotional learning.

Heckman et al. (2013) suggests that when pre-kindergarten students can learn social emotional skills, the skills persist beyond elementary school. Prior to kindergarten, children need opportunities to begin cognitive and social development in a thriving, engaging, and language-rich environment (Ramey & Ramey 2004). Magnuson et al. (2007) conducted research and found early intervention has increased benefits for disadvantaged students and suggested an increase in funding to support pre-kindergarten programs for disadvantaged students. Research also suggests students with pre-kindergarten experiences focused on social emotional learning

have a smoother transition to kindergarten than peers without those experiences (Berlin et al., 2011). Evidence suggests one way to create the best educational situation for children is to participate in a high-quality pre-kindergarten program.

What is missing from the literature is information regarding the social emotional impact of pre-kindergarten programs that connect social emotional learning skills with early learning state standards. More information is necessary regarding early intervention and social emotional learning where specific learning standards are identified as either a strength or area of improvement. This research determined if teacher-led activities focused on early learning skills aligned to the Kansas Early Learning standards resulted in an increased or improved evidence of social emotional skills. The proxy used to determine this relationship was the existence behavior referrals during the kindergarten school year. The purpose of this study was to determine if an early intervention program can equip pre-kindergarteners with the social and emotional skills necessary to be successful in kindergarten as measured by behavior referrals. The information and relationships observed can be used to support future programming, areas of focus for additional research, and potentially expand early intervention funding.

While the idea of supporting social emotional learning is not a new topic, it has become a frequent topic of conversation and concern for educational systems following the impact of Covid-19 and the global pandemic. The global pandemic made an impact on educational systems due to the high death rates associated with the virus as well as lockdowns across businesses and educational settings (Lewin, 2020). On March 17th, 2020, Laura Kelly, Governor of Kansas, announced all schools would close and cease in-person instruction until May 29th, 2020 (Scott, 2020). This announcement made Kansas the first state in the nation to close all schools by executive order (Scott, 2020). The executive order forced school districts to adapt quickly and

create remote learning options for students. Administration, students, and caregivers had to adapt to a new learning model which involved students learning from a location other than school with a combination of asynchronous learning and live instruction via interactive video conferencing. In Kansas, the 2020-2021 school year was also full of varying learning models. The Kansas Department of Education (KSDE) provided guidance to schools which included three learning models (2021). The first learning model was on-site learning where students would be at school with or without social distancing or mitigating measures in place. The second learning model was referred to as hybrid. In this learning model, students could be working at school part of the time and at home learning remotely other times. The third learning model was completely remote. In this model, all students would only learn from home. School districts in Kansas had to work quickly to create solutions for what teaching and learning would look like within these three learning models. At the same time, school staff, students, and families navigated ever-changing health and safety guidelines to keep learning environments safe during the Covid-19 global pandemic.

Due to upheaval in the family unit, daily work and employment status, on-going health crises, and teaching in technology-based environments, the visible needs of social emotional stability in students skyrocketed. While social emotional learning opportunities have been in place in educational systems, the need for direct, social emotional instruction is now more critical than ever following the world-wide disruption of school closures and remote learning. It is important to children, communities, and the state that the social, emotional, and academic needs of all students are addressed through quality educational practices. Early intervention programs are one way to support students before entering kindergarten. Early interventions and

their ability to support students academically and socially emotionally will be explored in detail in chapter 2.

Background

The School District created a program in 2014, referred to as the Early Learning Program. This application-based, three-week summer program was created to help prepare incoming kindergarten students for the transition to kindergarten. When the Early Learning Program was established in 2014, it was offered at three elementary schools. In 2018, due to an increase of applications and the value observed in the district, the program was offered at 19 of the 34 elementary schools in The School District. Since 2014, the program has supported over 1,700 students. The Early Learning Program components include: 1) A teacher to student ratio 1:10 or better, 2) when applicable, the student's kindergarten/first grade teacher will be his/her Early Learning Program teacher, 3) a focus on social competencies, 4) a focus on language and math skill development, 5) parent engagement events, and 6) exposure to the learning environment and routines of elementary school (The School District, personal communication, 2024).

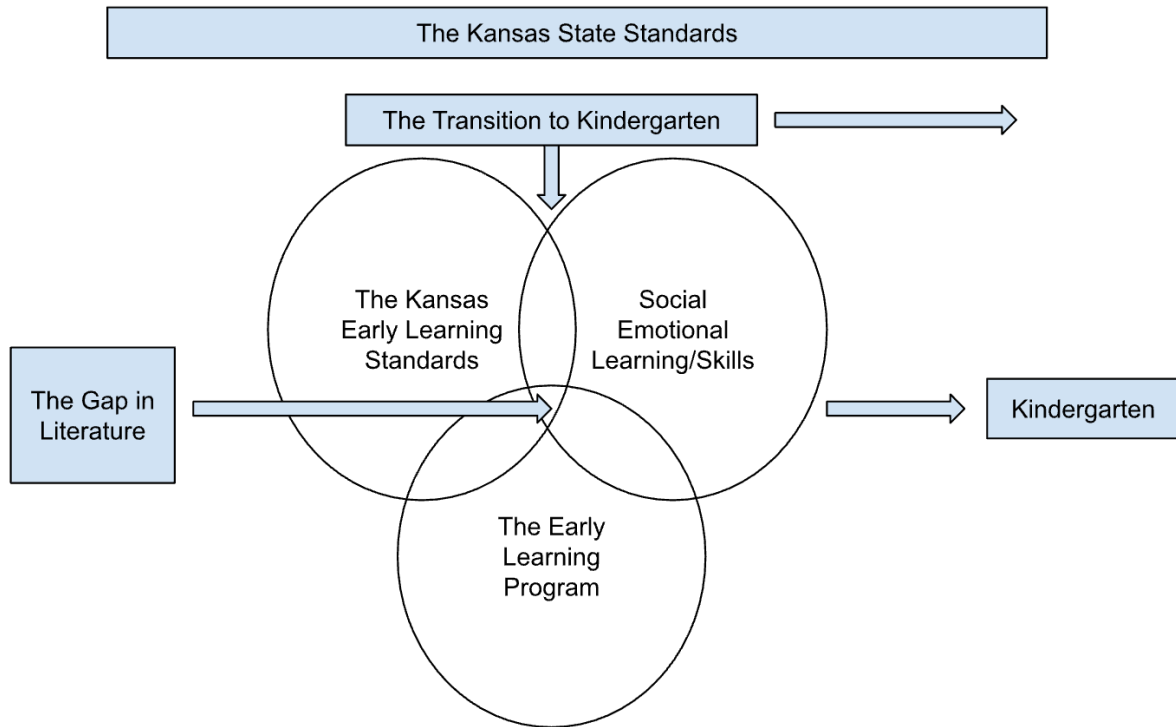
Statement of the Problem

The School District has collected data on the academic impact of the Early Learning Program for almost ten years, which will be explored more in chapter 3. This data showcases the positive impact on reading and math during the first six months of the kindergarten year for students participating in the three-week program. The researcher's goal was to determine if a relationship existed for students participating in the Early Learning Program and social emotional skill acquisition during the kindergarten year. Social emotional learning skills were the construct for this study. Specifically, the researcher looked at social emotional learning skills

taught during the Early Learning Program. However, behavior referrals were the proxy being utilized to determine the significance of the relationship between participation in the Early Learning Program and social emotional learning. This research was needed as The School District currently does not have data to show the impact this program has on social emotional development or social skill acquisition. The School District will use the information gained from this study to better support the students who will be participating in the Early Learning Program in the future. The information learned impacts future curriculum design and implementation regarding social emotional learning. This information could also support other school districts as they work to prepare students for kindergarten. As referenced earlier, the pandemic has had a measurable impact on student learning. It is important to the researcher to see if the Early Learning Program is one way The School District can better support students as they make the transition to elementary school. As stated previously, information regarding the social emotional impact of pre-kindergarten programs that connect social emotional learning skills with early learning state standards is missing in the literature. More information is necessary regarding early intervention and social emotional learning where specific learning standards are identified as either a strength or area of improvement. The researcher will develop the connections between discipline referrals, social emotional behaviors, and the Kansas Early Learning Standards (Adhima et al., 2024) in chapter 2.

Figure 1.1

Visual Representation of the Gap in Literature



Research Question

The School District utilizes a student management system to enter behavior referrals. This study compared the behavior referrals entered for students who participated in the Early Learning Program to peers who did not participate in the program during the kindergarten school year. As referenced previously, social emotional learning is defined as, “the process of developing friendship skills, self- regulation, and self-awareness” (Burchinal et al., 2022, p. 65). For this study, the social emotional learning skills identified were safety and learning, kindness, and friendship.

The research questions addressed in this study included:

1. Is there is a relationship between participation in the Early Learning Program and social emotional learning skills?

- a. Is there a relationship between participation in the Early Learning Program and social emotional learning skills captured at quarterly intervals (quarter 1, 2, 3, and 4) through the kindergarten school year?
2. Is there a relationship between participation in the Early Learning Program and social emotional learning skills when controlling for race, gender, free and reduced lunch (low socio-economic status), students with disabilities, and English Language Learners?

By answering these questions, the researcher gained an increased understanding of how the Early Learning Program supports social emotional learning and skill development for students as they prepare to enter kindergarten. This research provides additional areas of growth and further refinement for the curriculum and instruction for social emotional readiness for students as they prepare to enter kindergarten. Additionally, this will inform future areas of focus for kindergarten teachers.

Research Purpose

This research study was to determine if participation in the Early Learning Program improved the transition for students entering kindergarten. Specifically, did students who participate in the Early Learning Program demonstrate improved social emotional skills? A gap in the literature exists as this study will utilize behavior referrals as a proxy for measuring social emotional learning, while connecting the behavior referral categories to the Kansas Early Learning Standards. While a study was conducted to see if students who participated in pre-kindergarten received fewer behavior referrals, no other study has explored participation in pre-kindergarten learning by examining the impact of behavior referrals during the following year in kindergarten, with a correlation to specific early learning standards (Nold et al., 2021). This study examined whether students enrolled in the Early Learning Program in The School District

have statistically significant differences on the number of student behavior referrals compared to peers who did not participate in the Early Learning Program. It specifically reviewed student disciplinary incidents as reported in the student management system for The School District. The researcher reviewed this disciplinary data for students who participated in the Early Learning Program from 2014-2023 compared to those who did not. Data from this study was disaggregated by the following variables: 1) race, 2) gender, 3) free and reduced lunch (low socio-economic status), 4) students with disabilities, and 5) English Language Learners. The data set created was from all students in the Early Learning Program and peers in the same elementary kindergarten classrooms where at least six or more students also participated in the Early Learning Program.

Rational for Focusing on Social Emotional Readiness

The researcher seeks to add to the literature by exploring the impact a three-week early intervention summer program has on the social emotional readiness for incoming kindergarteners. The Early Learning Program offered by The School District has academic evidence to support the positive impact the program has on students who participate; however, evidence is lacking to show if this program also positively impacts social emotional growth or readiness of students. Specifically, there is no information specific to social emotional learning proving this early learning summer program positively impacts students who participate. This is important as students who have transitional opportunities are more likely to be successful in the educational setting (Entwisle, 1995). This research is extremely important as it can add more information to the field to make better decisions about when, how, and what educators and policy makers prioritize when it comes to our youngest learners. Further, the information gained from this research could help The School District to make informed decisions regarding the

Early Learning Program. This information could then be shared with other school districts to best support their learning communities. The School District is also focused on closing the achievement gap. Evidence shows students from low-income families may enter kindergarten with fewer skills than their higher-income peers (Lee, 2002). Supporting early intervention may be another way to reduce the achievement gap. Finally, students who enter school ready to learn can do so at a faster rate than peers (Duncan et al., 2018). This research could impact our youngest learners and set them up for success as they begin their educational journey.

Limitations and Assumptions

A potential limitation of this study could be the number of student behavior referrals collected during the kindergarten year from 2014-2023, which may impact the strength of the relationships observed within the data. Another potential limitation of the study is the accuracy of the behavior data in the student management system. This is because behavior referrals and the selection of behavior codes are at the discretion of teachers and ultimately entered and or edited in the student management system by the building administration. Further, due to the age of the students when this data is collected, it is possible some administrators and teachers may not fully implement The School District behavior guidance.

Operational Definitions

The following terms were used in this study:

Social-Emotional Learning (SEL): “the process of developing friendship skills, self-regulation, and self-awareness” (Burchinal et al., 2022, p. 65).

Social-Emotional Skills: “refer to the ability to share and cooperate with friends, to identify and regulate emotions, and to deal with problematic social situations” (Burchinal et al., 2022, p. 65).

For this study, the specific emotional skills identified are safety and learning, kindness, and friendship.

Kindergarten Readiness: “term used to describe the desired age-appropriate language, math, and social-emotional skills for children to have acquired at kindergarten entry” (Dore, 2021, p. 903).

Early Learning Program: Program started in 2014 and continues currently in The School District. This is a three-week program where students are invited to participate to support kindergarten readiness (The School District, personal communication, 2024)

Kansas Early Learning Standards: Standards from the Kansas State Board of Education (KSBOE) which outlines the skills students should attain from birth to kindergarten updated on April 15, 2024 (Adhima et al., 2024).

Asynchronous Learning: Learning takes place from a location of a student's choice and instruction is available for students at a time which works best for the student (Johnson et al., 2022).

Nature of Study

This quantitative research study utilized student behavior data collected in a student management system used by The School District. It will determine whether the Early Learning Program impacted social emotional skills and, in turn, created fewer behavior referrals for participating students. Students in the Early Learning Program are enrolled for three weeks during the summer before kindergarten starts. The Early Learning Program has been in place for ten years. The researcher analyzed kindergarten behavior referrals of participating students from 2014 to 2023. This data was then compared to peers of the same age from the same school sites who did not participate in the program.

Summary

The School District created the Early Learning Program in 2014 to help prepare students for the transition to kindergarten and their kindergarten year. The program has grown in the number of students served and in the number of locations offered. Busing service and free meals have been added at times to the program to help increase participation as well as to meet the needs of students and families. The School District documented student growth in mathematics and literacy for students participating in the program; however, no information exists on how this program supports social emotional learning for the students who participate in the program. The researcher utilized behavior referrals entered during the kindergarten year from 2014-2023. The data set created was from all students in the Early Learning Program and peers in the same elementary kindergarten classroom where at least six or more students also participated in the Early Learning Program. The researcher looked for trends and comparisons across students from the same cohort that did and did not participate in the Early Learning Program. This study addresses a gap in literature as this research was needed to explore the correlation between early learning skills and state early learning standards while students participate in a three-week early learning program. The information gleaned from this study has the potential to impact other districts, programs in other states, and provide additional evidence to support early intervention at the national level.

Chapter 2 - Review of Literature

Purpose of Schools

The review of literature provides important background for the rationale and justification for this research study. The chapter first reviews schools' purpose to provide a historical education perspective. Next, the researcher provides a rationale for why social emotional learning has an important place in education. Additionally, early intervention programs will be explored and information about how those programs have impacted students and their transition to elementary school and beyond. In addition to early intervention programs, chapter 2 will share similarities and differences between publicly funded early intervention programs and privately funded programs. Finally, chapter 2 concludes with correlations between social emotional learning and academics, and social emotional skills and behavior referrals. At the conclusion of this chapter, the reader will have a sound understanding of why early intervention programs are in place and why social emotional instruction is needed. The reader will also understand why more information was needed on the Early Learning Program and how it supported students as they transitioned to kindergarten as measured by behavior referrals.

This chapter begins with a background on the original purpose of schooling. Before exploring the potential impact of the Early Learning Program on incoming kindergarten students, the original purpose of schooling must be explored. According to Barber, the fundamental purpose of school is to create a sense of citizenship and a model for how students live and function in a democracy (Barber, 1994). Public schools in the United States were originally established to help promote a democratic society (Barber, 1994). The function of schooling has shifted from Barber's definition as the literature review is developed to portray post-pandemic and current reality in today's schools. This is especially true regarding pre-kindergarten learning

opportunities. The disruption to opportunities for quality early childhood learning during and after the Covid-19 pandemic created an even larger departure from Barber's (1994) definition of school's purpose. Today, schools have additional supports which go well beyond Barber's (1994) definition of schools' purpose. These supports may include social workers, counselors, career and guidance counselors, and school nurses. Some schools have mental health agencies or clinics providing support to students during the school day (Grossman et al., 2007). Given the historical perspective on the purpose of school, it is important to explore and understand the advantages, examples, and purpose of early intervention for students prior to kindergarten relative to this research study.

Social Emotional Learning

Based on results from the National Household Education Survey, "social-interaction skills were reported as being more important for kindergarten readiness than were academic skills" (Kim et al., 2005, p. 3). Using data from over 10,000 parent surveys, the authors found parents believed students "should be ready for social interaction before acquiring basic academic skills" (Kim et al., 2005, p. 12). The survey results make it clear that parents and caregivers view social emotional skills and learning as a priority when it comes to early education and intervention.

It is important to investigate and understand why parents in this survey felt social emotional interactions are needed as a prerequisite for academic learning (Kim et al., 2005). In the United States, it is estimated one in ten children suffer from mental illness, and it is estimated one in five children receive mental health services (US Department of Health and Human Services, US Department of Education, & US Department of Justice, 2000). When schools were originally created, it would not have been possible to predict the level of social emotional needs

that would evolve as the country grew and time passed. For over 20 years, the nation has been unable to meet the mental health needs of students (US Department of Health and Human Services, US Department of Education, & US Department of Justice, 2000). According to Maslow (1943), the most basic needs, such as food, water, and the need to feel safe, must be met before a person can be ready to learn, thrive, or find self-actualization. In addition, research clearly links early social-emotional development, emotional control, self-regulation, attention, and appropriate social skills, to school readiness (Green et al., 2012). As a society, it is imperative to recognize the purpose of school extends beyond academic growth. Public schools must support the whole child and provide early intervention on social emotional skills prior to kindergarten.

Next, the researcher will explore further evidence over the past twelve years to support the continued need to address the social emotional learning of elementary students. In 2012, The National Research Council Institute of Medicine reported only 60% of children enter school with the cognitive skills needed to be successful, but only 40% have the social-emotional skills needed to succeed in kindergarten (Ashdown & Bernard, 2012). In 2014, Macy et al. reported 21% of children have a mental health disorder. Students struggling with mental health are more likely to have academic challenges and less likely to graduate high school (Capp, 2015). It is also reported 70% of students do not receive the mental health support they need (Moore et al., 2022). According to elementary principals who serve students from kindergarten through eighth grade, supporting the increasing number of students with mental health issues is a primary concern (Franks, 2018). Finally, it is reported, in the United States, about 17% of students from the age of two to eight have a mental health, behavior, or developmental disorder (Nygaard et al., 2023). Based on this information, almost one fourth of the students in classrooms today have a mental

health disorder and fewer than half of kindergarteners have the social emotional skills needed to be successful. Early intervention and instruction around social emotional learning is needed to support students.

Recognizing students in the school setting have unmet social emotional needs is a critical first step to help support the students in our classrooms. The mental health of students and youth in the United States was mentioned for the first time by the White House in June of 1999 (US Department of Health and Human Services, US Department of Education, & US Department of Justice, 2000). Following this, in the year 2000, the Office of the Surgeon General hosted a conference focusing on children's mental health (US Department of Health and Human Services, US Department of Education, & US Department of Justice, 2000). At this conference, it was shared, "[m]ental health is a critical component of children's learning and general health" (US Department of Health and Human Services, US Department of Education, & US Department of Justice, 2000, p. 8). It was also stated, "fostering social and emotional health in children as a part of healthy child development must...be a national priority" (US Department of Health and Human Services, US Department of Education, & US Department of Justice, 2000, p. 8). All students do not receive the mental health services they need which in turn creates students who are unable to establish social emotional skills and competencies (Lazarus & Sulkowski, 2011). In 2006, a report from President George W. Bush's New Freedom Commission on Mental Health stated mental health services should be implemented at schools as they are historically connected to the community (Mills et al., 2006). In this same report, it was stated the implementation of more comprehensive mental health services will translate into better academic and social success for students (Mills et al., 2006). As a nation, it is clear supporting the mental health and social emotional needs of our youth is not a new topic. Even with national attention to this issue for

over twenty years, however, we continue to see students struggle in our classrooms. Data from the 2012-2015 National Survey on Drug Use and Health found not all schools have resources to support the mental and social emotional health of all students (Ali et al., 2019). Further, the type of support available to students can vary greatly by school. It was also noted that only about one third of students who seek support for mental or social emotional needs do so in a school setting (Ali et al., 2019).

To address the needs of students in Kansas, the Kansas State Board of Education (KSBOE) adopted five state outcomes for all students who graduate high school. Two of the state outcomes important to this study are social-emotional growth and kindergarten readiness, (Kansas State Department of Education, 2024). The KSBOE views social-emotional growth and kindergarten readiness as critical components to student success. Both outcomes identified by the KSBOE support the rationale and the need for this study. These state outcomes also support the work at the national level which started in 1999. The outcomes from the KSBOE provide further evidence that our youth need more than just academic skills to be successful (Blair & Raver, 2015). There is information on students in Kansas regarding their academic success as reported on state assessment data. When reviewing data from KSDE (Kansas Building Report Card, 2022), the performance of third grade students tested in Kansas, considered below grade level, was the highest in 2021 and 2022 in both reading and math. This fact was revealed when reviewing Kansas State Assessment data for third grade students from 2017 to 2023. This researcher believes the increase in students performing below grade level is a direct result of the pandemic. It would be safe to also predict a similar relationship exists between student's social emotional skills and school readiness. This is especially the case when students' learning environments were drastically altered by the pandemic (Lewin, 2020).

Kansas is not alone in its desire to address social emotional readiness. All 50 states and the District of Columbia now have clearly defined preschool, social emotional learning standards (Eklund et al., 2018). Moreover, each state clearly identified what each student should be able to know and do in relation to social emotional readiness (Eklund et al., 2018). Interestingly, only 11 states had freestanding SEL standards K-12 and the inclusion of SEL was more common to be imbedded within other subjects such as health education (Eklund, et al., 2018).

It is encouraging to know all states have SEL standards at the preschool level, and 11 states have stand-alone SEL standards K-12. This could be a positive sign our nation is shifting more towards early intervention. This notion is supported by research as the “preschool period is deemed as an optimal time to identify and reduce early signs of problems, before they develop into permanent patterns” (Poulou et al., 2018, p. 363). When looking specifically at our preschool population, 76% of children in the United States are being supervised by someone other than a guardian (Capizzano et al., 2000). Of the 76% of preschool aged students being supervised by a non-guardian, about 32% are enrolled in some sort of center-based childcare or preschool (Capizzano et al., 2000). A center-based childcare or preschool would be a location outside of a child’s residence where they are learning alongside peers. This is a considerable number of children in a center-based childcare facility and an optimal time to begin teaching and developing students' social and emotional readiness. With 32% of preschool aged students in center-based program, there is a substantial opportunity to support the social emotional needs of future elementary students.

According to The Collaborative for Academic, Social and Emotional Learning (CASEL), “five core social and emotional competencies that are important foundations for young people’s well-being: self-awareness, social awareness, self-management, relationship skills, and

responsible decision making” (Ashdown & Bernard, 2012, p. 397). CASEL has identified these core areas as foundational aspects to address when looking at social emotional learning. The key social-emotional skills children need as they enter school include self-confidence, the capacity to develop positive relationships with peers and adults, concentration and persistence on challenging tasks, an ability to effectively communicate emotions, an ability to listen to instructions and be attentive, and skills in solving social problems (National Research Council Institute of Medicine, 2000). Further, being able to utilize the skills above allows students to work together with peers and solve problems. The ability to work in a learning environment with peers on the skills needed to grow and be successful connects directly to this study's theoretical framework, sociocultural theory. Students need to possess social skills to promote academic success and later life success (Parlakian, 2003). Children need high quality care to promote social emotional development and overall positive mental health (Parlakian, 2003). As previously stated, the fundamental purpose of school was to help support a democratic nation by fostering citizenship and stewardship (Barber, 1994). The need to regulate emotions is present in classrooms today and can be supported by instruction on social emotional skills. When students are working in a classroom, they need to be able to comprehend the new information while managing their social behaviors with peers and adults (Blair et al., 2018). Students need to be socially emotionally equipped in today’s classroom to prepare for learning (Blair et al., 2018).

Further evidence of the correlation between academic preparedness and social emotional learning was found in a meta-analysis of 213 elementary and secondary school-based programs (Durlak et al., 2011). These programs were designed to promote social-emotional competence in children from age five to 18. The results found the utilization of SEL programs does increase students' competencies on the social skills or the social competencies targeted (Durlak et al.,

2011). It was also found students exposed to SEL programs increased their prosocial behaviors, had less conduct and internalizing problems, while increasing academic outcomes such as grades and achievement assessments (Durlak et al., 2011). This study validates that social emotional factors for children are not separate from the academic and cognitive abilities of students. Students who are better able to manage their emotions and work with peers and adults are in a better position to participate in a learning setting. According to Blair and Raver (2015), social competencies and school readiness, "... are, in fact, interrelated with and integral to aspects of child cognitive ability, primarily executive functions and the regulation of attention that are centrally important for learning in school" (p. 714). When students are set on a positive trajectory with quality pre-kindergarten support focused on social emotional learning and academics, they are more likely to be successful later in life (Blair & Raver, 2015).

In Kansas, a clear focus exists on the importance of social-emotional learning and kindergarten readiness. The KSBOE identified kindergarten readiness as one of five outcome areas important to measure school district progress. Furthermore, every school district in Kansas was required to begin utilizing a developmentally appropriate snapshot tool starting in the 2018-2019 school year (Kansas State Department of Education, 2022). The snapshot tool adopted by Kansas was the Ages and Stages Questionnaires, Third Edition (ASQ-3). The ASQ-3 is a tool each school in Kansas must provide to families prior to their child starting kindergarten. The information gained from this tool helps parents gauge where their child's development is in comparison to expected development at a specific age. The ASQ-3 assesses development in gross motor, fine motor, communication, problem solving, and personal social development (Gulati et al., 2023). Further, this tool allows school districts to have insight on incoming kindergarten students in respect to the five assessed areas.

Advantages of Early Intervention

Public schools in America are designed to support all students, at all ages and levels of development and learning, to perform to the best of their abilities. In the state of Kansas, to be eligible to begin kindergarten, students must be five years old before August 31st of the current school year. The 2014-2015 school year was the first year Kansas started funding all-day kindergarten for all learners (Zeff, 2017). This was another positive step toward further supporting early learning for students.

At the national level, a group of scientists worked together to review data on state funded pre-kindergarten programs (Duke University Center for Child and Family Policy, 2017). This group, the Pre-Kindergarten Task Force, wanted to know how the United States intended to prepare future generations. Specifically, this group wanted to know how the United States will prepare and develop citizens to have the skills needed to meet the demands of the 21st century (Duke University Center for Child and Family Policy, 2017). This inquiry led the task force to explore how well the United States prepares students for learning prior to kindergarten. The task force designed their study to investigate how early intervention impacts students over their lifetime (Duke University Center for Child and Family Policy, 2017). The task force examined two privately funded pre-kindergarten programs: the Perry Preschool Project and the Abecedarian Project (Duke University Center for Child and Family Policy, 2017). The task force stated, “research-based, generously funded efforts can enhance the development of small numbers of low-income children” (Duke University Center for Child and Family Policy, 2017, p. 3). The task force also highlighted the fact that studies have shown students who participate in pre-kindergarten programming are better prepared for kindergarten than peers who did not have

a pre-kindergarten educational setting (Duke University Center for Child and Family Policy, 2017).

Why is pre-kindergarten an ideal time to support children? It could be because “neuroscientists have estimated that the brain grows at an astounding rate over the first several years of life, reaching about 80 percent of its ultimate adult volume by age three” (Duke University Center for Child and Family Policy, 2017, p. 3). Pre-kindergarten learning experiences have been shown to have positive impacts on student learning (Conger et al., 2019; Duke University Center for Child and Family Policy, 2017; Duncan & Magnuson, 2011; Wechsler et al., 2016).

The years prior to kindergarten are a critical time to support brain development and to create positive learning environments to support student learning (Duke University Center for Child and Family Policy, 2017). Nearly 60% of children ages three through five are in a center-based program prior to kindergarten. The other 40% of children are in their home setting with a caregiver, non-parental care provider, or with a relative (Duke University Center for Child and Family Policy, 2017). This report also stated overall, positive academic gains can be found in literacy, language, and math skills for students participating in a pre-kindergarten program (Duke University Center for Child and Family Policy, 2017). There is evidence to support the positive impact of early intervention on brain development and performance of all students, as well as specific evidence to support this impact on students from low-income families. Because of this context, this study will include low-income as a subgroup when reviewing behavior referrals in chapter 4. Further, it was found fewer studies have been conducted related to social emotional skills and or student behaviors for pre-kindergarten programs (Duke University Center for Child and Family Policy, 2017).

Early Intervention and Relationships

Early intervention creates the opportunity for children to build relationships. Educators understand the importance of interpersonal relationships between teacher and child, and they also understand that relationships are impacted by a child's lack of comfort within a new context. Research suggests the ability for students to create relationships with the elementary school they will attend may allow students to begin to understand the expectations and social demands which exist in the new setting (Entwisle, 1995). This understanding and view on transitions connects to the theoretical lens for this research. Entwisle (1995) explains in each new transition for early learners, students must learn how to adjust to the new demands of each unique setting and learn how to respond and interact with those around them. Students with limited opportunities to interact with peers in a familiar environment may alter or delay development (Ladd & Burgess, 1999).

Being proactive and creating intentional transitional opportunities for students can positively impact later life outcomes (Entwisle, 1995). Entwisle (1995) also found early intervention can reduce the likelihood students will be retained or referred for special education. Ladd and Burgess (1999) conducted research to look exclusively at students who exhibit specific behaviors like aggression and withdrawal in a school setting. This study found students who exhibited these behaviors had more difficulties forming relationships with peers and teachers. These behaviors often continued during the elementary school years (Ladd & Burgess, 1999).

Some research suggests creating transition supports beyond those from pre-kindergarten to kindergarten may have greater impact on students. Bogard and Takanishi (2005) suggest creating alignment from pre-kindergarten to third grade may have the greatest impact on student

learning. Early intervention provides teachers, parents, and learning communities the chance to start positive interventions with a child's future school and the opportunity to build positive relationships. Interpersonal relationships and comfortability with an unfamiliar environment are important for all learners. When early connections and relationships are made, students may have an overall more positive school experience (Kraft-Sayre & Pianta, 2000). These findings inform this study's comparison of students who participated in the Early Learning Program and were provided transitional activities and relational support to students who did not participate in the Early Learning Program.

Early Intervention and Family Income

Students learn differently and enter kindergarten with a varying set of skills and life experiences which may or may not have prepared them for learning in a classroom. Because of this, the need for early intervention may be more critical for certain children. Further, how students respond to their lack of preparation for kindergarten, either social-emotionally or academically, may differ depending on the child (Rimm-Kaufman et al., 2000). Kindergarten teachers notice how students respond to their environment. In a survey of kindergarten teachers, it was reported 48% of children in kindergarten had difficulties transitioning and struggled most with following directions and having a lack of academic skills (Rimm-Kaufman et al., 2000).

Duncan and Magnuson (2011) found students in low socioeconomic statuses (SES) are "1.3 standard deviations lower than high-SES children in their kindergarten-entry math skills, nearly two-thirds of a standard deviation below in teacher ratings of attention skills, and one-fourth of a standard deviation worse in terms of teacher-reported antisocial behavior" (p. 2). Early intervention programs such as Head Start target students in low SES settings. Not addressing these discrepancies prior to kindergarten creates a learning gap which may be

challenging to correct. According to Duncan and Magnuson (2011), these gaps are not closed during elementary education. Similarly, the correlation found between persistent math delays as well as behavior problems in early elementary school are even more concerning. These deficits decrease the chance a student will graduate from high school or attend college (Duncan & Magnuson, 2011). This longitudinal study found, “both early achievement and positive behaviors help children negotiate their way through successful completion of high school” (Duncan & Magnuson, 2011, p. 13). The authors further stated these variables contribute to postsecondary enrollment.

Research shows a language rich and responsive environment often found in pre-kindergarten settings can promote language acquisition (Tamis-LeMonda et al., 2001). Heckman and Masterov (2007) stated, “early interventions for disadvantaged young children are more effective than interventions that come later in life” (p. 3). Heckman and Masterov (2007) also suggest early intervention is a more cost-effective means to support students and a benefit to society, compared to later remediation like GED programs and job training. Persistent behavior problems in early elementary school decrease the likelihood of graduation from high school or attendance at college (Duncan & Magnuson, 2011), This research study will shed light on the social emotional learning intervention impact provided to pre-kindergarten students in the Early Learning Program.

Early Intervention and Potential Impact on Society

Beyond the immediate benefits early intervention provides students academically and socially emotionally, it is equally important to explore the potential societal benefits. Karoly & Bigelow (2005) conducted research to determine the long-term cost-effectiveness for early intervention in California with the implementation of a universal pre-kindergarten program.

Karoly & Bigelow (2005) explains the monetary benefit from one year of quality universal preschool program would be around \$7,000 per student, to society. Karoly & Bigelow (2005) suggests this would be a return of \$2.62 per dollar spent on the program, per student. This estimate is under the actual return a universal preschool program would generate, providing benefit to communities, business, property, and overall economic implications (Karoly & Bigelow, 2005). Another study conducted showed there are long-term positive impacts to society and student academic performance when students participate in two years of a quality preschool program (Arteaga et al., 2014).

Research and data should drive the decisions being made at the local, state, and national levels. Early intervention is critical for children, enabling them to acquire skills to complete high school and become productive members of society (Duncan & Magnuson, 2011). Research supports early intervention; yet the United States underinvests in early intervention programs (Heckman & Masterov, 2007). Beyond the statistics and data summarized above regarding the impact of early education, Lasser and Fite (2011) explain, “early intervention prepares the hearts and minds of children to interact successfully with peers in the classroom setting” (p. 173).

Ramey and Ramey (2004) state the evidence of brain research is clear: learning starts early. Prior to kindergarten, children need opportunities to begin cognitive and social development in a thriving, engaging, and language-rich environment. This has a lasting positive impact on their learning (Ramey & Ramey, 2004). Evidence gained from this study may further support the social emotional benefits from students participating in early intervention programs and the broader impact these programs have on society.

Transitional Programs

In the United States in 1964, fewer than 500,000 children were in pre-school settings (Duke University Center for Child and Family Policy, 2017). Fifty years later, in 2014, 4.7 million three- and four-year-old children attended preschool (Duke University Center for Child and Family Policy, 2017). In 2015, 30% of four-year old children were not enrolled in a preschool program, 26% in private preschools, 10% in Head Start, 28% in publicly funded preschool programs, and 6% received subsidies to support childcare (Duke University Center for Child and Family Policy, 2017). Yet, more than three million eligible students were not enrolled in preschool in 2015 (Duke University Center for Child and Family Policy, 2017). As of 2021, 4.1 million preschoolers were enrolled in the United States: an increase of six million enrolled (Fabina et al., 2023). According to a United States Census report, this is the lowest enrollment since 2005 (Fabina et al., 2023). The decrease in overall enrollment in preschool during 2021 is most likely a result of the pandemic. With over four million preschoolers enrolled in the United States, this is an ideal time to engage with families and children to begin supporting early learning and the transition to elementary school. While the focus of this research is not on the total enrollment of students in programs prior to kindergarten, this context is important to the study. As noted in chapter 1, students who do not have a positive start to school at an early age are more likely to be “inattentive, disruptive, or withdrawn” (Ramey & Ramey, 2004, p. 473). With more families enrolling in programs such as the Early Learning Program, information about how such programs support social emotional growth for participating students will serve to inform decisions made by educators, and specifically, in The School District. Understanding the variance between preschool settings, the researcher narrowed the focus for this study to explore publicly funded early intervention programs and private programs. Exploring both publicly

funded and privately funded programs will help the researcher gain insight on the type of funding stream and or programing which may have the greatest impact on social emotional learning. Gaining a better understanding of early intervention program impact, will aid local school districts in making decisions to allocate resources to support the transition to kindergarten.

Publicly Funded Early Education Programs

In 2015, 42 states including the District of Columbia in the United States had public pre-kindergarten programs. These programs served approximately 1.35 million children (Duke University Center for Child and Family Policy, 2017). The availability of pre-kindergarten programs varies greatly from state to state. In 2015, a Kindergarten Task Force found eight states did not offer any public pre-kindergarten programs, and ten programs served fewer than five% of three- and four-year-old's (Duke University Center for Child and Family Policy, 2017). At the same time, 11 states served more than 25% of their three- and four-year-old's and eight states served more than 50% of their three- and four-year old's (Duke University Center for Child and Family Policy, 2017). It was interesting to find that publicly funded programs support about 29% of four-year old's and only around 5% of three-year old's (Duke University Center for Child and Family Policy, 2017). In 2012, 73% of preschool programs serving students not yet in kindergarten received some sort of public funds (Duke University Center for Child and Family Policy, 2017). As mentioned in chapter 1, the pandemic impacted education and enrollment in schools, and this was the same for preschool enrollment. In 2019, 31% of three through six-year-olds were enrolled in a public preschool program and this number dropped to 21% in 2021 (Fabina et al., 2023).

Head Start

The mission of Head Start is to support families in rural or urban regions of the United States to move out of poverty with a focus on social development while teaching the student, parent, and guardian (Wymbs et al., 2023). Head Start is the largest publicly funded preschool program serving more than 750,000 students (Duke University Center for Child and Family Policy, 2017). Head Start was “initiated in 1964 as part of the War on Poverty to offer developmental opportunities to improve the skills, capacities, and school performance of disadvantaged children living in poverty” (Duke University Center for Child and Family Policy, 2017, p. 8). In 2010, Head Start distributed funds to support over 900,000 children (Duncan & Magnuson, 2013). Karoly & Bigelow (2005) suggests long-term studies of Head Start show higher rates of high school completion and college attendance for white students. Karoly & Bigelow (2005) also suggested studies show higher graduation rates for disadvantaged students as well as a lower rate of involvement in the criminal justice system for black students. Overall, Head Start has shown to have a positive impact on participants decades later in areas of education, the labor market, and overall health (Thompson, 2018). Because long-term studies show a positive impact of early intervention, this study will be looking at participants in the Early Learning Program based on race and ethnicity.

The High Scope/Perry Project

The High Scope/Perry Project is a frequently cited early intervention program from the 1960's. The program supported 123 students from 1962 to 1967 (Karoly & Bigelow, 2005). This two-year program specifically targeted low SES populations and African American children in Michigan with lower intelligence quotient (IQ) scores (Duncan & Magnuson, 2011). After the intervention, students in the program went from an average IQ score of 80 to 95. This program

documented the positive support early intervention can have on later success in life (Duncan & Magnuson, 2011). Multiple studies have been conducted on the High Scope/Perry Project as an intervention program with lasting effects for participants. Barnett (1996) found for every dollar spent on the program, by age 27, there was a seven-dollar savings to society because of the reduced crime rate and higher employment rate. At age 40, students who participated in the program had higher earnings, higher employment rates, and less involvement in the criminal justice system (Karoly & Bigelow, 2005). The High Scope/Perry Project was designed to support students in low SES populations as well as African American students. This research study also aims to examine the impact of early intervention on students from low SES populations, African Americans, and other disadvantaged populations.

The Abecedarian Project

The Abecedarian Project is frequently referenced as an early intervention program that supported students from infancy to kindergarten or for three years in elementary school. This project also used a control group for comparison. The preschool group was supported with curriculum while the elementary group was provided strategies to increase parent involvement and to focus on increased individualization in the classroom setting (Campbell et al., 2002). This project also supported students for an entire school day, five days a week. The Abecedarian Project provides helpful context for this study's comparison between students who participated in the Early Learning Program and those who did not.

The Chicago Child-Parent Centers

The Chicago Child-Parent Centers (CPC) is another highly referenced and regarded program due to both high quality and data supporting the effectiveness of the interventions (Karoly & Bigelow, 2005; Reynold et al., 2011; Varshney et al., 2022). The CPC program was

established in 1967 and continues to support students today in Chicago and has expanded to support children in other Midwest cities (Reynold et al., 2011; Varshney et al., 2020). By the 1980's, there were over 24 CPC programs across Chicago (Richardson et al., 2017). The program is publicly funded, and it implements low teacher to student ratios (Karoly & Bigelow, 2005; Richardson et al., 2017). Evaluations of students who participated in the CPC program as children starting at age three until the end of third grade show positive effects later in life as well as increased school readiness compared to peers not participating in the program (Karoly & Bigelow, 2005; Reynolds et al., 2011; Richardson et al., 2017). Statistically significant measures found later in life included increased reading achievement, a lower retention rate, reduced special education, lower incidents of child abuse and neglect, lower likelihood of involvement in the juvenile justice system, and a greater likelihood of graduating high school (Karoly & Bigelow, 2005; Karoly 2016). It was interesting to note that studies on the CPC program show students' gains are more impressive after the completion of the first year of early learning programing versus the second year (Karoly & Bigelow, 2005). When looking at the early intervention program regarding student gains, Karoly & Bigelow (2005) suggested early intervention gains after just one-year were higher than those in year two. This is important to this study because of the three-week length of the Early Learning Program: a shorter intervention program may be a better return on investment.

Early Intervention in Texas

Texas offers a pre-kindergarten program at the state level to students who are considered at-risk. Texas considers students at risk if the family qualifies for free or reduced meals, have limited English, are homeless or have unstable housing, are in foster care, have a parent in active military, or have a parent who was injured or killed on duty (Andrews et al., 2012). This program

started in the 1985-1986 school year and in 2011, the program provided support for six% of three-year-old children and 52% of four-year-old children in the state (Andrews et al., 2012). This is a state-run program which has been in operation for almost 40 years. However, according to Andrews et al. (2012), rankings and outcomes measured by the National Institute for Early Education Research, the program is not considered to be high quality. The program was not considered high quality due to the larger class sizes, availability of additional support such as vision and hearing screenings, and a higher staff to student ratio (Barnett et al., 2011). Using student data for five cohorts participating in the pre-kindergarten program; however, research found the program did show positive effects for certain groups of students (Andrews et al., 2012). The results were determined based on students who participated in the pre-kindergarten program in Texas and how these students scored on a third-grade achievement test. Andrews et al. (2012) found students who were limited in English proficiency or economically disadvantaged scored higher than peers who did not participate in the program. Further, students who participated in the Texas pre-kindergarten program were less likely to be retained or referred to special education (Andrews et al., 2012). This work provided evidence to suggest even a program that is not considered high quality, according to The National Institute for Early Education Research, can still have positive outcomes for certain groups of students (Couchenour & Chrisman, 2016). This study will include participants who are English Language Learners, are limited in English, or are economically disadvantaged.

Privately Funded Early Education Programs

Research on the impact of privately funded early education programs was more challenging to locate. This could be because data regarding publicly funded early education programs is more accessible to researchers. For example, 73% of pre-kindergarten programs

receive some sort of federal funding (Duke University Center for Child and Family Policy, 2017). Another potential reason is the limited availability of information regarding private early intervention programs. Based on information in the Early Childhood Longitudinal Study in 2010, 11% of students entering kindergarten for the first time were enrolled in private programs (Mulligan et al., 2012). This equates to almost 400,000 kindergarteners in private kindergarten programs while over 3.5 million students were enrolled in a public kindergarten setting across the nation. Based on the information provided in the Early Childhood Longitudinal Study, students in privately funded kindergarten classrooms outperformed public kindergarten students in reading and mathematics (Mulligan, et al., 2012). Additional research regarding private school programs found, “regular parent volunteers were most prevalent in private schools, where over a third of parents regularly helped in the school compared with about a fifth of parents whose children attend public schools” (Rathbun & Hausken, 2001, p. 4). Federal funding for pre-kindergarten programs is significant. Similarly, the setting for this study also receives federal funding for early intervention. This data will provide evidence of impact and contribute to the gap in research in this area.

Success of Early Education Programs

After reviewing research on both publicly funded and privately funded early intervention programs, it is clear students who participate in learning opportunities prior to kindergarten are more successful in their transition to kindergarten (Lazar & Darlington, 1982). Next, this literature review will focus on the overall positive impacts of early intervention. Specifically, the researcher will review early intervention frameworks and early intervention programs with a focus on increasing students' social emotional readiness.

Research supports that early intervention sets a strong foundation for learning for all students (Welchons & McIntyre, 2017). This is bolstered by research conducted by the Pre-Kindergarten Task Force. The task force found early intervention can “boost children’s school readiness, start children on trajectories of academic and life success, and produce a return on investment over time” (Duke University Center for Child and Family Policy, 2017, p. 19). It is equally important to understand how well the nation is performing related to early intervention programming and implementation. It can be challenging to unpack pre-kindergarten programs and varying funding streams. Collectively, states have not conducted research on the efficacy of their own publicly funded programs. Of states offering publicly funded programs, the research on their efficacy varied: 21 states have yet to conduct any evaluations, two states have conducted short term studies, five states have conducted long term studies, and 11 states have conducted both short-term and long-term studies (Duke University Center for Child and Family Policy, 2017). While long-term evaluations of public or private pre-kindergarten programs may not be available by every state, the philosophy behind early intervention programs remains consistent. These programs aim to provide students with a supportive, engaging, and emotionally safe environment that will promote positive learning and growth (Duke University Center for Child and Family Policy, 2017).

Early education and intervention programs provide opportunities for more successful student transitions and success (Lazar & Darlington, 1982). Researchers independently implemented early intervention programs in the 1960s. Data derived from 11 different pre-kindergarten programs was examined for potential long-term effects. Their research specifically looked for the impact programs had on low-income students (Lazar & Darlington, 1982). The research studies found “early education programs for children from low- income families had

long-lasting effects in four areas: school competence, developed abilities, children's attitudes and values, and impact on the family” (Lazar & Darlington, 1982. p. 6). Investing in early education has shown to have a positive impact on later life outcomes, improving further educational pursuits, as well as level of income (Duncan & Magnuson, 2013; Jones et al., 2015). Welchons and McIntyre (2017) conducted research on the impact of pre-school and correlation to the kindergarten transition for students with and without disabilities in social emotional learning. Using information gained from parents and preschool and kindergarten teachers, students with “higher levels of adaptive behavior and fewer problem behaviors in preschool significantly predicted positive kindergarten transition outcomes in our sample of children with and without disabilities” (Welchons & McIntyre, 2017, p. 91). This information is critical to this study as the researcher is specifically looking for relationships between early intervention and social emotional learning.

Research also suggests early intervention programs which focus on creating an environment similar to expectations in kindergarten help prepare students for social emotional and relational skills necessary to be successful in the school setting (Eckert et al., 2008). This study will examine an early learning program prior to the start of kindergarten with structures and expectations like those in kindergarten.

Early Intervention Program Framework

Kraft-Sayre and Pianta (2000) created an approach to support the transition to kindergarten. This work was completed for the National Center for Early Learning and Development, specifically titled, the Kindergarten Transition Project. This research is relevant as it supports the importance of early intervention. Kraft-Sayre and Pianta (2000) created five guiding principles for states, districts, and schools to use as they support the transition to

kindergarten. These principles are explained to better understand and interpret the data generated by this research study.

The first principle is to foster relationships as resources. Students who have a supportive culture may experience an easier transition to kindergarten (Kraft-Sayre & Pianta, 2000). Kraft and Pianta (2000) describe the multiple relationships and interactions students experience in preschool such as peers, teachers, school, parents, and community. These relationships and interactions are experienced in kindergarten, but often occur with different peers, teachers, and the broader school environment. The second principle is to promote continuity from preschool to kindergarten. Creating a “bridge” of support for students can support a positive transition to kindergarten (Kraft-Sayre & Pianta, 2000, p. 7). The third principle is to focus on family strength. The fourth principle is to tailor practices to individual needs, and the fifth principle is to form collaborative relationships.

These principles are important to understand as they are all incorporated in the Early Learning Program. The Early Learning Program was designed to support the creation of relationships, which is why it is housed at local neighborhood schools with the staff members students will most likely interact with in kindergarten. Utilizing the neighborhood elementary school allows students to begin to understand how to navigate in a new setting as well as the locations of places such as the gym, lunchroom, and library. The Early Learning Program allows educators a chance to work with families and students prior to kindergarten and allows educators to begin to identify potential needs and supports students may need once they start kindergarten. Having this information ahead of kindergarten allows educators a chance to begin working on plans of support while creating positive relationships with families.

The Kindergarten Transition Project also contained information from early childhood educators. In a survey asking 3,600 kindergarten teachers what they do to help support the transition to kindergarten, the three most common responses were: talk to parents, write a letter to parents, and host an open house event after school starts (Kraft-Sayre & Pianta, 2000). Kraft-Sayre and Pianta (2000) suggest transitional activities should take place prior to the kindergarten year to achieve the most benefit for students. These efforts require extensive planning, but the authors acknowledge that creating earlier activities helps form relationships and ease students' transitions (Kraft-Sayre & Pianta, 2000). Further, if problems do arise during kindergarten, already established relationships help when addressing those concerns (Kraft-Sayre & Pianta, 2000). The Early Learning Program implements family-focused activities throughout each of the three weeks, before kindergarten starts, to foster positive relationships. This research examines differences between participants and non-participating students.

Implementing transitional programs that support social and emotional growth has been supported by research to better prepare students for kindergarten (LoCasale-Crouch et al., 2008). Specifically, programs with proactive outreach to parents, families, and children increase communication and familiarity with the social demands of kindergarten, have demonstrated positive effects on school readiness as well as on later academic success (LoCasale-Crouch et al., 2008). LoCasale-Crouch et al. (2008) conducted research to look for specific transitional activities between pre-kindergarten and kindergarten to examine interventions or activities with the greatest impact on students. LoCasale-Crouch et al. (2008) looked at nine practices for transitioning to kindergarten. The practices included: pre-kindergarten students visiting a kindergarten classroom, pre-kindergarten teacher visiting kindergarten classrooms, kindergarten teacher visiting pre-kindergarten classrooms, spring orientation for pre-kindergarten students,

spring orientation for pre-kindergarten parents, school-wide activity for pre-kindergarten students, individual meetings with parents, written records of pre-kindergarten students shared with kindergarten teachers, and contact with pre-kindergarten teachers about curriculum or specific students. The authors found when pre-kindergarten teachers had the opportunity to collaborate with the kindergarten teacher about specific students and curriculum, the kindergarten teachers' perceptions of students' social competence increased (2008). Further, LoCasale-Crouch et al. (2008) found contact between pre-kindergarten and kindergarten teachers about students had the greatest impact on the kindergarten teachers' perceptions of students. The study shows programs and intervention strategies which promote intentional and individualized opportunities to prepare children for the transition to kindergarten have a positive impact and lead to a more successful transition (LoCasale-Crouch et al., 2008). While collaboration between pre-kindergarten and kindergarten teachers were shown to have the most positive impact on kindergarten transition, this was not a common practice. The Early Learning Program used in this study embeds communication among teachers and is foundational to the program's goals. In this program's case, the Early Learning Program teacher is assigned as the child's kindergarten teacher when possible. The work of LoCasale-Crouch et al. (2008) also demonstrated transitional activities that involve students contribute to smoother transitions into kindergarten. In the Early Learning Program, students are in kindergarten classrooms and are led by district staff members. This study is important to see if these types of intentional transitional activities support a smooth transition to kindergarten as measured by behavior referrals.

Cook and Coley (2017) used data from the Early Child Longitudinal Study to determine what transitional practices were implemented by kindergarten teachers. This study included approximately 4,900 students. Cook and Coley (2017) asked kindergarten teachers to report if

they used any of the seven transitional practices prior to student entry into kindergarten. The seven practices involved calling or sending information home, providing orientation for parents prior to the start of school, scheduling preschoolers to spend time in the kindergarten classroom prior to school, allowing parents and children to visit kindergarten prior to the start of school, home visits, shortening days at the beginning of the school year for kindergarteners, and staggering school entry for kindergarteners (Cook & Coley, 2017). The authors found three of the seven practices, when implemented, supported the transition to kindergarten. They found parent contact, children visiting the classroom, and parents visiting the classroom were the most common transitional activities reported. It was also reported teachers with more experience and those teaching in private schools were found to implement more transitional practices. Cook and Coley (2017) attempted to associate transitional practices with social and academic success using information from teacher and parent reports. They concluded the more transitional activities kindergarten teachers reported, the higher students were rated with prosocial skills with peers (Cook & Coley, 2017). Further, implementing parent and student orientation events translated to higher reading and math scores (Cook & Coley, 2017). Overall, it was reported the more transitional activities implemented translated into a better kindergarten transition for students and increased prosocial skills for students (Cook & Coley, 2017).

Another study surveying kindergarten teachers found 95% of teachers reach out to parents *after* school starts (Pianta et al., 1999). This same study found transitional practices that involved teachers reaching out to parents or children *before* kindergarten were the least common practice. Rous et al. (2010) utilized a national survey of 2,434 preschool teachers to determine what type of transitional activities are most often used for students transitioning to preschool. The national survey included 25 practices preschool teachers could use to support the transition

to preschool. The results of this study were similar to the transitional practices for kindergarten. The study found a range of 22% to 95% of teachers reported utilizing at least one of the 25 transitional strategies. 70% of the preschool teachers reported using 12 of the 25 strategies included in the survey (Rous et al., 2010). The most widespread practice found in this study, as reported by preschool teachers, was talking to parents after preschool had started (Rous et al., 2010). Pianta et al. (1999) found universally, schools have a long way to go to ensure a smooth transition for children as they move from preschool to kindergarten.

Transitional practices not only support students to ultimately achieve a smoother transition to kindergarten, but they also are critically important for students at risk. Students who participate in transitional practices and are considered low income, have been shown to benefit the greatest in terms of academic success (Schulting et al., 2005).

Early Intervention Programs Measuring Social Emotional Impact

As referenced throughout this literature review, sources exist that highlight student participation in pre-kindergarten or early intervention programs. These studies prove the positive impact on cognitive test scores (Conger et al., 2019). Specifically, research conducted at Rutgers University found state-funded pre-kindergarten programs to have a positive impact on academics for pre-kindergarteners (Barnett et al., 2005). Students who participated in a state-funded pre-school program demonstrated 31% vocabulary growth in one year scored higher on a test of early math skills and had a better understanding of print materials (Barnett et al., 2005). However, it is more challenging to find specific research focusing on the social emotional impact of pre-kindergarten or early intervention programs on early learners.

Research conducted by Winsler et al. (2008) on early intervention programs for three- and four-year-old children found “center-based childcare programs in the community may be

beneficial for fostering school readiness within ethnically diverse children in poverty, and that public school pre-kindergarten programs may show even greater gains in some areas” (p. 314). Winsler et al. (2008) focused research on comparing students participating in center-based childcare in the community, Title 1 subsidized public pre-kindergarten programs, and fee-supported public pre-kindergarten programs. His research focused on social emotional strengths as measured by a teacher and parent report using the Devereux Early Childhood Assessment (Winsler et al., 2008). He investigated students in all three programs and determined that all students, regardless of program type, increased their social emotional strengths. Fee supported public school pre-kindergarten programs showed the highest effect size both by teacher and parent reports based on a pre-post assessment (Winsler et al., 2008).

In 2010, California passed a law which stated that to start kindergarten, students needed to turn five on or before September 1st of the upcoming school year. In doing so, California also created a new grade level called transitional kindergarten (TK). This grade level was specifically created for students born between December 2nd and September 2nd (American Institutes for Research, 2015). Transitional kindergarten was created because nearly one fourth of kindergarteners were at the age of four when starting the school year. This program has data to show that students who participated in the program improved pre-literacy and literacy skills, improved mathematical skills, and “outperformed their peers on their ability to regulate their behavior, remember rules, and think flexibly” compared to peers who didn’t participate in the program (American Institutes for Research, 2015, p. 3). Overall, participants in transitional kindergarten were “better prepared for kindergarten than were similar students who did not attend TK, independent of age. [The study] found that TK broadly benefited enrolled students, improving their reading and mathematics outcomes as well as their executive function”

(American Institutes for Research, 2015, p. 4). This transitional program proved more successful for students enrolled in the program than those not enrolled in it. Another study evaluating the impact of TK reviewed student results from 2013-2014 and 2014-2015. The study found participation in TK provided an advantage at the beginning of kindergarten in the areas of early literacy, mathematical skills, and language skills (Manship et al., 2017). It was reported students who participated in TK were more engaged in kindergarten than peers who did not participate in TK (Manship et al., 2017). Interestingly, this study found no difference between students who participated in TK and those who did not regarding reported behavior incidents (Manship et al., 2017).

Magnuson et al. (2007) conducted research to look at the cognitive and social impact of prekindergarten programs. Magnuson et al. (2007) found pre-kindergarten had “few lasting positive effects on advantaged children’s skills and persisting adverse effects on their behavior but yield[ed] larger benefits for disadvantaged children” (p. 30). His research suggested the need for a national increase in funding to increase access to prekindergarten programs for disadvantaged students. The research noted that pre-kindergarten classrooms employ certified teachers where there is an academic classroom focus, in turn, creating the potential for more behavioral problems (Magnuson et al., 2007). The researchers suggested that if a classroom has a stronger focus on instruction, less attention is given to creating a positive social climate. While this research suggests attending pre-kindergarten may result in more behavior problems in first grade, it did not indicate an increased likelihood of being retained in kindergarten (Magnuson et al., 2007). It is important to this researcher's study that there is reference to the need for more attention toward social emotional and development skills.

The Stars Program

The Stars program was implemented in four schools and included 100 participants. Created by a teacher and a parent, the goal of this program was to support social and behavioral skills (Berlin et al., 2011). The program was designed to support social competence, problem solving, awareness of emotions, and self-control (Berlin et al., 2011). The program also included a focus on pre-literacy and pre-numeracy skills as well as teaching school routines such as circle time, lining up, taking turns, and how to take care of personal items (Berlin et al., 2011). For the first three weeks, this program held a parent event each week with a specific focus. Topics were provided ahead of time to parents and the materials needed for the event. The Star program was held over four consecutive weeks for 5.25 hours each day prior to kindergarten. During the program registration, mothers were asked to complete baseline data on 29 behavior problems using a four-point Likert-type scale. During the first three weeks of kindergarten, teachers were asked to complete three questionnaires regarding behavior, academics, and daily routines using a five-point Likert-type scale (Berlin et al., 2011). Within the first three weeks of kindergarten, Star participants' mothers were asked to answer questions about how their child was liking school (Berlin et al., 2011). One group of students was assigned to their Stars program teacher as their kindergarten teacher. This allowed for a control group of Stars students. Based on this research, having the same teacher for kindergarten as the student did for the Stars program had no impact on learning. However, the Stars program “indicated a positive and statistically significant main effect of random assignment to the program, indicating that kindergarten teachers rated program children as having made a more favorable transition to kindergarten—socially—than control children” (Berlin et al., 2011, p. 7). Researchers found girls who participated in the Stars program had a better transition socially compared to the control group.

Researchers stated, “results indicated that teacher ratings for children's adaptation to kindergarten routines were higher only for those children who had the same teacher for the program and kindergarten” (Berlin et al., 2011, p. 8). Overall, the program reported better social adjustment to kindergarten as reported by teachers as well as statistical significance for girls’ social transition to kindergarten (Berlin et al., 2011). The Stars program's goals targeted the social and transitional aspects of formal schooling. Looking at the academic impact of the Stars program, researchers noted that no effect was observed. Researchers found no change in mothers' reports of their child liking school, and no change in student reports of liking school. Evidence from the Stars program suggests, however, that having the same teacher during an early learning program as in kindergarten may have positive outcomes on routines and procedures in the classroom.

Preschool PATHS

Another preschool program researched is the Preschool PATHS curriculum. This curriculum is designed to support behavior and emotional concerns and designed to increase students' social competence (Hughes & Cline, 2015). This curriculum contains 44 lessons designed to be delivered weekly. Lessons are designed in units. Each unit consists of a theme, such as friendship (Hughes & Cline, 2015). To measure the effectiveness of this curriculum, Hughes and Cline (2015) implemented the program within three different preschool settings. Teachers implementing the program were provided training. Pre-intervention and post-intervention data was collected. Each of the three schools implemented different interventions: one group implemented the full Preschool PATHS curriculum, one group implemented a modified version, and one group did not implement any of the Preschool PATHS curriculum and followed the school's regular interventions for social and emotional learning. Based on the results of their research, Hughes and Cline (2015) found the group receiving the Preschool

PATHS curriculum increased their social behaviors, emotional knowledge, and self-regulation. Based on their research, the group receiving the Preschool PATHS curriculum outperformed the group who did not receive any of the Preschool PATHS curriculum on all three measures (Hughes & Cline, 2015).

Jump Start

Harris (2010) researched Jump Start, a similar program to the Early Learning Program, which is the focus of this study. Harris' (2010) research focused on a literacy and social emotional program called Jump Start. Her research focused on 74 students from low-income preschool settings, allowing for a control group and students in the same classroom receiving the Jump Start curriculum. Her focus aimed to see if the Jump Start curriculum had an impact on literacy and social emotional gains. Overall, she found students receiving the Jump Start curriculum made significant gains in social emotional outcomes and literacy. The Jump Start curriculum is designed to be an add-on service or program to any preschool environment. The focus of this curriculum is to pair college students with preschool students one-on-one in their preschool environment.

Bridge to Kindergarten Program

The Bridge to Kindergarten program was created by a school district looking to support students before they enter kindergarten. The School District provided this free program and specifically targeted students with no formal pre-school learning. A study was conducted to see if adding a self-regulation program could increase kindergarten readiness (Duncan et al., 2018). Specifically, this study compared kindergarten readiness acquisition for students who received instruction on self-regulation compared to students in the program who did not receive specific instruction on self-regulation. The study utilized a program called Red Light Purple Light

(RLPL) to teach specific self-regulation skills. RLPL used 16 lessons, each 20-30 minutes long, to teach executive functioning (Duncan et al., 2018). The study implemented the RLPL intervention to one cohort of students in the Bridge to Kindergarten program while the comparison group did not. Results of the study showed students who participated in the Bridge to Kindergarten Program and received the RLPL intervention demonstrated improved performance on self-regulation, math, and literacy skills during the fall of kindergarten (Duncan et al., 2018). The gains made by the students who received the RLPL intervention continued to see “greater than expected growth” for the months following the program (Duncan et al., 2018, p. 24).

Summer Success Program

The Summer Success program was created in response to a lack of summer programs available for students' entering kindergarten. This program targeted students from low-income families without previous pre-kindergarten learning experiences (Khan et al., 2017). The Summer Success Program focused on instruction in math, literacy, social-emotional competencies, and motor skills. This program was offered during the summers of 2016 and 2017. For both years, the program was offered as a full-day or a half-day for four weeks prior to the beginning of kindergarten. Twenty-four students in total were enrolled over the two years, with 17 of the students considered at-risk (Khan et al., 2017). Curriculum was created to support the four core areas of the summer program (math, literacy, social-emotional, and motor skills). Pre-tests and post-tests were used to measure the four-week program's effectiveness. At the conclusion of the program, the results showed statistically significant gains in all four instructional areas. Since the focus of this research was to see if the Early Learning Program has a positive impact on social emotional learning, it was important to note the specific social emotional areas measured by the Summer Success Program. These SEL areas included

instruction on taking turns, labeling and discussing emotions, providing simple directions for regulating behavior, practicing applying rules to new situations, providing visuals for new rules, and providing structure and routine. The Early Learning Program teaches similar skills to those taught in the Summer Success Program. Those skills are learning the routines of school, kindness, rules, and feelings.

Correlation Between Social and Emotional Skills and Academics

For students to be prepared for kindergarten, programs must address the whole child. Specifically, the social emotional and academic learning needs of students must be addressed to prepare all students for the transition to kindergarten (Bowman & Donovan, 2001). Research shows that students who have not mastered the ability to self-regulate or understand the social skills needed in school, will have a more challenging time transitioning to kindergarten (McClelland et al., 2006). Research also suggests that early school social emotional related skills have a positive impact on students' ability to perform in mathematics and reading between kindergarten and third grade (McClelland et al., 2006). Even more important to this work is that McClelland et al. (2006) found teacher reporting of learning-related skills strongly indicated later academic success. Learning related skills include self-regulation, responsibility, independence, and cooperation (McClelland et al., 2006).

Social emotional competence and learning related skills are connected to student learning. Further, students who enter kindergarten with more social competence tend to create more friendships and have higher levels of peer acceptance (Ladd et al., 1999). These are critical skills for all children entering kindergarten. When students start school with social emotional difficulties, they will carry these difficulties throughout their early educational years (Campbell et al., 1985). Without a solid foundation of social emotional competencies there is an increased

possibility for aggressive behaviors in children (Goldstein et al., 2001). When students lack social emotional competencies, it has the potential to disrupt a classroom environment, and one aggressive student can elicit aggressive behaviors in others as a response (Goldstein et al., 2001).

Social Emotional Skills and Behavior Referrals

To answer the research questions posed in this study, the researcher provided literature to support the idea that teaching and reinforcing social emotional skills in pre-kindergarten learning programs have an impact on more successful transitions to kindergarten. Next, the researcher explored if intentional instruction on social emotional skills and competencies impacts student behavior as measured by behavior referrals. While this researcher is studying the relationship of social emotional instruction and behavior referrals during the kindergarten year, the researcher has also included studies looking at middle and high school. Including middle and high school studies provides context for this research. It is important to understand the implications of gaps in social emotional learning and skills, and the effect those gaps have as students get older. Research around student outcomes in middle and high school can inform decision-making around early intervention.

Social Emotional Skills and Behavior during Middle School and High School

O'Connell (2017) conducted research to see whether a correlation existed between the proactive teaching of mindfulness, a component of social emotional learning, and the number of behavior referrals in a middle school setting. After a two-year comparison of behavior referral data, O'Connell (2017) found no evidence of a statistically significant difference between behavior referrals after implementing mindfulness as part of a positive behavior intervention implementation.

Research suggests, in another study, that receiving a behavior referral significantly impacts academic achievement in students transitioning from middle to high school (McIntosh et al., 2008). Further, additional evidence shows middle and high school behavior referrals have a stronger correlation to behavior and behavior-related issues (Pas et al., 2011). One study found 21% to 22% of middle and high school students who received a behavior referral had deficits in social skills (Morgan-D'atrio et al., 1996). Some schools and school districts use behavior referrals or behavioral data to make decisions regarding building-level interventions. Research supported the use of behavior referrals to identify students who may need additional screenings to support behavior (Pas et al., 2011). Overall, when looking at middle and high school data, behavior referrals were considered moderately valid and reliable to assess student behavior and future problems (Pas et al., 2011). Additional research was noted as a need to determine effectiveness of behavior referrals at the elementary level as a measure of social emotional competency (Pas et al., 2011).

Social Emotional Skills and Behavior during Pre-Kindergarten

Research was conducted looking at pre-kindergarten classroom quality of instruction to see if social emotional impacts could be measured utilizing social skills assessments. It was concluded that classrooms with instructors who showed warm and caring responses to student needs had students who demonstrated fewer social emotional behaviors such as tantrums, fighting with peers, or getting upset (Tynan, 2016). This research suggests early learning educators who possess warm and caring responses to student needs may decrease the likelihood a student receives a behavior referral.

One study conducted wanted to know whether participation in pre-kindergarten impacted behavior referrals. The study specifically compared students who participated in pre-

kindergarten and those who did not. The study found students who participated in pre-kindergarten programming had less behavior referrals compared to peers who did not participate (Nold et al., 2021). The study also found the students who participated in pre-kindergarten outperformed peers academically who did not have exposure to pre-kindergarten (Nold et al., 2021). The study found male students received more behavior referrals than female students when comparing those who participated in pre-kindergarten (Nold et al., 2021). Further, male students who did not participate in pre-kindergarten had more behavior referrals than male students who participated in pre-kindergarten (Nold et al., 2021). The researchers suggest the difference noted between students who participated in pre-kindergarten and those who did not could be attributed to the social emotional curriculum taught (Nold et al., 2021). It is important to note that the students who participated in this study were all considered disadvantaged as they were living in poverty (Nold et al., 2021). These findings are extremely important to this study as it provides evidence to support that a relationship may exist between an early learning program and behavior referrals in the area of gender.

Summary

Research supports early intervention and the impact on academics. Further, evidence suggests when pre-kindergarten students can learn social emotional skills, the skills linger beyond elementary school (Heckman et al., 2013). Early interventions positively impacting social emotional readiness may be one way to support the academic achievement for all students. As referenced earlier, students with social emotional competencies and skills perform better in reading and math (McClelland et al., 2006). This research aims to determine if a relationship exists between the intentional instruction on social emotional skills in the Early Learning Program and a more successful transition to kindergarten. Research has clearly outlined the

importance of early intervention in supporting students as they transition to kindergarten to increase academic and social emotional competencies (Heckman et al., 2013). This research is critically important and relevant as more information is needed to determine the social emotional impact of early intervention programs (Manship et al., 2017). This research could lead educators to make informed and proactive decisions to support all learners beginning in their earliest years of schooling. This is especially true when the “greatest potential return to public investments in early education may be obtained by increasing disadvantaged children’s enrollment in prekindergarten and by expanding programs located in local public schools” (Magnuson et al., 2007, p. 49).

Chapter 3 - Methodology

Introduction

This chapter will begin by a restatement of the research questions as well as the hypotheses to the research questions. Then the research design, demographic characteristics, and data collection procedures will be explored. This study's purpose was to determine if students who participated in the Early Learning Program experienced social emotional learning as measured by the proxy of behavior referrals. A snapshot of the academic information collected from participants in the Early Learning Program will be presented and explored in this chapter. The School District (pseudonym) started the Early Learning Program in 2014 and has collected academic information on the participants each year. The data collected on the academic benefits have supported the continuation of this summer early intervention program. By the end of the 2023 school year, over 1,700 students have participated in the Early Learning Program. The Early Learning Program focuses on reading, mathematics, and social emotional learning. The program design also provides incoming kindergarteners the chance to meet teachers and familiarize themselves with their future school. For some students, their Early Learning Program teacher will become their kindergarten teacher.

Before this study, an analysis of the social emotional impact of the Early Learning Program was unavailable for review by The School District. More information was needed on how the Early Learning Program supported the social emotional development and impact for participating students. No information was available to illustrate how this program, implemented in 2014, supported and prepared students for the social emotional demands of elementary school, specifically, the transition to kindergarten. The KSDE has listed social emotional readiness as one of the five state outcomes for measuring student progress in Kansas (Board Vision, 2024).

With social emotional growth being identified as one in only five state outcomes, the information gained in this study can support further programs aimed to prepare students for kindergarten across the state and or nation.

Research Questions

The School District utilizes a student management system to enter behavior referrals. This study compared the kindergarten behavior referrals entered for students who participated in the Early Learning Program to peers who did not participate in the program. As referenced in chapter 1, social emotional learning is defined as, “the process of developing friendship skills, self- regulation, and self-awareness” (Burchinal et al., 2022, p. 65). For this study, the social emotional learning skills identified were safety and learning, kindness, and feelings.

The research questions to be addressed in this study include:

1. Is there is a relationship between participation in the Early Learning Program and social emotional learning skills?
 - a. Is there a relationship between participation in the Early Learning Program and social emotional learning skills captured at quarterly intervals (quarter 1, 2, 3, and 4) through the kindergarten school year?
2. Is there a relationship between participation in The Early Learning Program and social emotional learning skills when controlling for race, gender, free and reduced lunch (low socio-economic status), students with disabilities, and English Language Learners?

Answering these questions will allow the researcher to understand how the Early Learning Program supports social emotional learning skills and development for students as they prepare to enter kindergarten. Social emotional learning skills are the construct under study for this research. Behavior referrals (both types and prevalences) are the proxies being used to

measure the three subconstructs of the construct of social emotional learning skills as these referrals are correlated to each of the three specific Early Learning Program social emotional skills (safety and learning, kindness, and friendship).

Hypotheses to Research Questions

Alternate hypotheses were formed for all research questions and informed by literature (Duncan et al., 2018; Heckman et al., 2013; Nold et al., 2021; Schulting et al., 2005). The literature suggested participation in transitional activities improves the transition to kindergarten especially for students from low-socioeconomic backgrounds and for disadvantaged students (Magnuson et al. 2007). The literature suggests students from disadvantaged situations (free and or reduced lunch or English Language Learners) may show greater gains with early intervention while gains may not be as prevalent for students considered advantaged (Schulting et al., 2005; Magnuson et al., 2007). Literature provides evidence that when transitional activities are in place, students are more likely to have a smoother transition (Cook & Coley, 2017; LoCasale-Crouch et al., 2008). Based on the literature review, the alternate hypotheses for the research questions were:

1. There is a relationship between participation in the Early Learning Program and social emotional learning skills.
 - a. There is a relationship between participation in the Early Learning Program and social emotional learning skills as captured at quarterly intervals (quarter 1, 2, 3, and 4) through the kindergarten school year.
2. There is a relationship between participation in the Early Learning Program and social emotional learning skills when controlling for race, gender, free and reduced lunch (low socio-economic status), and English Language Learners.

Research Design

Quantitative Methods

A quantitative research design was utilized for this study. This approach was appropriate for examining the number of behavior referrals by student and school location. A quantitative research design allowed comparison of the existence of behavior referrals and type of referrals from students who participated in the Early Learning Program compared to students from the same school who did not participate in the program. The researcher was able to identify the type of behavior referral categories selected for students as well as the number of behavior referrals and compared this information to students from the same school who did not participate in the program. The goal was to see if a relationship existed for students who participated in the Early Learning Program and their social emotional skill acquisition. The School District implemented the Early Learning Program in 2014 continuing through 2024, with the exception of one year. Table 3.1 shows the year, number of schools, and the number of students who participated in the Early Learning Program.

Table 3.1*Early Learning Program Participation by School*

Year	Number of Schools	Number of Students
2014	3	45
2015	12	196
2016	13	225
2017	19	298
2018	20	337
2019	16	298
2020	COVID- Program not offered	
2021	8	124
2022	16	205
2023	15	210
Total		1,938

Theoretical Framework/Conceptual for Operationalizing Constructs into Variables**Measured in the Study**

This research utilized student behavior data collected in a student management system used by The School District to determine whether the Early Learning Program impacted social emotional skills and in turn created fewer behavior referrals for participating students. Students in the Early Learning Program are enrolled for three weeks during the summer before kindergarten starts. The Early Learning Program has been in place for ten years. The researcher analyzed kindergarten behavior referrals of participating students from 2015 to 2024. This data was then compared to peers of the same age from the same school sites who did not participate in the program. It is important to note this study includes a theoretical and conceptual framework. The theoretical framework will be explained first as it is based on theory and supports the learning environment of the Early Learning Program. A conceptual framework is also included

in this study as the researcher utilized the Kansas Early Learning standards in correlation to the social emotional skills taught in the Early Learning Program to determine the relationship of social emotional growth for students participating in the Early Learning Program.

Theoretical Framework

The study's theoretical framework is sociocultural theory (Bowman & Donovan, 2001). For this research, this theoretical framework is the lens the researcher used to examine the research questions. Sociocultural theory states that learning and development take place in a social setting when cognition is engaged (Bowman & Donovan, 2001). This is especially appropriate as the researcher studied how the Early Learning Program supports social emotional learning in the context of learning and development and the acquisition of skills in a classroom setting. The researcher investigated if this learning had an impact on behavior referrals. Vygotsky (1978) explored and theorized the relationship between learning and development. This work is important as educators and policy makers look to explore the impact of early intervention and its success in supporting the social emotional growth of early learners. Vygotsky (1978) introduced the concept of the zone of proximal development (ZPD), which theorizes that learning for every child starts the day they are born. Children learn how to talk, listen, ask, and answer questions, and interact with their environment first by imitation (Vygotsky, 1978). There is a difference between learning outside of a school environment and inside a school environment. Within a school setting, new expectations and environments are created to support learning for each child. There are opportunities for social interactions with peers and adults (Vygotsky, 1978). Vygotsky (1978) suggests students should learn in the ZPD. This zone is met when a student is pushed just beyond what they could do independently or without support. For example, if a student is asked to handwrite their name, and they have the

skills to complete this task independently, then they are working at their current developmental zone. If a student is then asked to write their first and last name, and the student hasn't been introduced to the letters or sounds included in their last name, they are now working in their ZPD (Vygotsky, 1978). After support, instruction, and modeling from a teacher, the student would acquire the skills and knowledge to complete this task and then move onto the next concepts.

The idea of the ZPD is important as we explore early intervention. Early intervention allows adults to create learning environments which lead early learners into the ZPD. Teachers are better prepared to engage early learners with this exposure to the ZPD because of their understanding of student development, curriculum, and learning strategies. The level of student success may differ for students who have not had exposure to a pre-kindergarten learning environment. Further, “children can imitate a variety of actions that go well beyond the limits of their own capabilities. Using imitation, children can do much more in collective activity or under the guidance of adults” (Vygotsky, 1978, p. 88). In a pre-kindergarten learning environment with peers and adults, students can extend their knowledge of the world around them. Vygotsky (1978) states, “learning is a necessary and universal aspect of the process of developing culturally organized, specifically human, psychological functions” (p. 90). Another important aspect to this learning theory related to the ZPD is the role of the teacher and how instruction is scaffolded for students (Bowman & Donovan, 2001). Scaffolding, a term frequently used in education, is a way to support new learning by building on previous learning. Teachers in a classroom setting will use previous information or knowledge about a student or class to scaffold their instruction, and in doing so, push students towards their ZPD.

The Early Learning Program created specific learning outcomes for reading, mathematics, and social emotional learning. The program also includes parent engagement

activities. The implementation and teaching of the Kansas Early Learning Standards for Social and Emotional Readiness in the Early Learning Program focuses on three themes: kindness, rules (safety and learning), and feelings (The School District, personal communication, 2024). Using sociocultural theory as the lens, this research determined if the social setting of the Early Learning Program allows for social emotional learning around these three themes. The acquisition of these skills was measured by the existence of behavior referrals for students during their kindergarten year. If there are fewer behavior referrals, the social setting demonstrates positive reinforcement of social emotional learning around the three themes. The researcher utilized behavior data to see if any statistically significant trends can be observed for students who participated in the Early Learning Program in comparison to those who did not. Learning in a preschool setting, such as the Early Learning Program, occurs with peers directed by an adult. Sociocultural theory uses the premise that, “emotional security allows for more effective exploitation of learning opportunities. Moreover, learning requires self-regulation. Therefore, behavioral issues, and the social and emotional environment of preschool classrooms that affect behavior, are crucial to effective learning” (Bowman & Donovan, 2001, p. 66). Evidence in The School District has established academic benefits for students who have participated in the Early Learning Program. This study focused on determining if social emotional impacts can be observed and documented.

Conceptual Framework

In 2018, Kansas revised their social emotional learning standards for kindergarten through twelfth grade. The Kansas Social, Emotional, and Character Development standards have three main constructs: character development, social development, and personal development (McDonald-Augustine et al., 2023). Under character development, the two anchor

standards are core principles and responsible decision making and problem solving. For social development, the anchor standards are social awareness and interpersonal skills. Finally, self-awareness and self-management are the anchor standards for personal development. KSDE also created Early Learning Standards, specifically for birth to kindergarten. For this study, the researcher utilized the pre-kindergarten social, emotional, and character development standards. The Kansas Early Learning Standards serves as a conceptual framework connecting behavioral referral categories to the social emotional learning outcomes taught during the Early Learning Program (Adhima et al., 2024). For this study, the researcher utilized the already established Kansas Early Learning Standards prior to the updated version released in March of 2024. The Early Learning Standards for pre-kindergarten have 33 individual standards (see Table 3.2). For this research, the standards were matched to the behavior or discipline categories listed from The School District behavior coding (see Table 3.3). The School District behavior coding will be explained in further detail later. This correlation allowed the researcher to look for specific standards and skills as missing or as areas of strength (see Table 3.4). The correlation, noted in Table 3.4, was created by the researcher after reviewing the Kansas Early Learning Standards (Adhima et al., 2024). The researcher only included a correlation between the Kansas Early Learning Standards and The School District Behavior Categories for level one and level two. This was due to the early age of the students in the Early Learning Program. It is also important to note that multiple Early Learning Standards could be impacted for each of the behavior codes listed in Table 3.3. The researcher aligned the standards which most closely matched the behavior code listed. The standards listed in Table 3.4 will then be a presumed skill deficit or missing skill which then caused the student to have the behavior referral.

Table 3.2

Kansas Early Learning Standards and Expected Skills Before Kindergarten

Character

SED.CD.p4.1: Responds appropriately to positive and negative feedback from adults most of the time.	SED.CD.p4.4: Shows awareness of and responds to feelings of others with adult guidance and support.
SED.CD.p4.2 Recognizes effect of own behavior on others most of the time.	SED.CD.p4.5: Demonstrates an understanding of what it means to be a friend (i.e., someone who cares, listens, shares ideas, trustworthy, provides comfort).
SED.CD.p4.3: Recognizes examples and non-examples of words and actions that are helpful or hurtful.	

Responsible Decision Making and Problem Solving

SED.R.p4.1: Anticipates and usually accepts consequences of own actions.	SED.R.p4.5: Works with others as part of a team, makes decisions with other children, with adult assistance.
SED.R.p4.2: Follows predictable classroom routines, manages transitions positively most of the time with minimal adult support.	SED.R.p4.6: Manages (i.e., expresses, inhibits or redirects) emotions, impulses and behaviors with minimal guidance from adults.
SED.R.p4.3: Demonstrates confidence by participating in most classroom activities.	SED.R.p4.7: Attempts to solve social problems independently, by negotiation or with adult assistance.
SED.R.p4.4: Interacts easily with familiar adults by engaging in conversations, responding to questions and following directions.	

Personal Development

SED.PD.p4.1: Recognizes and identifies more complex emotions (e.g., frustrated, disappointed, jealous) in self and others, with accuracy, with adult support.	SED.PD.p4.5: Expresses preferences in a socially acceptable way a majority of the time.
SED.PD.p4.2: Expresses and responds to a range of emotions in socially acceptable ways.	SED.PD.p3.6: Develops strategies to express strong emotion and calm self, with adult help.
SED.PD.p4.3: Describes characteristics of self and others.	SED.PD.p4.7: Recognizes and accurately describes own feelings a majority of the time.

SED.PD.p4.4: States more complex personal information (e.g., names of family members, names of neighbors).

SED.PD.p4.8: Demonstrates age-appropriate independence in decision-making regarding activities and materials.

Social Development

SED.SD.p4.1: Demonstrates an understanding of and responds to needs of others and people in distress.

SED.SD.p4.8: Invites other children to join groups or activities.

SED.SD.p4.2: Demonstrates an understanding of which forms of emotional expression are acceptable for a given environment.

SED.SD.p4.9: Develops friendships with one or two preferred peers.

SED.SD.p4.3: Recognizes and respects similarities and differences between self and others (e.g., gender, race, special needs, cultures, languages, family structures).

SED.SD.p4.10: Demonstrates an understanding of which forms of emotional expression are acceptable for a given environment.

SED.SD.p4.4: Treats others with respect when conflict or differences occur, given adult support.

SED.SD.p4.11: Adjusts behavior to different settings (e.g., “inside voice”).

SED.SD.p4.5: Displays socially competent behavior with peers (e.g., helping, sharing, and taking turns).

SED.SD.p4.12: Resolves conflicts with peers, seeking adult assistance when necessary.

SED.SD.p4.6: Participates in conversational turn taking by listening and responding to what was said.

SED.SD.p4.13: Demonstrates flexibility in solving problems; will change plans if a better idea is thought of or proposed.

SED.SD.p4.7: Demonstrates strategies to join a play group with adult support.

Note. Source from Adhima et al., 2024. Social Emotional Development Character Development (SED.CD), Social Emotional Development Responsible Decision-Making and Problem Solving (SED.R), Social Emotional Development Personal Development (SED.PD), Social Emotional Development Social Development (SED.SD).

The School District Behavior Levels

The School District uses four progressive levels when coding behavior or discipline referrals in the student management system. These four levels of coding behaviors are shared with administrators and teachers. When a behavior occurs in a classroom, teachers are trained on how to enter the behavior into the student management system. The building administrator then

reviews the referral and proceeds with action as deemed necessary. The first level includes behaviors which are considered minor, including: disruptive attire, inappropriate treatment of materials, disruption of the classroom, lack of respect, refusal to work, tardiness, not following directives, unauthorized object, leaving class without permission, and cheating or plagiarism. The second level of behavior referrals includes behaviors considered minor or major. These behaviors include repeated classroom violations, disrespect of classmates or staff, profanity or obscene language, disruption of school class or activities, excessive or inappropriate activity, and defiance of authority. The third and fourth levels of behavior were not included or considered in this study because behaviors in these levels would not be typical for a kindergartener. As this study focused on reviewing behavior referrals from early learners, the researcher expected most behavior referrals to be reported at level one and level two. Elementary administrators and teachers are trained on how to enter a behavior referral for students into the student management system and categorize concerning behaviors into one of the categories referenced.

Table 3.3*The School District Behavior Categories for the Student Management System*

Level 1	Level 2
Disruptive Attire	Repeated Classroom Violations
Inappropriate Treatment of Materials	Disrespect-Classmates/Staff
Disruption Classroom, Cafeteria, or Hallway	Profanity/Obscene Language
Lack of Respect	Disruption School Class/Activities
Refusal to Work	Excessive/Inappropriate Activities
Not Following Directives	Defiance of Authority
Unauthorized Object	
Leaving Class w/o Permission	
Cheating or Plagiarism	

Note. Source from The School District, personal communication, 2023.**Table 3.4***Correlation of Kansas Early Learning Standards and The School District Behavior Categories*

Behavior	Early Learning Standard	Standard Impacted		
Level 1				
Disruptive Attire	RDM/PS/C	SED.R.p4.1	SED.CD.p4.2	
Inappropriate Treatment of Materials	PD	SED.PD.p4.8		
Disruption of Classroom/Cafeteria/Hallway	RDM/PS/PD/C	SED.R.p4.2	SED.R.p4.3	SED.R.p4.4
Lack of Respect	SD	SED.SD.p4.4		
Refusal to Work	RDM/PS	SED.R.p4.4	SED.R.p4.7	
Not Following Directives	RDM/PS	SED.R.p4.2	SED.R.p4.3	
Unauthorized Object	RDM/PS	SED.R.p4.1		
Leaving Class w/o Permission	RDM/PS	SED.R.p4.2	SED.R.p4.6	SED.PD.p4.5
Cheating or Plagiarism	RDM/PS	SED.R.p4.1		
Level 2				
Repeated Classroom Violations	RDM/PS	SED.R.p4.2		
Disrespect-Classmates/Staff	SD	SED.R.p4.2		
Profanity/Obscene Language	SD	SED.SD.p4.1		
Disruption School Class/Activities	SD	SED.SD.p4.5		
Excessive/Inappropriate Activities	RDM/PS	SED.R.p4.6		
Defiance of Authority	RDM/PS	SED.R.p4.4		

Note. Source from Adhima et al., 2024; The School District, 2023. Responsible Decision Making (RDM), Problem Solving (PS), Character (C), Social Development (SD), Personal Development (PD)

Early Learning Program: Social Emotional Instruction

The Early Learning Program focuses on three themes during the three-week program related to social emotional learning. The first week of the program focuses on kindness. With specific instruction around the idea or concept: “It is always okay to be kind, it is never okay to be disruptive or hurtful.” The second week of the program focuses on safety and learning. The specific instruction focuses on the theme: “Why do we have rules?” Finally, the focus for the third and final week of the program is feelings. The specific instruction around feelings investigates the question: “It is okay to feel but what do you do when you have those big feelings?” The program dedicates fifteen minutes each morning to instruction around these three SEL themes.

The intentional instruction focused on kindness with an emphasis on not being disruptive or hurtful directly correlates to The School District behavior referral categories in level one and two. Specifically, a lack of kindness may result in a level one behavior referral titled “disruption of the classroom, cafeteria, or hallway.” With direct instruction on kindness with an emphasis on not being disruptive or hurtful, the behavior referral titled “lack of respect” could also be appropriate if a student was not being kind. The second theme focuses on safety and learning during the second week of the program. Several level one or two behavior referral categories could apply such as “inappropriate treatment of materials,” “leaving the class without permission,” or “not following directives.” The last week of the program’s instruction regarding feelings, and more specifically, what to do when we have feelings, relates to several behavior categories at level one and level two. These categories could include, “disruption of the

classroom,” “lack of respect,” “not following directives,” “leaving the class without permission,” “disrespect to classmates or staff,” or “defiance of authority.” The three SEL themes implemented in the Early Learning Program have a clear connection to The School District behavior categories at levels one and two. The researcher investigated the difference in the number of behavior referrals during the kindergarten year following participation in the Early Learning Program to students who participated in the program compared to those who did not participate in the program.

Behavior Entry and Training

Since this study used behavior incidents reported by elementary school administrators, it was important to review training regarding behavior entries. Building administrators are trained each year regarding how to enter behavior referrals into The School District student management system. Building administrators are also trained each year on how to utilize The School District behavior matrix. This behavior matrix provides suggested discipline actions based on the student behavior displayed. Building administrators are also encouraged to collaborate with their direct supervisor regarding severe or major discipline situations.

As referenced in chapter 1, a correlation is provided between The School District’s behavior levels one and two, and the Kansas Early Learning Standards. To answer the research questions for this study, the researcher tied each of the three Early Learning Program targeted social emotional skills to each of the behavior codes at level one and two in The School District’s student management system. The researcher collaborated with colleagues at the district office of The School District to review the correlation and alignment of behavior categories and the Early Learning Program social emotional skills. This collaboration allowed the researcher to have peers in the field who work with behavior daily to provide validity and reliability to the

correlation. The three social emotional skills taught during the Early Learning Program are kindness, safety and learning, and feelings. When teaching kindness, there is an emphasis on not being disruptive or hurtful. Teaching safety and learning is especially important as the Early Learning Program may be the first-time students have been in a formal classroom setting.

The final social emotional skill taught during the Early Learning Program is around feelings. Specifically, instruction is focused on what to do when we have feelings. To answer the research questions posed in this study, the researcher connected each of the three skills taught during the Early Learning Program and the behavior categories listed for level one and level two behavior referrals. Additionally, the researcher connected the Early Learning Standards to each of the behavior categories. The Early Learning Standards include character, responsible decision making and problem solving, personal development, and social development. Table 3.5 is a correlation between The School Districts behavior codes, the Early Learning Program social emotional skills taught, and the Early Learning Standards impacted for each behavior code.

Table 3.5

The School District Behavior Categories for the Student Management System

The Early Learning Program Social Emotional Skills, The School District Behavior Category, and Corresponding Kansas Early Learning Standard

Safety and Learning		Feelings	
Inappropriate Treatment of Materials- PD	*Horse Play- Rough Play- RDM, PS, PD	Refusal to Work- RDM, PS	Non-Compliance- RDM, PS
Not Following Directives- RDM, PS	*Unsafe Act- RDM, PS, PD	Profanity/Obscene Language- SD	*Inappropriate Language- SD
Disruption of School/Class Activities- SD	*Banned Object- RDM, PS	Defiance of Authority- RDM, PS	*Profanity- SD
Disruption of Classroom, Cafeteria, or Hallway- RDM, PD, C, PD	*Disruptive Behavior- RDM, PS, C, PD		
Excessive Inappropriate Activities- RDM, PS	*Fighting- RDM, PS, PD		
Unauthorized Object- RDM, PS	*Physical Contact- RDM, PS, PD	Lack of Respect- SD	Disrespect Classmates and Staff- RDM, PS
Leaving Class w/o Permission- RDM, PS, PD	*Property Misuse- PD	*Disrespect- SD	

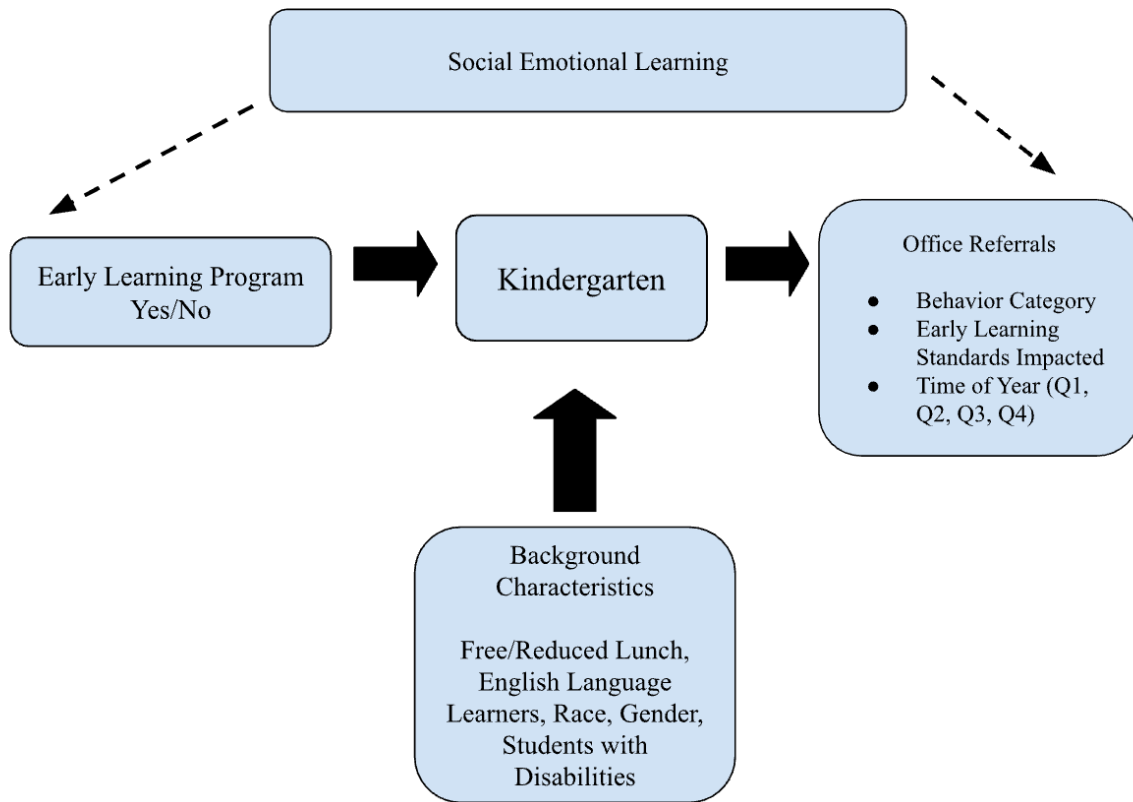
Kindness

Note. Source from The School District, personal communication, 2023. RDM- Responsible Decision Making, PS- Problem Solving, SD- Social Development, PD- Personal Development, C- Character

The correlations in Table 3.5 helped the researcher identify the social emotional skills missing or lacking which resulted in a behavior referral during the kindergarten year for students from 2015-2024. The items listed in Table 3.5 with an asterisk are behavior codes used before 2020 in The School District. Since data was collected from The School District Student Management System prior to 2020, it was important to include these categories. It is also the reason some overlap is observed in categories. For example, Excessive Inappropriate Activities replaced Unsafe Act, Physical Contact, Fighting, and Horse Play/Rough Play. Figure 3.1 below is a visual framework overview of the research plan.

Figure 3.1

Visual Framework Overview of the Research



Overview of Demographic Characteristics

The School District Demographics

The demographic information regarding The School District was taken from The School District website. The School District is one of the largest school districts in Kansas with over 25,000 students and over 3,000 employees. The district has over 30 elementary schools, five middle schools, and five high schools. The district also has specialized schools for early education, high school specialized programs, and an alternative high school. Additionally, the district serves students from over ten different cities in the state.

Early Learning Program Academic Data and Site Demographics

The number of Early Learning Program sites has changed over the years depending on the amount of funding available. The goal of providing this program at The School District's most at-risk schools has not changed. The Early Learning Program also tries to identify teachers from the program's site for the summer and in some cases, the Early Learning Program teacher will be the participant's kindergarten teacher. The Early Learning Program sites also work with their neighborhood community to promote participation. The Early Learning Program was created to help prepare students for the transition to kindergarten with a focus on mathematics and early literacy, while teaching social emotional learning skills.

In 2014, The School District was able to offer this program at three elementary schools. In 2018, the program was offered at 19 of the 34 elementary schools in the district. By 2023, the Early Learning Program was implemented at 15 sites. The variation of the number of sites offering the Early Learning Program is based on the amount of funding available each year.

To provide a sample of the academic data collected and demographic information for participants of the Early Learning Program, the researcher provided an overview of information for participating students from 2016 to 2017. These two years were selected as data was available to the researcher from The School District in a report prepared by The School District. Appendix A shows the number of students who participated in the Early Learning Program in 2016 and 2017. In 2016, 226 students were enrolled in the Early Learning Program at 13 different school sites. In 2017, 298 students were supported at 19 different schools. Appendix B shows a growth comparison between kindergarteners who participated in the Early Learning Program and kindergarteners from the same schools who didn't participate in the program. Students participated in The Northwest Evaluation Association (NWEA) Measures of Academic

Progress (MAP) nationally norm-referenced assessments in reading and mathematics. The students were assessed in the fall and again in the winter in 2017. Students who participated in the Early Learning Program outperformed peers who did not participate in the program. In the area of math, 56.1% of students who participated in the Early Learning Program met or exceeded their expected growth compared to 51.1% of peers who did not participate. In the area of reading, 59.9% of Early Learning Program students met or exceeded their anticipated goal on the NWEA MAP assessment from fall to winter compared to 55.2% for peers not enrolled in the program.

The demographic information in Appendix C includes students from the 2017 summer Early Learning Program. White and Hispanic students made up 81% of the participating group for the summer of 2017. For the students participating in 2017, 49% qualified for free and or reduced lunch support. Almost half the students who participated in the program in 2017 identified as white students.

Appendix D illustrates student growth using the Dynamic Indicators of Basic Literacy Skills (DIBELS) who participated in the Early Learning Program from 2016-2017. DIBELS is an assessment used by The School District to help identify a student's literacy readiness. When comparing the results of fall and winter DIBELS assessments for participants in the Early Learning Program to all The School District elementary kindergarteners, students who did not participate in the Early Learning Program outperformed those who did participate. However, students who received free and/or reduced meals and participated in the Early Learning Program scored higher on the fall and winter assessment compared to peers across all The School District elementary kindergarteners. When comparing students who participated in Early Learning Program with peers who did not participate from the same schools, rather than all The School

District elementary school students, student performance scores are much closer. Early Learning Program students scored higher in the fall when compared to peers who didn't participate when looking at only Early Learning Program schools. However, by the fall DIBELS assessment, non-Early Learning Program students scored higher than students who participated in the Early Learning Program. The difference in performance is a much smaller measure as compared to the difference noted when looking at all The School District data. Students who received free and/or reduced meals and participated in the Early Learning Program scored higher on the DIBELS assessment in the fall and winter compared to peers who did not participate in the program and attended an Early Learning Program location. Students who received free and/or reduced meals and participated in the Early Learning Program outperformed peers who did not participate in the program not only at the Early Learning Program locations, but also compared to all kindergarteners across all elementary schools in 2016-2017 in The School District.

The academic performance data described above for students in the Early Learning Program for the 2016 and 2017 school years was positive for students' academic growth and performance. However, the researcher was curious how this program addresses and measures the social emotional learning of the students participating in the three-week kindergarten readiness program. The School District has documented data to show how this program has supported incoming kindergarteners in reading and mathematics using the NWEA MAP assessments and DIBELS assessments. However, The School District does not have data or information to explain how this three-week program supports the social emotional impact for participating students as they prepare to enter kindergarten. The Early Learning Program is funded by The School District, Title 1 federal funds, and through a foundation. More information is needed on how the Early Learning Program supports the social emotional development and impact for

participating students. No information is available to show how this program, implemented in 2014, supports and prepares students for the social emotional demands of entering elementary school as a kindergartener. KSDE has listed social emotional readiness as one of the five state outcomes for measuring student progress in Kansas (Kansas State Department of Education, 2022). With social emotional growth being identified as one in only five state outcomes, the information gained in this study was important to support further programs aimed to prepare students for kindergarten across the state and or nation.

Selection of Participants

This study included archival data for kindergarten students who participated in the Early Learning Program each summer from 2014 to 2023. Only schools with six or more students participating in the Early Learning Program will be included in the data. Further, schools will only be included in the data for the year students participated. The archival data was collected for all kindergarten students from schools with The School District hosting the Early Learning Program at multiple locations from 2014 to 2023. Data was collected by The School District on the identity of each student who participated in the Early Learning Program each summer. This information was used to collect and analyze student behavior data. Results included the entire kindergarten data set compared to students who participated in the Early Learning Program. The Early Learning Program relies on educators and administration to advertise and recruit participants. The Early Learning Program sites are filled first come first serve. The behavior data collected for this study was entered by building principals or classroom teachers in a student management system; however, only building administrators have the authority to assign discipline to students based on a behavior referral.

Research Process and Procedures

Data Collection

The researcher worked with the Director of Assessment and Research from The School District to gain access to a deidentified data set of participants. All personally identifiable information remained with the Director of Assessment and Research from The School District. Data included all kindergarten students from 2015 to 2024 who participated in the Early Learning Program and kindergarten classrooms where at least six Early Learning students attended during kindergarten. Any elementary school in The School District without at least six students participating in the Early Learning Program were excluded from the data for the correlating year(s).

Data Analysis

A quasi-experimental method was used for this research. The availability of data to conduct this study as well as the need from The School District to evaluate the Early Learning Program aligned with the rationale of a quasi-experimental method (Gao et al., 2017). The quasi-experimental method is considered a more feasible option compared to a randomized control method and can be utilized to explore relationships of programs with existing data (Gao et al., 2017). The need to provide controls was maintained by limiting the data set to students from the same school where at least six peers participated in the Early Learning Program: the data set only included kindergarten students from a school which had at least six students who participated in the Early Learning Program. This helped minimize effects of outside variables without being able to control them directly. Independent variables included students in the Early Learning Program and those not in the Early Learning Program. The dependent variables included whether the students received a behavior referral(s) as well as the type of behavior category and level of

the behavior referral based on The School District behavior matrix. Descriptive statistics and logistic regression models were used for analysis to determine if a relationship existed. A logistic regression analysis allowed the researcher to use quantitative data to determine if a relationship existed, its significance, and which variable was most significant (James et al., 2023). Predictive Analytics Software (PASW) Statistics 18 was used for descriptive statistics and logistic regression models. The PASW 18 statistics software was formerly known as Statistical Package for the Social Sciences (SPSS). Additional background characteristics included in the analysis were free and or reduced lunch, race, gender, students with disabilities, and English Language Learners. The researcher started by receiving a deidentified file containing all students included in the study and discipline/behavior data. The deidentified file also contained all student information related to this study's variables.

Limitations

The researcher worked with the Director of Assessment and Research for The School District. The researcher used data already collected for this research. This could be considered a limitation due to the researcher's inability to provide any proactive training or input to administrators or teachers prior to data collection. In other words, the consistency and validity of the referral data were beyond the control of the researcher. Research suggests factors such as poor classroom management may contribute to an increased likelihood of a behavior referral (Pas et al., 2011). When the researcher was correlating the three social emotional skills taught during the Early Learning Program (kindness, safety and learning, and feelings) to The School Districts level one and level two behavior categories, it became clear a lack of instruction around both kindness and feelings could have contributed to a behavior referral. The researcher

collaborated with district level peers for the most appropriate correlation of the Kansas Early Learning Standards and The School District behavior categories.

Ethics

The research study was submitted through the Kansas State Institutional Review Board (IRB). Upon approval by the IRB, ethical considerations for the study included all participants remained anonymous as a nonidentifiable data set was created by the Director of Assessment and Research for The School District. All names of employees from The School District and other identifiable information were also changed. Demographic information about The School District was left general to decrease the likelihood of identifying participants and employees from The School District. Upon completion of the study, any other materials or data collected will be stored for three years and at the end of that term will be deleted from the researcher's computer as well as any specialized program used during the data collection and analysis portions of the process.

Role of Researcher

The researcher is currently employed by The School District and serves in an administrative role at the district level. Working for The School District allowed the researcher to understand the Early Learning Program before conducting this study. In addition, working at the district level allowed the researcher easier access to the pre-existing data needed for this study as the district's director of assessment and research has been a colleague for 12 years.

Summary

The Early Learning Program was established in 2014 in The School District to support the transition to kindergarten. The program focuses on early literacy skills, number sense, and learning the routines of school to include direct instruction on social emotional skills. The three

targeted social emotional skills are kindness, safety and learning, and feelings. The School District has ample academic data to demonstrate how the Early Learning Program supports academic learning for participating students. As evidenced by the literature review, students who have access to early intervention programs are more prepared for the transition to kindergarten (Duke University Center for Child and Family Policy, 2017). Also, children learn how to navigate social situations through practice in social settings like the Early Learning Program (Zinsser et al., 2014). This study was needed to see if the Early Learning Program had a positive impact on social emotional learning as measured by behavior referrals. This study utilized a quasi-experimental method utilizing student behavior referral data already acquired and maintained by The School District. Hypothesis testing, descriptive characteristics, and logistic regression models were used for analysis. Additional background characteristics in the analysis included free and/or reduced lunch, race, gender, students with disabilities, and English Language Learners. Chapter 4 will detail the results and observations of the study. Chapter 5 will provide discussions and conclusions, including implications for practice, policy, and potential future research regarding early intervention with a focus on social emotional learning.

Chapter 4 - Results

Overview

This chapter is divided into three sections based on the research questions and the type of analysis used. The first section examines the descriptive characteristics of the Early Learning Program sites, student characteristics, and the research questions. The second section includes comparisons utilizing logistical and multiple regression models with control. The third section includes an overall summary of the results. There is a summary of observations for each table presented as well as a summary of all findings at the end of this chapter.

The first section examines three tables of descriptive characteristics of the Early Learning Program. The descriptive characteristics provide the years of data utilized for this study of the Early Learning Program, the total number of students in the study, the total number of students in the Early Learning Program, as well as the overall percentage of students in the Early Learning Program. The second set of descriptive characteristics provides percentages for the variables explored by this study including race, English language learners, students with disabilities, students who qualify for free and reduced lunch, and gender for students in the Early Learning Program compared to students who did not participate in the program. The third set of descriptive characteristics describes the percentage of students who received at least one behavior referral during kindergarten for the years included in the data set, received a behavior referral in quarter 1 of kindergarten, quarter 2 of kindergarten, quarter 3 of kindergarten, quarter 4 of kindergarten, received a behavior referral related to feelings, kindness, or safety and learning. The third set of descriptive statistics also compares students who participated in the Early Learning Program to students who did not participate as well as the overall percentage of

students in kindergarten who received a behavior referral for each of the variables explored in this study.

Early Learning Program Characteristics

Table 4.1 contains descriptive characteristics of the Early Learning Program by school year and participation rate. The Early Learning Program years included in this study are 2015 to 2024. Due to the global pandemic, the Early Learning Program was not offered by The School District in 2021.

Table 4.1

Count of Students in the Early Learning Program by Year and Participation Rates

Year	Total Students	Early Learning	Early Learning %
2015	193	42	22
2016	834	186	22
2017	846	217	26
2018	1204	280	23
2019	1195	307	26
2020	980	260	27
2022	532	126	24
2023	994	198	20
2024	820	161	20
Grand Total	7,598	1,777	23

In Table 4.1, the total student’s column refers to the number of students in schools where six or more students from the Early Learning Program were enrolled for kindergarten. For example, if classroom A at Kansas Elementary School only had four students participate in the Early Learning Program in 2020, that classroom was excluded from the data set. However, if classroom A at Kansas Elementary School had six students who participated in the Early

Learning Program in 2015, the entire class was included in the data set. Between 2015 and 2024, the percentage of students participating in the Early Learning Program in relation to the number of students included in the data set ranged from 20% to 27%. In 2019, the Early Learning Program observed the most participation in the program with 307 participants. Over the nine years of data used for this study, 1,777 students participated in the Early Learning Program offered by The School District. The longitudinal data show a relatively stable rate (as of percentage) of participation over the years, with a slight dip in the most recent years.

Table 4.2 contains descriptive characteristics of the Early Learning Program with table columns titled characteristics, no early learning, early learning, and all students.

Table 4.2

Demographic Characteristics of Students in Study (N= 7,598)

Characteristics	No Early Learning (N=5,821, in %)	Early Learning (N=1,777, in %)	All Students (N=7,598, in %)
Hispanic	27.0	27.2	27.0
Black	13.4	11.0	12.9
Asian	2.3	4.2	2.7
White	49.2	48.9	49.1
Multi/Other	8.2	8.7	8.3
ELL	24.3	27.3	25.0
SWD	6.8	10.5	7.7
Free and or Reduced Meals	49.2	50.4	49.5
Male	50.7	52.0	51.0

Note. ELL= English language learners, SWD= students with disabilities

When looking at Table 4.2, the characteristics column lists the variables included in this study which include students who identify as Hispanic, Black, Asian, White, and Multi-Racial or Other. The characteristics column also identifies students who are considered English language learners, students with disabilities, students who qualify for free and or reduced lunch, and

gender. The column titled no early learning shows the participant percentage for each characteristic listed. The column titled early learning refers to the percentage of each characteristic listed for students who did participate in the Early Learning Program for all years included in this study. The final column in Table 4.2 shows the percentage for all students included in the data set grouped by the listed characteristics. The visual inspection indicates the percentages are similar between participating and non-participating students, as well as to the overall district's distributions. When taking the absolute values of the percentages across groups, students who are White or qualify for free and or reduced lunch have the highest participation rate. Nonetheless, proportionally, that is, in relation to the percentage distributions of the groups in the total population, all groups except for Black and White have higher participation rates.

Table 4.3 contains descriptive characteristics of the Early Learning Program with columns titled research questions, no early learning, early learning, and a total percentage.

Table 4.3

Overview of Behavior Referrals by Research Question (N= 7, 598)

Research Questions	No Early Learning (N=5,821 in %)	Early Learning (N=1,777 in %)	Total (N=7,598 in %)
Has a Referral	13.1	10.7	12.5
Has a Referral Quarter 1	6.6	5.5	6.3
Has a Referral Quarter 2	6.1	4.1	5.6
Has a Referral Quarter 3	5.6	4.2	5.3
Has a Referral Quarter 4	4.7	4.0	4.6
Referral Feelings	3.7	2.9	3.5
Referral Kindness	3.6	2.6	3.4
Referral Safety & Learning	10.2	8.5	9.8

The column titled research questions include eight items which all correlate to this study's research questions. The first item in this column is listed as “Has a referral” and refers to whether

a student received at least one behavior referral during their kindergarten year for the years included in this study. This column then lists if a student received a behavior referral during quarter one, quarter two, quarter three, or quarter four of their kindergarten year for the years included in this study. The final three items in the column titled research questions describe if a student received a behavior referral during their kindergarten year, for the years included in this study, which correlates to the skills taught in the Early Learning Program. The three social and emotional skills taught during the Early Learning Program are feelings, kindness, safety and learning. The column titled *no early learning* includes the students who did not participate in the Early Learning Program, were in a classroom in kindergarten, and had six or more classmates who did participate in the Early Learning Program, for each year of data collected for this study. The column titled early learning includes students who participated in the Early Learning Program and were in a classroom with at least six peers who also participated. The final column in Table 4.3 shows the overall percentage of students who received a behavior referral for each item listed on the table when including all students in the entire data set for this study. Table 4.3 shows the percentage of students who received a behavior referral are greater for all items listed when a student did not participate in the Early Learning Program. The periodic data (by quarters) show relatively similar overall prevalence patterns between the participating and non-participating students, that is, more referrals were observed at the beginning of kindergarten for both groups and gradually declined by the end of the kindergarten year. Referrals related to safety and learning also observed the highest percentage, approximately three folds to the other two referral categories respectively, and this is also the behavior area with the most behavior categories.

Overall, the descriptive characteristics seem to suggest there are differences between students who participated in the Early Learning Program and those students who did not. The next section reports the results from the logistic regression analyses to determine if such differences remain statistically significant when controlling for the demographic variables included in the study.

Logistic Regression Analyses

To further identify the differences observed between student participation in the Early Learning Program and social emotional learning, as measured by behavior referrals, eight logistic regression analyses are provided in this section. The logistic regression analyses include a comparison of all kindergarten students from 2015-2024, who participated in the Early Learning Program, compared to those who did not participate. Additionally, it is important to understand the data set includes any classroom in kindergarten where six or more students from the Early Learning Program attended. The logistic analyses are titled as follows; students with one or more behavior referrals in kindergarten, one or more behavior referrals in quarter one of kindergarten, one or more behavior referrals in quarter two of kindergarten, one or more behavior referrals in quarter three of kindergarten, one or more behavior referrals in quarter four of kindergarten, comparison of behavior referrals related to feelings during the kindergarten year, comparison of behavior referrals related to kindness during the kindergarten year, and finally a comparison of behavior referrals related to safety and learning during the kindergarten year. All comparisons for each model are between all kindergarten students in the data set compared to students who participated in the Early Learning Program. As stated earlier, the data set includes all classrooms of kindergarten students from 2015 to 2024 (except for 2021) where at least six or more students from the Early Learning Program were also attending.

In all analyses, three models are used, and each uses the same process below. The data set includes all participants of the Early Learning program from 2015 to 2024 (except for 2021). In Tables 4.4, 4.5, 4.6, 4.7, and 4.8, the logistic regression analyses, the first model (Model 1), compares the participation in the Early Learning Program to the likelihood of any behavior referral in kindergarten. The kindergarten data set includes all students in kindergarten in The School District. For Tables 4.9, 4.10, and 4.11, the dependent variable (Y_1) changes to include only a subset of behavior referrals which serves as a proxy for each of the three social emotional learning skills taught during the Early Learning Program (feelings, kindness, safety and learning). The second model (Model 2) includes the characteristics/variables of race (students who are Hispanic, Black, Asian, or White). The third model (Model 3) includes all characteristics/variables identified for this study which include students' classifications on race, students who are English language learners, students with a disability, students who receive free and or reduced lunch, and gender. Because the researcher found literature which stated early intervention programs can have a more positive impact on students of color, the researcher included Model 2 to evaluate the between-race differences. Model 3 allowed the researcher to further measure the effects of race, in conjunction with other demographic/characteristic variables (i.e., English language learners, students with a disability, students who receive free and or reduced lunch, and gender). For all logistic regression comparisons, the overall significance value of 0.00 (<0.05) indicates that there is a difference between expected and observed results. In simplest terms, if the coefficient (B), is less than 0 or a negative number, participation in the Early Learning program decreased the likelihood of a behavior referral for the respective variable. To help understand the tables, it is also important to understand $\text{Exp}(B)$ is the "odds ratio". If the number in $\text{Exp}(B)$ is larger than 1, the odds increase for the respective

variable on the likelihood of receiving a behavior referral. A number less than 1 for $\text{Exp}(B)$ suggests the odds decrease on the likelihood of that respective variable receiving a behavior referral.

The logistic regressions utilized for this study describe the statistical method used to predict the probability of a binary outcome (0 or 1) based on one or more independent variables, utilizing a logarithmic transformation to convert the linear relationship between the variables into a probability between 0 and 1. This is achieved through the sigmoid function (logistic function) (Chen et al., 2024). This allowed the researcher to analyze how changes within the independent variables influence the likelihood of a specific event occurring. For the purpose of this study, the specific event is a behavior referral.

The models presented in this study predict the "log-odds" of the event occurring (B), which is then converted to a probability using the logistic function ($\text{Exp}(B)$). To proceed with logistic regression, the existence of a behavior referral for each of the research questions was converted to binary values; 1 = student received a behavior referral, and 0 = student did not receive a behavior referral. Additional details regarding independent variables are included with the results for each table included in this study.

The statistical models are listed below:

Model 1

$\ln[Y_1/(1-Y_1)] = a + b_1X_1$ where

Y_1 = the probability of having a behavior referral (missing social emotional skills)

X_1 = whether or not the student participated in the early learning program (1= participated, 0 = did not participate)

Model 1.1

$\ln[Y_1/(1-Y_1)] = a + b_1X_1$ where

Y_1 = the probability of having a behavior referral (related to feelings)

X_1 = whether or not the student participated in the early learning program (1= participated, 0 = did not participate)

Model 1.2

$\ln[Y_1/(1-Y_1)] = a + b_1X_1$ where

Y_1 = the probability of having a behavior referral (related to kindness)

X_1 = whether or not the student participated in the early learning program (1= participated, 0 = did not participate)

Model 1.3

$\ln[Y_1/(1-Y_1)] = a + b_1X_1$ where

Y_1 = the probability of having a behavior referral (related to safety and learning)

X_1 = whether or not the student participated in the early learning program (1= participated, 0 = did not participate)

Model 2

$\ln[Y_1/(1-Y_1)] = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5$, where

Y_1 = the probability of having a behavior referral (missing social emotional skills)

X_1 = whether or not the student participated in the early learning program (1= participated, 0 = did not participate);

X_2 = Hispanic (1= yes, 0 = no)

X_3 = Black (1= yes, 0 = no)

X_4 = Asian (1= yes, 0 = no)

X_5 = White (1= yes, 0 = no)

Model 2.1

$\ln[Y_1/(1-Y_1)] = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5$, where

Y_1 = the probability of having a behavior referral (related to feelings)

X_1 = whether or not the student participated in the early learning program (1= participated, 0 = did not participate);

X_2 = Hispanic (1= yes, 0 = no)

X_3 = Black (1= yes, 0 = no)

X_4 = Asian (1= yes, 0 = no)

X_5 = White (1= yes, 0 = no)

Model 2.2

$\ln[Y_1/(1-Y_1)] = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5$, where

Y_1 = the probability of having a behavior referral (related to kindness)

X_1 = whether or not the student participated in the early learning program (1= participated, 0 = did not participate);

X_2 = Hispanic (1= yes, 0 = no)

X_3 = Black (1= yes, 0 = no)

X_4 = Asian (1= yes, 0 = no)

X_5 = White (1= yes, 0 = no)

Model 2.3

$\ln[Y_1/(1-Y_1)] = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5$, where

Y_1 = the probability of having a behavior referral (related to safety and learning)

X_1 = whether or not the student participated in the early learning program (1= participated, 0 = did not participate);

$X_2 = \text{Hispanic (1= yes, 0 = no)}$

$X_3 = \text{Black (1= yes, 0 = no)}$

$X_4 = \text{Asian (1= yes, 0 = no)}$

$X_5 = \text{White (1= yes, 0 = no)}$

Model 3

$\ln[Y_1/(1-Y_1)] = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + b_6X_6 + b_7X_7 + b_8X_8 + b_9X_9$ where

$Y_1 = \text{the probability of having a behavior referral (missing social emotional skills)}$

$X_1 = \text{whether or not the student participated in the early learning program (1= participated, 0 = did not participate);}$

$X_2 = \text{Hispanic (1= yes, 0 = no)}$

$X_3 = \text{Black (1= yes, 0 = no)}$

$X_4 = \text{Asian (1= yes, 0 = no)}$

$X_5 = \text{White (1= yes, 0 = no)}$

$X_6 = \text{English Language Learner (1= yes, 0 = no)}$

$X_7 = \text{Student with a disability (1= yes, 0 = no)}$

$X_8 = \text{Student receiving free and or reduced meals (1= yes, 0 = no)}$

$X_9 = \text{Student is male (1= yes, 0 = no)}$

Model 3.1

$\ln[Y_1/(1-Y_1)] = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + b_6X_6 + b_7X_7 + b_8X_8 + b_9X_9$ where

$Y_1 = \text{the probability of having a behavior referral (related to feelings)}$

$X_1 = \text{whether or not the student participated in the early learning program (1= participated, 0 = did not participate);}$

$X_2 = \text{Hispanic (1= yes, 0 = no)}$

$X_3 = \text{Black (1= yes, 0 = no)}$

$X_4 = \text{Asian (1= yes, 0 = no)}$

$X_5 = \text{White (1= yes, 0 = no)}$

$X_6 = \text{English Language Learner (1= yes, 0 = no)}$

$X_7 = \text{Student with a disability (1= yes, 0 = no)}$

$X_8 = \text{Student receiving free and or reduced meals (1= yes, 0 = no)}$

$X_9 = \text{Student is male (1= yes, 0 = no)}$

Model 3.2

$\ln[Y_1/(1-Y_1)] = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + b_6X_6 + b_7X_7 + b_8X_8 + b_9X_9$ where

$Y_1 = \text{the probability of having a behavior referral (related to kindness)}$

$X_1 = \text{whether or not the student participated in the early learning program (1= participated, 0 = did not participate);}$

$X_2 = \text{Hispanic (1= yes, 0 = no)}$

$X_3 = \text{Black (1= yes, 0 = no)}$

$X_4 = \text{Asian (1= yes, 0 = no)}$

$X_5 = \text{White (1= yes, 0 = no)}$

$X_6 = \text{English Language Learner (1= yes, 0 = no)}$

$X_7 = \text{Student with a disability (1= yes, 0 = no)}$

$X_8 = \text{Student receiving free and or reduced meals (1= yes, 0 = no)}$

$X_9 = \text{Student is male (1= yes, 0 = no)}$

Model 3.3

$\ln[Y_1/(1-Y_1)] = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + b_6X_6 + b_7X_7 + b_8X_8 + b_9X_9$ where

$Y_1 = \text{the probability of having a behavior referral (related to safety and learning)}$

X₁ = whether or not the student participated in the early learning program (1= participated, 0 = did not participate);

X₂ = Hispanic (1= yes, 0 = no)

X₃ = Black (1= yes, 0 = no)

X₄ = Asian (1= yes, 0 = no)

X₅ = White (1= yes, 0 = no)

X₆ = English Language Learner (1= yes, 0 = no)

X₇ = Student with a disability (1= yes, 0 = no)

X₈ = Student receiving free and or reduced meals (1= yes, 0 = no)

X₉ = Student is male (1= yes, 0 = no)

For Model 1 to 3, the results are reported in Tables 4.4, 4.5, 4.6, 4.7, and 4.8. For Model 1.1, 2.1, and 3.1, the results are reported in Table 4.9. For Model 1.2, 2.2. And 3.2, the results are reported in Table 4.10. For Model 1.3, 2.3, and 3.3, the results are reported in Table 4.11.

The data set includes all students enrolled in kindergarten from 2015-2024 from identified schools that contained 6 or more Early Learning participants. The results of the analyses compare students who received at least one behavior referral and participated in the Early Learning Program, compared to students who did not. Table 4.4 contains the results of a logistic regression analysis. The dependent variable in this analysis serves as a proxy measure for behavior referrals for all kindergarten students during kindergarten. The binary value was calculated by examining referrals in the data set for students who participated in the Early Learning Program compared to students in the data set who did not receive a behavior referral (1= had a referral during the kindergarten year, 0 = did not have a referral during the kindergarten year). All independent variables within this table were also associated with a binary

value. For example, if a student was an English language learner, 1 equals the student is an English language learner and 0 they are not.

Table 4.4

Logistic Regression Comparisons of One or More Occurrence of a Behavior Referral in Kindergarten (N= 7,598)

	Model 1		Model 2		Model 3	
	B	Exp(B)	B	Exp(B)	B	Exp(B)
Early Learning Student	-0.23**	0.80	-0.20*	0.82	-0.25**	0.78
Hispanic			-0.69***	0.50	-0.50***	0.61
Black			0.19	1.20	0.08	1.08
Asian			-1.47***	0.23	-1.02**	0.36
White			-0.39***	0.68	-0.36**	0.70
ELL					-0.65***	0.52
SWD					0.52***	1.68
Free/Reduced					0.58***	1.79
Male					1.22***	3.38
Constant	-1.90***	0.15	-1.55***	0.21	-2.57***	0.08

* p < 0.05, ** p < 0.01, *** p < 0.001

Table 4.4, Model 1 shows a significant *p*-value, with a negative coefficient (-.23) and an odd ratio of .8. This means that the students who participate in the Early Learning Program are less likely to receive a behavior referral, with (1-0.8) 20% lower odds of getting a behavior referral. Even after introducing the variables in Model 2 and Model 3, participation in the Early Learning Program has a statistically significant impact. Model 3 shows a significant *p*-value, with a negative coefficient (-.25) and an odd ratio of .78. This means that the students who participate in the Early Learning Program, when controlling for all variables, are less likely to receive a behavior referral, with (1-0.78) 22% lower odds of getting a behavior referral. When looking at individual variables in Model 2, Hispanic, Asian, and White students note a

significant relationship. When reviewing Model 3, a relationship continues to exist for Hispanic, Asian, and White students in addition to English language learners with a decreased ratio/chance of having a referral, assuming all other variables are held constant. In addition, being SWD, receiving free/reduced meals, or being male is statistically significant associated with an increased ratio/chance of having a referral, assuming holding all other variables constant. Black students have an increased ratio/chance of having a referral.

Table 4.5 contains the results of a logistic regression analysis. The dependent variable in this analysis serves as a proxy measure for behavior referrals for all kindergarten students during the first quarter of kindergarten. The binary value was calculated by examining referrals in the data set for students who participated in the Early Learning Program compared to students in the data set who did not receive a behavior referral (1= had a referral during quarter 1 of the kindergarten year, 0 = did not have a referral during quarter 1 of the kindergarten year). All independent variables within this table were also associated with a binary value.

Table 4.5

Logistic Regression Comparisons of One or More Occurrence of a Behavior Referral During Quarter 1 in Kindergarten (N= 7,598)

	Model 1		Model 2		Model 3	
	B	Exp(B)	B	Exp(B)	B	Exp(B)
Early Learning Student	-0.19	0.83	-0.15	0.86	-0.20	0.82
Hispanic			-0.77***	0.46	-0.65**	0.52
Black			0.42*	1.53	0.30	1.36
Asian			-2.21**	0.11	-1.80*	0.16
White			-0.34*	0.71	-0.30	0.74
ELL					-0.53**	0.59
SWD					0.64***	1.89
Free/Reduced					0.61***	1.85
Male					1.28***	3.58
Constant	-2.66***	0.07	-2.37***	0.09	-3.51***	0.03

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

After reviewing all three models, there are no noticeable effects of participation in the Early Learning Program in relation to behavior referrals. Model 1 shows a negative p -value, with a negative coefficient (-0.19) which is not significant. The odd ratio of .83 means that students are less likely to receive a behavior referral, with (1-0.83) lower odds of getting a behavior referral. However, a significant relation does exist with Hispanic and Asian students in Model 2 as well as English language learners in Model 3. A moderate relationship for White students is noted in Model 2. A similar relationship exists during quarter 1 of the kindergarten year compared to the entire kindergarten year for SWD, students receiving free/reduced meals, or being male. All three variables are statistically significant associated with an increased ratio/chance of having a referral, assuming holding all other variables constant in addition to an increased ratio/chance for Black students.

Table 4.6 is the result of another logistic regression model. The dependent variable in this analysis serves as a proxy measure for behavior referrals for all kindergarten students during the second quarter of kindergarten. The binary value was calculated by examining referrals in the data set for students who participated in the Early Learning Program compared to students in the data set who did not receive a behavior referral (1 = had a referral during quarter 2 of the kindergarten year, 0 = did not have a referral during quarter 2 of the kindergarten year). All independent variables within this table were also associated with a binary value.

Table 4.6

Logistic Regression Comparisons of One or More Occurrence of a Behavior Referral During Quarter 2 in Kindergarten (N= 7,598)

	Model 1		Model 2		Model 3	
	B	Exp(B)	B	Exp(B)	B	Exp(B)
Early Learning Student	-0.43**	0.65	-0.40**	0.67	-0.44**	0.64
Hispanic			-0.77***	0.46	-0.45*	0.64
Black			0.28	1.33	0.21	1.23
Asian			-1.73**	0.18	-1.16	0.31
White			-0.46**	0.63	-0.43*	0.65
ELL					-0.83***	0.43
SWD					0.47**	1.60
Free/Reduced					0.49***	1.63
Male					1.19***	3.28
Constant	-2.73***	0.06	-2.36***	0.09	-3.35***	0.04

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

All three models show the Early Learning Program is significant in decreasing the likelihood of a behavior referral during the second quarter of the kindergarten year compared to students who did not participate in the program. Model 1 shows a significant p -value, with a negative coefficient (-.43) and an odd ratio of .65. This means that the students who participate in the Early Learning Program are less likely to receive a behavior referral, with (1-0.65) 35% lower odds of getting a behavior referral. Model 2 shows a significant p -value, with a negative coefficient (-.40) and an odd ratio of .67. This means that the students who participate in the Early Learning Program are less likely to receive a behavior referral, with (1-0.67) 33% lower odds of getting a behavior referral. Model 3 shows a significant p -value, with a negative coefficient (-.44) and an odd ratio of .64. This means that the students who participate in the

Early Learning Program are less likely to receive a behavior referral, with (1-0.64) 36% lower odds of getting a behavior referral.

A significant relationship was also noted for Hispanic and White students in Model 2. English language learners also observe a significant relationship when reviewing Model 3. A similar relationship continues to exist for the entire kindergarten year, quarter 1, and quarter 2 for SWD, students receiving free/reduced meals, or being male. All three variables are statistically significant associated with an increased ratio/chance of having a referral, assuming holding all other variables constant in addition to an increased ratio/chance for Black students.

The results of Table 4.7 are similar to the results of Table 4.6. The dependent variable in this analysis serves as a proxy measure for behavior referrals for all kindergarten students during the third quarter of kindergarten. The binary value was calculated by examining referrals in the data set for students who participated in the Early Learning Program compared to students in the data set who did not receive a behavior referral (1= had a referral during quarter 3 of the kindergarten year, 0 = did not have a referral during quarter 3 of the kindergarten year). All independent variables within this table were also associated with a binary value.

Table 4.7

Logistic Regression Comparisons of One or More Occurrence of a Behavior Referral During Quarter 3 in Kindergarten (N= 7,598)

	Model 1		Model 2		Model 3	
	B	Exp(B)	B	Exp(B)	B	Exp(B)
Early Learning Student	-0.31*	0.73	-0.28*	0.76	-0.31*	0.73
Hispanic			-0.76***	0.47	-0.46*	0.63
Black			0.19	1.21	0.08	1.08
Asian			-2.78**	0.06	-2.19*	0.11
White			-0.42*	0.65	-0.35*	0.70
ELL					-0.85***	0.43
SWD					0.31	1.36
Free/Reduced					0.67***	1.96
Male					1.17***	3.22
Constant	-2.83***	0.06	-2.45***	0.09	-3.53***	0.03

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

All three models show the Early Learning Program is significant in decreasing the likelihood of a behavior referral during the third quarter of the kindergarten year compared to students who did not participate in the program assuming holding all other variables constant.

Model 1 shows a significant p -value, with a negative coefficient (-.31) and an odd ratio of .73. This means that the students who participate in the Early Learning Program are less likely to receive a behavior referral, with $(1-0.73)$ 27% lower odds of getting a behavior referral. Model 2 shows a significant p -value, with a negative coefficient (-.28) and an odd ratio of .76. This means that the students who participate in the Early Learning Program are less likely to receive a behavior referral, with $(1-0.76)$ 24% lower odds of getting a behavior referral. Model 3 shows a significant p -value, with a negative coefficient (-.31) and an odd ratio of .73. This means that the

students who participate in the Early Learning Program are less likely to receive a behavior referral, with (1-0.73) 27% lower odds of getting a behavior referral.

A significant relationship was also noted for Hispanic, Asian, White, and English language learners associated with a decreased ratio/chance of having a referral, assuming holding all other variables constant. Male students who participated in the Early Learning Program are about three times more likely to receive a behavior referral during the third quarter of their kindergarten year assuming holding all other variables constant and this is consistent with the results from the entire kindergarten year, quarter 1 and quarter 2. SWD and students receiving free/reduced meals continues to be associated with an increased ratio/chance of having a referral, assuming holding all other variables constant.

Table 4.8 contains the results of a logistic regression analysis. The dependent variable in this analysis serves as a proxy measure for behavior referrals for all kindergarten students during the fourth quarter of kindergarten. The binary value was calculated by examining referrals in the data set for students who participated in the Early Learning Program compared to students in the data set who did not receive a behavior referral (1= had a referral during quarter 4 of the kindergarten year, 0 = did not have a referral during quarter 4 of the kindergarten year). All independent variables within this table were also associated with a binary value.

Table 4.8

Logistic Regression Comparisons of One or More Occurrence of a Behavior Referral During Quarter 4 in Kindergarten (N= 7,598)

	Model 1		Model 2		Model 3	
	B	Exp(B)	B	Exp(B)	B	Exp(B)
Early Learning Student	-0.18	0.84	-0.16	0.85	-0.18	0.83
Hispanic			-0.87***	0.42	-0.53*	0.59
Black			-0.20	0.82	-0.27	0.76
Asian			-1.77**	0.17	-1.23*	0.29
White			-0.72***	0.49	-0.70***	0.50
ELL					-0.82***	0.44
SWD					0.35*	1.42
Free/Reduced					0.39**	1.48
Male					1.09***	2.99
Constant	-3.00***	0.05	-2.39***	0.09	-3.25***	0.04

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

After reviewing all three models, there are no statistically significant effects of participation in the Early Learning Program. Model 1 shows a negative p -value, with a negative coefficient (-0.18) which is not significant. The odd ratio of .84 means that students are less likely to receive a behavior referral, with (1-0.84) lower odds of getting a behavior referral.

However, a significant relationship continued to exist with Hispanic, Asian, and White students in Model 2 and Model 3 associated with a decreased ratio/chance of having a referral, assuming holding all other variables constant. English language learners observed the greatest significance of all variables included in Model 3 associated with a statistically significant decreased ratio/chance of having a referral. The fourth quarter of the kindergarten year is the first time Black students observed a decreased ratio/chance of having a referral.

Table 4.9 is the result of another logistic regression model. The dependent variable in this analysis serves as a proxy measure for feelings. Table 3.5 in Chapter 3 provided a correlation

between The School Districts behavior codes, The Kansas Early Learning Standards, as well as the Early Learning Program social and emotional skills. The binary value was calculated by examining referrals in the data set for students who participated in the Early Learning Program compared to students in the data set who did not receive a behavior referral (1= had a referral during the kindergarten year relating to feelings, 0 = did not have a referral during the kindergarten year relating to feelings). All independent variables within this table were also associated with a binary value.

Table 4.9

Logistic Regression Comparisons of One or More Occurrence of a Behavior Referral Involving Feelings (N=7,598)

	Model 1		Model 2		Model 3	
	B	Exp(B)	B	Exp(B)	B	Exp(B)
Early Learning Student	-0.27	0.77	-0.24	0.79	-0.26	0.77
Hispanic			-0.71**	0.49	-0.45	0.64
Black			0.13	1.13	0.00	1.00
Asian			-1.74*	0.18	-1.19	0.31
White			-0.59**	0.55	-0.51*	0.60
ELL					-0.76***	0.47
SWD					0.31	1.37
Free/Reduced					0.68***	1.97
Male					1.09***	2.97
Constant	-3.26***	0.04	-2.81***	0.06	-3.84***	0.02

* p < 0.05, ** p < 0.01, *** p < 0.001

All three models show the Early Learning Program is not statistically significant in decreasing the likelihood of a behavior referral related to feelings during the kindergarten year compared to students who did not participate in the program. Model 1, 2, and 3 all show a negative *p*-value, with a negative coefficient. While the odd ratio for all models shows that students are less likely to receive a behavior referral, none are statistically significant. However,

a significant relationship was observed with Hispanic students, Asian students, White students in Model 2 and English language learners in Model 3 associated with a decrease ratio/chance of receiving a referral holding all other variables constant.

Table 4.10 is the result of yet another logistic regression model. The dependent variable in this analysis serves as a proxy measure for kindness. Table 3.5 in Chapter 3 provides a correlation between The School Districts behavior codes, The Kansas Early Learning Standards, as well as the Early Learning Program social and emotional skills. The binary value was calculated by examining referrals in the data set for students who participated in the Early Learning Program compared to students in the data set who did not receive a behavior referral (1= had a referral during the kindergarten year relating to kindness, 0 = did not have a referral during the kindergarten year relating to kindness). All independent variables within this table were also associated with a binary value.

Table 4.10

Logistic Regression Comparisons of One or More Occurrence of a Behavior Referral Involving Kindness (N=7,598)

	Model 1		Model 2		Model 3	
	B	Exp(B)	B	Exp(B)	B	Exp(B)
Early Learning Student	-0.35*	0.71	-0.31	0.73	-0.36*	0.70
Hispanic			-0.78***	0.46	-0.38	0.68
Black			0.06	1.06	-0.01	0.99
Asian			-18.27	0.00	-17.59	0.00
White			-0.53**	0.59	-0.51*	0.60
ELL					-0.97***	0.38
SWD					0.69***	2.00
Free/Reduced					0.45**	1.57
Male					1.06***	2.88
Constant	-3.28***	0.04	-2.82***	0.06	-3.73***	0.02

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Two of the three models show the Early Learning Program is significant in decreasing the likelihood of a behavior referral related to kindness during the kindergarten year compared to students who did not participate in the program. Model 1 shows a significant p -value, with a negative coefficient (-.35) and an odd ratio of .71. This means that the students who participate in the Early Learning Program are less likely to receive a behavior referral, with (1-0.71) 29% lower odds of getting a behavior referral. Model 3 shows a significant p -value, with a negative coefficient (-.36) and an odd ratio of .70. This means that the students who participate in the Early Learning Program are less likely to receive a behavior referral, with (1-0.70) 30% lower odds of getting a behavior referral. At the same time, a significant relationship for White students and English language learners associated with a decreased ratio/chance of receiving a referral holding all other variables constant.

Table 4.11 is the result of the final logistic regression analyses. The dependent variable in this analysis serves as a proxy measure for safety and learning. Table 3.5 in Chapter 3 provides a correlation between The School District’s behavior codes, The Kansas Early Learning Standards, and the Early Learning Program social and emotional skills. The binary value was calculated by examining referrals in the data set for students who participated in the Early Learning Program compared to students in the data set who did not receive a behavior referral (1= had a referral during the kindergarten year relating to safety and learning, 0 = did not have a referral during the kindergarten year relating to safety and learning). All independent variables within this table were also associated with a binary value.

Table 4.11

Logistic Regression Comparisons of One or More Occurrence of a Behavior Referral Involving Safety and Learning (N = 7,598)

	Model 1		Model 2		Model 3	
	B	Exp(B)	B	Exp(B)	B	Exp(B)
Early Learning Student	-0.20*	0.82	-0.17	0.85	-0.22*	0.81
Hispanic			-0.72***	0.49	-0.52**	0.59
Black			0.29*	1.34	0.19	1.21
Asian			-1.44***	0.24	-0.97*	0.38
White			-0.37**	0.69	-0.34*	0.71
ELL					-0.66***	0.52
SWD					0.49***	1.64
Free/Reduced					0.58***	1.79
Male					1.30***	3.66
Constant	-2.18***	0.11	-1.86***	0.16	-2.96***	0.05

* p < 0.05, ** p < 0.01, *** p < 0.001

Models one and three show the Early Learning Program is moderately significant in decreasing the likelihood of behavior referrals related to safety and learning during the kindergarten year compared to students who did not participate in the program. Model 1 shows a

significant p -value, with a negative coefficient (-.20) and an odd ratio of .82. This means that the students who participate in the Early Learning Program are less likely to receive a behavior referral, with (1-0.82) 18% lower odds of getting a behavior referral. Model 3 shows a significant p -value, with a negative coefficient (-.22) and an odd ratio of .81. This means that the students who participate in the Early Learning Program are less likely to receive a behavior referral, with (1-0.81) 19% lower odds of getting a behavior referral. At the same time, Hispanic, White, Asian, and English language learners associated with a decreased ratio/chance of receiving a referral holding all other variables constant. One notable observation from this table is that the characteristic of being male makes a student over three times more likely to receive a behavior referral. While the impact of the Early Learning Program is significant, the significance is not enough to counter the impact of being a male student.

Summary of Results

Table 4.12 offers a broad summary of the results of this study and chapter. Overall, the results of this study find that participation in the Early Learning Program decreases the ratio/chance a student receives a behavior referral during their kindergarten year, holding all other variables constant.

Table 4.12

Summary of Results of the Relationship of Participation in the Early Learning Program and the Likelihood of Receiving a Behavior Referral during Kindergarten (N=7,598)

Dependent Variable	Effect of the Early Learning Program (odds ratio)
All Referrals	Decreases Likelihood (0.78)
Quarter 1 Referrals	Not Significant
Quarter 2 Referrals	Decreases Likelihood (0.82)
Quarter 3 Referrals	Decreases Likelihood (0.73)
Quarter 4 Referrals	Not Significant
Behavior Referrals- Feelings	Not Significant
Behavior Referrals- Kindness	Decreases Likelihood (0.70)
Behavior Referrals- Safety/Learning	Decreases Likelihood (0.81)

During the first quarter of kindergarten, data shows no significant relationship between students who participated in the Early Learning Program compared to students who did not participate and the likelihood of receiving a behavior referral. During the second quarter of kindergarten, data shows a significant relationship exists. Students who participated in the Early Learning Program were less likely to receive an office referral. This is also true for students in their third quarter of kindergarten. During the fourth quarter of kindergarten, no significant relationship existed between participation in the Early Learning Program and the likelihood of receiving less behavior referrals compared to students who did not participate in the program.

Table 4.12 summarizes the relationship between participation in the Early Learning Program and the likelihood of receiving a behavior referral related to feelings, kindness, and safety/learning compared to students who did not participate in the program. Participation in the Early Learning Program decreases the likelihood of receiving a behavior referral related to kindness and safety/learning while a relationship did not exist for the social and emotional area of feelings.

Table 4.13 below provides a summary of the additional variables included in Model 2 of each of the analyses. The purpose is to provide an overview of the additional factors included which were Hispanic, Black, Asian, and White. The data indicates that the effects may be further magnified with certain groups and or student background characteristics.

Table 4.13

Summary of Results of the Relationship of Participation in the Early Learning Program and the Likelihood of Receiving a Behavior Referral during Kindergarten for the independent variables included in Model 2 of all Logistic Regression Models (N=7,598)

Model 2	All Referrals	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Feelings	Kindness	Safety/Learning
ELP	-0.20*	-0.15	-0.40**	-0.28*	-0.16	-0.24	-0.31	-0.17
	DL	DL	DL	DL	DL	DL	DL	DL
Hispanic	-0.69***	-0.77***	-0.77***	-0.76***	-0.87***	-0.71**	-0.78***	-0.72***
	DL	DL	DL	DL	DL	DL	DL	DL
Black	0.19	0.42*	0.28	0.19	-0.20	0.13	0.06	0.29*
	IL	IL	IL	IL	DL	IL	IL	IL
Asian	-1.47***	-2.21**	-1.73**	-2.78**	-1.77**	-1.74*	-18.27	-1.44***
	DL	DL	DL	DL	DL	DL	DL	DL
White	-0.39***	-0.34*	-0.46**	-0.42*	-0.72***	-0.59**	-0.53**	-0.37**
	DL	DL	DL	DL	DL	DL	DL	DL

Note. Early Learning Program = ELP; Decreases Likelihood = DL; Increases Likelihood = IL; Feelings = F; Kindness = K; Safety and Learning = S/L.

* p < 0.05, ** p < 0.01, *** p < 0.001

A brief overview of Table 4.13 shows when considering all variables of Model 2 (Hispanic, Black, Asian, and White), a decreased likelihood still exists for students who participate in the Early Learning Program. When including the variables for Model 2, the second quarter of kindergarten has the strongest relationship of decreasing the likelihood of receiving a behavior referral for students participating in the program while the third quarter of kindergarten shows a moderate relationship. Hispanic, Asian, and White students also see a decreased likelihood of receiving a behavior referral when participating in the Early Learning Program compared to peers who did not participate. Black students are observed to have an increased likelihood of receiving a behavior referral across all models except for quarter four of the kindergarten year.

Table 4.14 is the final summary of results for the independent variables included in Model 3 of all the logistic regression models of chapter 4. The variables of Model 3 are English language learners, students with disabilities, students receiving free and or reduced meals, and male students. The data indicates that the effects may be further magnified with certain groups and or student background characteristics.

Table 4.14

Summary of Results of the Relationship of Participation in the Early Learning Program and the Likelihood of Receiving a Behavior Referral during Kindergarten for the independent variables included in Model 3 of all Logistic Regression Models (N=7,598)

Model 3	All Referrals	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Feelings	Kindness	Safety/Learning
B								
ELP	-0.25**	-0.20	-0.44**	-0.31*	-0.18	-0.26	-0.36*	-0.22*
	DL	DL	DL	DL	DL	DL	DL	DL
ELL	-0.65***	-0.53**	-0.83***	-0.85***	-0.82***	-0.76***	-0.97***	-0.66***
	DL	DL	DL	DL	DL	DL	DL	DL
SWD	0.52***	0.64***	0.47**	0.31	0.35*	0.31	0.69***	0.49***
	IL	IL	IL	IL	IL	IL	IL	IL
Free/Reduced	0.58***	0.61***	0.49***	0.67***	0.39**	0.68***	0.45**	0.58***
	IL	IL	IL	IL	IL	IL	IL	IL
Male	1.22***	1.28***	1.19***	1.17***	1.09***	1.09***	1.06***	1.30***
	IL	IL	IL	IL	IL	IL	IL	IL

Note. Early Learning Program = ELP; Decreases Likelihood = DL; Increases Likelihood = IL; Feelings = F; Kindness = K; Safety and Learning = S/L.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Including the variables of Model 3 for all the logistic regression models included in chapter 4 shows a decreased ratio/chance of participating students receiving a behavior referral, holding all other variables constant. Looking at the entire kindergarten year and including all students who received at least one or more office referrals compared to students who participated in the Early Learning Program shows a strong relationship of decreasing the ratio/chance of receiving a behavior referral. While the second quarter of the kindergarten year also shows a strong relationship for participating students when including the variables of Model 3, only English language learners show a decreased ratio/chance of receiving a behavior referral when considering the four independent variables included in Model 3. It is also important to note the relationship of participating in the Early Learning Program and being “an English language

learner” is significant for all regression models of chapter 4. If a student has a disability, receives free and or reduced meals, and or is a male student, they have an increased likelihood of receiving a behavior referral after considering the positive impact of the Early Learning Program.

Summary

In this chapter, the researcher has reported the descriptive and inferential results obtained from statistical analyses. In particular, the logistic regression results are explained to answer the hypotheses established to measure the relationship between participation in the Early Learning Program and social emotional learning skills measured across the kindergarten year, quarterly, and with the inclusion of the variables of the study. In the next chapter, chapter 5, the researcher will further situate the statistical results in the context of the particularity of the research site and the population from which the sample data were drawn. Explanations will be provided to the observed patterns/findings, particularly when they are inconsistent with or opposite to the broad literature that had guided the current study. For organizational purposes, chapter 5 will be structured into sections that correspond to each of the three research questions. Also included are the discussions of the implications for future research, policy, and practice. To conclude, the researcher underscores key takeaways for readers regarding the study and contributions to the field.

Chapter 5 - Summary, Implications, and Conclusions

The final chapter of this study will review the purpose and summarize findings as it relates to each research question. Following the summary of findings, a discussion section is included for each of the research questions as it relates to the literature presented in chapter 2. Connections to the study's theoretical and conceptual frameworks will also be made. Recommendations for future research and implications for policy and practice will culminate this chapter along with a final summary at the chapter's end. Before introducing the summary of findings as it relates to each research question, the research purpose will be reviewed.

Research Purpose

As stated previously, the purpose of this research study was to determine if participation in the Early Learning Program improved the transition for students entering kindergarten. Specifically, did students who participate in the Early Learning Program demonstrate improved social emotional skills? A gap in the literature exists as this study utilized behavior referrals as a proxy for measuring social emotional learning, while connecting the behavior referral categories to the Kansas Early Learning Standards. While a previous study was conducted to see if students who participated in pre-kindergarten received fewer behavior referrals, no other study has explored participation in pre-kindergarten learning by examining the impact of behavior referrals during the following year in kindergarten, with a correlation to specific early learning standards (Nold et al., 2021). This study examined the relationship between students enrolled in the Early Learning Program in The School District compared to peers who did not participate in the Early Learning Program. The research explored the relationship of the likelihood a student in the Early Learning Program would receive a behavior referral compared to peers who did not participate in the program. This study utilized student disciplinary incidents as reported in the student

management system for The School District. The researcher reviewed all disciplinary data for students in kindergarten from 2014 to 2023, except 2021, as no program was offered due to the pandemic. The data sample for this study was disaggregated by the following independent variables: 1) race, 2) gender, 3) free and reduced lunch (low socio-economic status), 4) students with disabilities, and 5) English Language Learners. Next, a summary of findings is presented related to each research question.

Summary of Findings

Research Question One

Is there is a relationship between participation in the Early Learning Program and social emotional learning skills? Students who participated in the Early Learning Program received fewer behavioral referrals than peers who did not participate in the program. Overall, 10.7% of the participants of the Early Learning Program received at least one behavioral referral while 13.1% of students who did not participate in the program received at least one behavioral referral. The logistical regression analyses in Table 4.4 show students who participate in the Early Learning Program have a statistically significant decreased ratio/chance of receiving a behavior referral, holding all other variables constant. These results support the hypotheses to research question one with a relationship existing between participation in the Early Learning Program and social emotional learning skills. The proxy for measuring social and emotional learning skills for this study was behavior referrals during the kindergarten year.

Tables 4.9, 4.10, and 4.11 were the logistic analyses for the three specific social emotional learning skills explicitly taught during the Early Learning Program. As outlined in previous chapters, the three skills taught during the Early Learning Program are feelings, kindness, and safety/learning. Each of these social emotional skills are a focus for one week

during the three-week program. The Early Learning Program is not statistically significant in decreasing ratio/chance of a behavior referral related to feelings during the kindergarten year, holding all other variables constant. The Early Learning Program is statistically significant in decreasing ration/chance of a behavior referral related to kindness during the kindergarten year. Finally, the Early Learning Program is moderately significant in decreasing the ratio/chance of a behavior referral related to safety and learning during kindergarten. Overall, a relationship exists between participation in the Early Learning Program and social and emotional learning skills.

Research Question One A

Is there a relationship between participation in the Early Learning Program and social emotional learning skills captured at quarterly intervals (quarter one, two, three, and four) through the kindergarten school year? Based on the descriptive characteristics of the Early Learning Program, a relationship does exist between participation in The Early Learning Program and social emotional learning skills captured at quarterly intervals (quarters one, two, three, and four) through the kindergarten school year. By the end of each quarter of kindergarten from 2015-2024 (except for 2021 due to no program being offered), students who participated in the Early Learning Program had a decreased ratio/chance of receiving a behavior referral. These results also confirm the hypotheses presented in chapter 3. Based on the descriptive statistics, participation in the Early Learning Program suggests students are acquiring social and emotional learning skills translating into less behavior referrals.

The logistic comparison models of Table 4.5, 4.6, 4.7, and 4.8 provided further insight into this research question. Table 4.5 (behavior referrals during quarter one of kindergarten) showed no noticeable effects of participation in the Early Learning Program regarding behavior referrals at the end of the first quarter of kindergarten during the years included in this data set.

Table 4.6 (behavior referrals during quarter two of kindergarten) demonstrated the Early Learning Program is significant in decreasing the ratio/chance of a behavior referral during the second quarter of the kindergarten year, holding all other variables constant. Table 4.7 (behavior referrals during quarter 3 of kindergarten) showed the Early Learning Program is significant in decreasing the ratio/chance of a behavior referral by the end of the third quarter of the kindergarten year, holding all other variables constant. Finally, Table 4.8 (behavior referrals during quarter four of kindergarten) showed there are no noticeable effects of participation in the Early Learning Program during the fourth quarter of the kindergarten year. Overall, participation in the Early Learning Program is more likely to decrease the ratio/chance of a behavior referral for participants during the second and third quarters of the kindergarten year based on the logistical comparisons provided in Table 4.6 and 4.7, holding all other variables constant. Students who participate in the Early Learning Program demonstrate increased social emotional learning skills during the second and third quarter of kindergarten.

Research Question Two

Is there a relationship between participation in the Early Learning Program and social emotional learning skills when controlling for race, gender, free and reduced lunch (low socioeconomic status), students with disabilities, and English Language Learners? The logistic regression analyses of Table 4.4 (one or more behavior referrals during kindergarten) demonstrate that even after introducing the variables of race in Model 2 and the variables (English language learners, students with disabilities, students receiving free and or reduced meals, and gender) in Model 3, overall, participation in the Early Learning Program has a statistically significant impact. These results confirm the hypotheses presented in chapter 3. When looking at individual variables in Model 2 of Table 4.4, Hispanic, Asian, and White

students note a significant relationship is observed. When reviewing Model 3 of Table 4.4, a relationship continues to exist for Hispanic, Asian, and White students in addition to English language learners. However, data shows students who are Black, have disabilities, receive free and or reduced lunch, and who are male, have an increased ratio/chance to receive a behavior referral. This is when comparing all kindergarten students in the data set to those who participated in the Early Learning Program. Tables 4.13 and 4.14 also provide an overview to quickly see the relationship between participation in the Early Learning Program and the variables included in research question two.

Table 4.13 shows the relationship across all eight logistic regression analyses included in chapter 4. The variables included in Table 4.13 are students who are Hispanic, Black, Asian, and White. Across all logistic regression analyses, Asian students noted a significant relationship between participation in the Early Learning Program and a decreased ratio/chance of receiving a behavior referral, holding all other variable constant. Black students observed an increased ratio/chance of receiving a behavior referral across seven of the eight logistic regression analyses included in chapter 4.

As noted in Table 4.14, a significant relationship exists for English language learners and participation in the Early Learning Program. This significant relationship was observed across all eight logistic regression analyses. However, the other variables included in Model 3 of all logistic regression analyses did not observe the same relationship. Students with disabilities, receiving free and or reduced meals, and male students all showed an increased ratio/chance of a behavior referral during kindergarten. Of all variables included in this study, being male was the most significant variable measured which increased the ratio/chance of a student receiving a behavior referral.

Connections to Literature

Research Question One

Is there is a relationship between participation in the Early Learning Program and social emotional learning skills? Based on the literature review in chapter 2, a clear rationale was provided to support the importance of early learning. Specifically, the literature review supported early learning with a focus on teaching social emotional skills. The years prior to kindergarten are a critical time to support brain development and create a positive learning environment to support student learning (Duke University Center for Child and Family Policy, 2017). When students begin their school experience on a positive trajectory with quality pre-kindergarten support focused on social emotional learning and academics, they are more likely to be successful later in life (Blair & Raver, 2015). The research also showed parents, administrators, and teachers identify the importance and need to support the social emotional needs of early learners. When surveyed, parents reported students should be ready to interact socially prior to academics (Kim et al., 2005). In addition, teachers and administrators identify supporting students' social emotional needs as a critical priority (Public Health Service, 2000). This study adds to literature as a significant relationship does exist for students who participate in the Early Learning Program. Students who participate in the Early Learning Program have a statistically significant decreased ratio/chance of receiving a behavior referral, holding all other variables constant. This information supports parents, teachers, and administrators as they work to find ways to support students entering kindergarten.

Research also clearly links early social-emotional development, emotional control, self-regulation, attention, and appropriate social skills, to school readiness (Green et al., 2012). This study addressed the question and gap in the literature to determine if a three-week program, prior

to kindergarten, improves social emotional learning skills. As reviewed previously, students who participated in the Early Learning Program received fewer behavioral referrals than peers who did not participate in the program. Chapter 2 also highlighted many early intervention programs such as The Chicago Child-Parent Centers, established in 1967 to present day (Reynolds et al., 2011; Varshney et al., 2020). Many of the early intervention programs highlighted in chapter 2 offered programs beyond just three weeks prior to kindergarten. In addition, the programs reviewed in chapter two varied in structure, curriculum resources, and overall design which may contribute to positive effects on students. Because this study focused on a three-week program, the results of this study are important in providing a significant contribution to literature. From a feasibility perspective, this is significant considering the longer a program's duration, the more costly it can become. The researcher determined a three-week program demonstrated an increase in social emotional skills for student participants. A review of the programs in chapter 2 provides evidence of similar results to this study's findings, as well as differences in certain variables. These similarities and differences are discussed below.

The results of this study are consistent with the results of the Stars Program, Preschool PATHS, and the Bridge to Kindergarten Program, all reviewed in chapter 2. However, the results of this program differ from the Summer Success Program and the Jump Start Program. The Stars Program found students who participated in a transitional program prior to kindergarten observed a better social transition to kindergarten (Berlin et al., 2011). Based on the results of this study, there is a significant relationship between participation in the Early Learning Program and a better social transition during kindergarten. Of all the programs reviewed in chapter 2, the Stars Program was the most similar to The School District's Early Learning Program regarding the length of the program and instructional focus. Both the Early Learning Program and the Stars

program focused on literacy, numeracy, social emotional skills, routines, transitions, and parent engagement. It is possible beyond just a focus on social emotional skills, the other variables included in the programming of the Early Learning Program and the Stars program have a positive impact on social emotional learning. The results of the Stars Program were based on questionnaires completed by parents and teachers rather than a quantitative analysis. The current study was able to statistically test such relationships and validate the positive effects from participating in a program with similar duration and instructional focus.

The Preschool PATHS program was designed to support behavior and emotional concerns and to increase students' social competence (Hughes & Cline, 2015). This study found the group which implemented the full version of the Preschool PATHS curriculum, focusing on social competence skills, outperformed the group that did not receive the Preschool PATHS curriculum (Hughes & Cline, 2015). The current study and the Preschool PATHS program both found that intentional instruction on social emotional skills decreased the likelihood of behavior referrals during the kindergarten year.

The Bridge to Kindergarten Program was established by a school district trying to determine if adding instruction around self-regulation would improve the transition to kindergarten and kindergarten readiness (Duncan et al., 2018). The results of this study found students who participated in the program improved performance on self-regulation, math, and literacy skills (Duncan et al., 2018). This program's purpose and intent align with The School District's commitment in providing the Early Learning Program. In the area of self-regulation as part of social emotional skill acquisition, the Bridge to Kindergarten Program and the Early Learning Program observed similar success.

The Summer Success Program reviewed in chapter 2 was created to support students entering kindergarten and targeted students from low-income families without prior learning experiences (Khan et al., 2017). The Summer Success Program was offered for four weeks prior to the beginning of kindergarten. The program focused on instruction around math, literacy, social-emotional competencies, and motor skills. At the conclusion of the program, the results showed statistically significant gains in all four areas of instruction (Khan et al., 2017). The results of this program differ from the results of the Early Learning Program as students who qualified for free and or reduced meals did not show statistically significant gains in their ability to demonstrate social emotional skills. It is possible the results of this study differ since The Summer Success Program was offered for an extra week beyond the Early Learning Program. Additionally, The Summer Success Program specifically targets students from low-income families without prior learning experiences. The School District offers the Early Learning Program to any interested family. The intentionality of programing targeting specific criteria for enrollment in The Summer Success Program could explain the observed differences in results when compared to this study. The Early Learning Program does not intentionally focus on only enrolling students who do not have prior learning experiences or low-income families. It is possible the instruction for students with no previous learning experiences varies compared to a classroom with more students who have had previous learning experiences. The variation of the makeup of the classroom in addition to the extra week of programing, could help to explain the observed differences. It is also possible the design and structure of the study of the Summer Success Program differs from this study resulting in differences in observed results.

The Jump Start Program design was also similar to the Early Learning Program. The Jump Start Program focused on literacy and social emotional programing (Harris, 2010). The

Jump Start Program focused on students from low-income settings to see if the early intervention showed improved literacy and social emotional gains at the program's end. Students in the Jump Start Program made significant gains in social emotional outcomes and literacy (Harris, 2010). The results of this study did not produce the same results as students who qualified for free and or reduced meals as students in the Early Learning Program did not demonstrate increased social emotional learning. In fact, students who qualified for free and or reduced meals and participated in the Early Learning Program were more likely to receive a behavioral referral. The Jump Start Program focused on students from low-income settings. It is possible the observed differences between the results of these programs were due to factors such as instructional strategies implemented, class size, or parent engagement. Further, it is also possible the study design and structure of The Jump Start Program resulted in differences in the observed results. Another possible explanation for the differences in the observed results of The Jump Start Program and this study could be related to cell differences. For example, the participation rate of students who are considered low-income between these two studies could have contributed to differences in the observed results.

The social emotional and academic learning needs of students must be addressed to prepare all students for the transition to kindergarten (Bowman & Donovan, 2011). This study found the three-week Early Learning Program increases participating students' social emotional readiness as measured by behavior referrals and shared similar overall results with three programs reviewed in chapter 2. Opposite results for two of the programs discussed in chapter 2 when compared to the Early Learning Program were achieved when considering the effect on students considered low-income.

Research Question One A

Is there a relationship between participation in the Early Learning Program and social emotional learning skills captured at quarterly intervals (quarter one, two, three, and four) through the kindergarten school year? The results of this study found a difference in the relationship of participation in the Early Learning Program and social emotional learning skills depending on the quarterly intervals of the kindergarten year. This study found the relationship is significant at the conclusion of the second and third quarters of kindergarten for participating students while no significant relationship existed for the first and fourth quarters. The researcher returned to the literature review of chapter 2 to help understand why a greater significance was noted at the conclusion of the second and third quarter of the kindergarten year. One explanation for why a significant relationship was not observed at the first quarter's end could be related to the transitional activities and relationship building strategies of the Early Learning Program. While the Early Learning Program is designed to be hosted at participating students' future elementary schools, it was not always possible. The School District has over thirty elementary schools and the Early Learning Program was not able to provide a program at each of the district's elementary schools. This is important because research suggests that when students can create relationships with the elementary school they will attend, it may allow students to begin to understand the expectations and social demands of the new setting (Entwisle, 1995). It is possible the lack of relationships observed at the conclusion of the first quarter of the kindergarten year between participation in the Early Learning program and non-participation were related to a lack of familiar transitional activities in the Early Learning Program when students did not transition into the same elementary school. Students with limited opportunities to interact with peers in a familiar environment may alter or delay development (Ladd &

Burgess, 1999). Another possible explanation for the differences observed between each quarter of this study could be related to the personality and demeanor of the classroom teacher. Research in chapter 2 stated students who have teacher with a caring and warm disposition were less likely to receive a behavior referral. It is possible the differences in the observed results between quarters could be related to the demeanor of the classroom teacher, especially if the classroom teacher doesn't create a positive classroom environment during the first quarter. Additionally, if by the end of the school year the classroom teacher no longer has a positive demeanor to finish the year strong, it has the potential to impact students in areas related to social emotional skills and or classroom management. This could result in an increase in behavior referrals for students.

Overall, early education and intervention programs provide opportunities for a more successful transition and success (Lazar & Darlington, 1982). However, the researcher pondered other potential reasons for a lack of relationship observed at the conclusion of the first quarter of kindergarten for participating students. Because research suggests early intervention programs which focus on creating an environment similar to the expectations in kindergarten help prepare students for the social emotional skills needed to be successful (Eckert et al., 2008), it is possible the length of the program could be a variable. The Early Intervention Program is only three weeks long prior to kindergarten. It is possible that the length of the program as well as the fact the Early Learning Program is not offered full day, could limit the ability for participating students to experience an environment similar to kindergarten. This rationale, however, wouldn't apply to the results observed at the conclusion of the fourth quarter of the kindergarten year.

The literature review supported the more transitional activities kindergarten teachers were able to implement prior to kindergarten, the higher students were rated with prosocial skills with peers (Cook & Coley, 2017). It is possible the lack of relationship observed at the conclusion of

the first quarter of kindergarten for participating students was not due to the program design of the Early Learning Program, rather a lack of transitional activities implemented by the elementary school and kindergarten teacher.

The findings of this study, when considering connections to the literature, were dissimilar and did not provide a rationale for the lack of significance observed at the conclusion of the fourth quarter of the kindergarten year for Early Learning Program students. Most of the literature review contradicts the findings of this study related to the positive impact on social emotional skills and early intervention. However, one study did conclude that students who participate in early learning opportunities and are considered advantaged, may have adverse effects on their behavior (Magnuson et al., 2004). One possibility is that the Early Learning Program participation rate included more students who are considered advantaged. This could explain why the results were inconsistent across the quarters during the kindergarten year. It is also possible the differences in the design of this study and the methods utilized to determine social emotional growth are the cause for differences in the results. Finally, it is also possible the utilization of behavior referrals as a proxy for measuring social emotional learning is the reason the results of this study show differences in relationships when looking at quarterly intervals. For example, if a qualitative research design was used, it is possible the results may not show a decreased relationship during the first and fourth quarters.

Research Question Two

Is there a relationship between participation in the Early Learning Program and social emotional learning skills when controlling for race, gender, free and reduced lunch (low socioeconomic status), students with disabilities, and English Language Learners? Most of the early intervention programs reviewed in chapter 2 focused on supporting students who are considered

disadvantaged. This is most likely due to the fact disadvantaged students experience more positive results from early intervention experiences (Magnuson et al., 2007) and likewise, because only 40% of students who enter kindergarten have the social-emotional skills needed to be successful in kindergarten (Ashdown & Bernard, 2012). Evidence exists to support the positive impact of early intervention as well as the fact students are entering kindergarten with a lack of social emotional skills needed to be successful. The following is a brief review of the evidence of success with early intervention and students considered disadvantaged. Duke University Center for Child and Family Policy (2017) found there is a positive impact of early learning on brain development and performance of all students, and specific evidence to support students from low-income families. Duncan and Magnuson (2011) found students considered low-economic status exhibit more teacher-reported antisocial behavior compared to non-low economic status students. The Jump Start Program reviewed in chapter 2 focused on students from low-income families and found participation in the program resulted in significant gains in social emotional outcomes and literacy (Harris, 2010). The Summer Success Program specifically targeted students from low-income families and found statistically significant gains for participating students (Khan et al., 2017). When analyzing the results of this study including race, overall, participation in the Early Learning Program decreases the likelihood of students receiving a behavior referral. When looking at the variables of race independently, participation in the Early Learning Program for Hispanic, Asian, and White students decreased the likelihood of students receiving a behavior referral. However, Black students were more likely to receive a behavior referral.

This study's results differ from most of the literature review included in chapter 2. This study found students who received free or reduced meals and had a disability had an increased

likelihood of receiving a behavior referral. This is after considering the positive relationship of participation in the Early Learning Program. It is possible the sample size of this study as well as the length of the program could have contributed to the results related to students who receive free and or reduced meals as well as students with a disability. It is also possible that utilizing data for students who qualify for free and reduced may not be the best measure to determine at risk students. While finding data related to students who qualify for free and or reduced meals is easily accessible, it may not be the best measure for determining students who are considered at risk. Other possible explanations related to the differences observed in this study could easily have been contributed to the structure and design of the studies, differences in the cell data related to participation rates of these variables, or even the demeanor of the classroom teacher. Another possibility to consider is the proxy used in this study to measure social emotional skills. This study utilized behavior referrals to determine the impact of the program related to social emotional learning where the other studies utilized teacher and or parent surveys. When reviewing the results of gender, this study was similar to the literature presented. The results of this study found male students were more likely to receive a behavior referral. It is possible gender stereotypes related to male students could be a contributing factor in the observed results of this study. If the classroom teacher supports gender stereotypes, then this could impact the rate at which male students receive behavior referrals during the kindergarten year. For example, if a teacher assumes because a student is male, they will probably behave poorly at recess with their behavior, then the male student is already more likely to receive a behavior referral. In the study of The Stars Program, female students observed a better social transition to kindergarten (Berlin et al., 2011). Another study included in the literature review found male students received more behavior referrals than female when comparing those who participated in pre-kindergarten

programs (Nold et al., 2021). Another possible reason male students were more likely to receive a behavior referral in this study and why this study is consistent with the literature is because male students are more likely to misbehave in the school setting (Heyder et al., 2021). Finally, when trying to explain the differences of this study related to students who qualify for free and or reduced meals, students who have a disability, male students, and Black students, the research believes the data set could be a contributing factor. For example, if the data for this study only included the years prior to the pandemic, would the results differ? Is it possible because this study includes the years of the Early Learning Program after the pandemic that these years are creating the differences observed in other studies?

Overall, the results of this study, when controlling for race, gender, free and reduced lunch (low socio-economic status), students with disabilities, and English Language Learners is mixed. The results indicate when controlling for race overall, participation in the Early Learning Program does increase students' social emotional skills during kindergarten. However, even when taking the positive impact of the Early Learning Program into consideration, Black students are still more likely to receive a behavior referral. The results of this study are similar to the literature regarding gender whereby male students are more likely to receive a behavior referral. Students who are considered low-economic status and or have a disability are more likely to receive a behavior referral and these results are not consistent with the literature. Finally, students who are English language learners did see improved social emotional skills and were less likely to receive a behavior referral after participation in the Early Learning Program.

Theoretical Framework/Conceptual Framework

As noted in chapter 3, this study included both a theoretical and conceptual framework. The theoretical framework for this study is important and sets the stage for the

developmental stages of learning in a setting like the Early Learning Program. The theoretical framework utilized was sociocultural theory (Bowman & Donovan, 2001). Sociocultural theory states learning and development takes place in a social setting when cognition is engaged (Bowman & Donovan, 2001). This theory offers an opportunity to understand social emotional learning in the context of a classroom setting. The Early Learning Program was designed to help prepare students for the transition to kindergarten, focusing on early literacy, mathematics, and social emotional learning. The structure and setting of the Early Learning Program provide students with a place where they become cognitively engaged in a social setting. Vygotsky (1978) introduced the concept of the ZPD, also included in this study's theoretical framework. The work of Vygotsky (1978) suggests that learning for children starts the day they are born, and children learn by interacting with their environment. The ZPD is met when students are pushed just beyond what they can do independently. The results of this study found the social setting of the Early Learning Program did have a positive relationship to social emotional learning skills. Overall, the social setting of the Early Learning Program had a statistically significant relationship between participation and social emotional skills. Research included in the literature review also supports that students who participate in pre-kindergarten programming had less behavior referrals compared to peers who did not have a pre-kindergarten learning experience (Nold et al., 2021).

Because social emotional skill acquisition was measured by the proxy of behavior referrals, this study also included a conceptual framework. The researcher utilized the Kansas Early Learning standards in correlation to the social emotional skills taught in the Early Learning Program to determine the relationship of social emotional growth for participating students as measured by behavior referrals. The Kansas Early Learning Standards served as a conceptual

framework connecting behavioral referral categories to the social emotional learning outcomes taught during the Early Learning Program (Adhima et al., 2024). Correlations presented in the findings between social emotional learning skills (feelings, kindness, safety/learning) taught in the Early Learning Program, The School District Behavior Categories, and The Kansas Early Learning Standards provided an overall picture of student benefit.

The School District Behavior Categories related to *feelings* included six behavior codes: *kindness* included three behavior codes, and *safety and learning* included fourteen behavior codes. The results of this study in relation to participation in the Early Learning Program and the social emotional skill of *feelings*, showed the program was not significant for participating students. The results of this study in relation to participation in the Early Learning Program and the social emotional skill of *kindness*, showed the program was significant for participating students. Finally, the third social emotional skill taught during the Early Learning Program was *safety and learning*. The results of this study in relation to the instruction of safety and learning showed the program was significant for participating students. The results of this study in relation to the conceptual framework suggest participation in the Early Learning Program increases student social emotional skills in relation to kindness and safety and learning as measured by behavior referrals. One rationale for these results could be related to the subjectivity of feelings or the specific behavior codes the researcher placed under the social emotional skill related to feelings. At the same time, someone being kind or demonstrating safe behavior may be considered less subjective and potentially easier to identify.

Recommendations for Future Research

This study confirmed that overall, students participating in the Early Learning Program demonstrated improved social emotional skills during the kindergarten year. Future research should be explored to expand this knowledge base and topics are suggested below.

First, future research could be conducted to investigate if a six-week (or longer) early intervention program shows an even greater significance for participants and their acquisition of social emotional skills. The results of this future research would also be valuable to see if the results showed a more positive impact for students who qualify for free and or reduced meals, students with disabilities, male students, and Black students. Additional research could include collecting data on the impact of a similar program implemented between kindergarten and first grade as well as examining whether the age of the student is an important variable when measuring the impact of early learning programs and social emotional skill acquisition.

A second area of future research would be to include qualitative methods to examine program effectiveness of early intervention programs, including the Early Learning Program. For example, what routines, procedures, or transitional activities related to the instruction of social emotional skills contributed to this study's results from the perspective of teachers, principals, and parents? The Early Learning Program intentionally places students at program sites where they will attend kindergarten. Chapter 2 highlighted research suggesting early intervention programs which focus on creating an environment with similar expectations in kindergarten help prepare students for social emotional and relational skills necessary to be successful in the school setting (Eckert et al., 2008). A qualitative study on the specific routines, procedures, or transitional activities provided by invested stakeholders would provide valuable information to the literature.

Third, more research would be beneficial to the literature regarding the specific skills taught during the Early Learning Program. Would the results of this study still be significant if the social emotional learning skills were expanded or changed? For example, if teaching the explicit skill of keeping your hands to yourself was included, would the results of this study be impacted?

Fourth, the results of the Early Learning Program were not consistent with other programs reviewed in the literature review, specifically on supporting students considered low-income. Research showed students considered disadvantaged were most likely to see greater gains with early intervention. Why did Early Learning Program students who qualified for free and or reduced meals not see statistically significant gains as other programs of similar design?

Finally, every logistic regression model showed male students were more likely to receive a behavior referral during their kindergarten year. This is after factoring in the overall positive impact of the Early Learning program. Further research could explore causal factors for male students in kindergarten making them more likely to receive a behavior referral and less likely to demonstrate social emotional skills. In summary, recommendations for future studies include expanding the program's duration, exploring specific transitional activities in a qualitative study, expanding or altering the social emotional skills taught during an early intervention program, exploring the variables of students who qualify for free and or reduced meals as well as male students.

Implications for Policy and Practice

The results of this study further demonstrate the importance and impact of early intervention and provide evidence for a need for continued funding and policy. The length of the program was only three weeks, making the results of this study even more important. The United

States underinvests in early intervention programs (Heckman & Masterov, 2007). The results of this study further support and provide evidence that early learning programs can make a positive difference for students as they transition to kindergarten, substantiating a need for continued funding and investment of national, state, and local resources in early intervention. Another policy implication connects the critical role of early intervention equipping students with important building blocks and necessary skills to complete high school and become productive members of society (Duncan & Magnuson, 2011). Furthermore, opportunities for all children to access pre-kindergarten learning experiences and development of important social emotional skills aid in social skills that promote academic success (Parlakian, 2003). School districts should use this study's results to support and promote early intervention programs, especially since funding streams for early learning programming often are supported at the local level. In Kansas, grant opportunities are available for school districts to provide programming for pre-kindergarten. However, funding is based on specific criteria pre-school children must meet to attend, making funding from local resources not comparable to funds received from state-level resources. This study adds an important contribution showing early intervention, with the commitment of a local school district, has a direct benefit to students in gaining critical social emotional learning skills and helping to decrease behavior referrals in kindergarten. This supports the justification for additional funding at the national and state level. To have a lasting impact on children, early learning opportunities need to be provided prior to kindergarten to support cognitive and social development (Ramey & Ramey, 2004).

The results of this study found the three-week Early Learning Program demonstrates that participants are less likely to receive a behavior referral and has implications for practice. Since the proxy for this study was behavior referrals, students who participate in the Early Learning

Program demonstrate increased social emotional skills compared to peers who did not participate in the program. This study provides further evidence of the importance of early intervention, specifically, early intervention with a focus on social emotional learning. Other districts across the nation can utilize the results of this study to support the implementation of early intervention programs. This study will be especially beneficial to school districts who see a need to support the social emotional skills of their student population.

Additionally, the connections to early learning standards related to kindness and safety and learning showed a significant relationship for students in the Early Learning program. This would be an ideal place for school districts to focus as they begin to create or implement an early learning program with the purpose of increasing the social emotional skills of students. When looking at The School District's behavior categories, linked to behavior referrals related to kindness, two important behaviors were noted, disrespect and a lack of respect. The Early Learning Program intentionally focuses on the instruction of kindness which translated into increased social emotional skills for participants in their ability to be kind and to not be disrespectful. In addition, the Kansas Early Learning Standards associated with the behavior referrals linked to kindness included social development, responsible decision making, and problem solving.

When reviewing the School District's behavior categories linked to behavior referrals related to safety and learning, many referral areas were included. The areas included in this category were inappropriate treatment of materials, not following directives, disruption of school/class activities, disruption of the classroom/cafeteria/hallway, excessive inappropriate activities, unauthorized object, leaving the classroom without permission, property misuse, fighting, physical contact, horseplay, rough play, unsafe act, and banned object. The social

emotional skills explicitly taught during the Early Learning Program in safety and learning were also linked to the Kansas Early Learning Standards of personal development, responsible decision making, problem solving, and social development. The behavior categories linked to safety and learning included a multitude of behaviors and yet, the results of this study found participating students of the Early Learning Program were able to demonstrate improved social emotional learning skills related to these areas. This information is important to other school districts and the literature.

The results of this study found intentional instruction on kindness and safety and learning had a positive relationship with students' ability to demonstrate these social emotional skills during the kindergarten year. This is valuable information for other school districts wanting to support students in their learning community.

Conclusion

This study impacts districts across the nation in pursuit of supporting their earliest learners as they start their school careers. Early intervention can better transition all students to kindergarten, and certain groups of students benefit more from early intervention than others. There is a strong relationship between participation in the three-week Early Learning Program and social emotional skills as measured by behavior referrals during the kindergarten year. School districts now have evidence and a model to utilize when designing early intervention programs to best support social emotional learning; a priority noted by parents, teachers, and administrators alike. The results of this study provide evidence that intentional instruction on social emotional learning prior to kindergarten is critical for student success. The researcher will utilize this study to support the continuation of the Early Learning Program within The School District. In addition, the researcher hopes the information gained from this study can be used to

support expanding the Early Learning Program to each elementary school within The School District. Finally, based on the results of this study, the researcher would like to further explore the variables of students with disabilities, students receiving free and or reduced meals, male students, and Black students in relation to early learning programs. Specifically, understanding why these variables did not observe the same decreased likelihood of receiving a behavior referral after participating in the Early Learning Program.

References

- Adhima, J., Francois, J., Forker, J., Gilbert, M., Goosen, M., Kennedy, K., . . . Gruss, J. (2024). *Kansas early learning standards building the foundation for successful children*.
https://www.ksde.org/Portals/0/Early%20Childhood/Kansas_Early_Learning_Standards.pdf
- Ali, M. M., West, K., Teich, J. L., Lynch, S., Mutter, R., & Dubenitz, J. (2019). Utilization of mental health services in educational setting by adolescents in the United States. *The Journal of School Health.*, 89(5), 393–401. <https://doi.org/10.1111/josh.12753>
- American Institutes for Research. (2015). *The impact of transitional kindergarten on kindergarten readiness. A report from the study of California's transitional kindergarten program: Executive summary*.
<https://www.air.org/sites/default/files/downloads/report/Transitional-Kindergarten-Final-Executive-Summary-Research-Brief-June-2017-rev.pdf>
- Andrews, R., Jargowsky, P. A., & Kuhne, K. A. (2012). *The effects of Texas's targeted pre-kindergarten program on academic performance*.
https://www.nber.org/system/files/working_papers/w18598/w18598.pdf
- Arteaga, I., Humpage, S., Reynolds, A. J., & Temple, J. A. (2014). One year of preschool or two: Is it important for adult outcomes? *Economics of Education Review*, 40, 221–237.
<https://doi-org.er.lib.k-state.edu/10.1016/j.econedurev.2013.07.009>
- Ashdown, D., & Bernard, M. (2012). Can explicit instruction in social and emotional learning skills benefit the social-emotional development, well-being, and academic achievement of young children? *Early Childhood Education Journal*, 39(6), 397-406.
<https://doi.org/10.1007/s10643-011-0481-x>

- Barber, B. R. (1994). *An aristocracy of everyone: The politics of education and the future of America*. Oxford University Press.
- Barnett, S., Lamy, C., & Kwanghee, J. (2005). *The effects of state prekindergarten programs on young children's school readiness in five states*.
<https://www.policyarchive.org/download/96350>
- Barnett, W. S. (1996). *Lives in the balance: Age-27 benefit-cost analysis of the High/Scope Perry preschool program* (ED410024). ERIC. <https://eric.ed.gov/?id=ED410024>
- Barnett, W. S., Carolan, M. E., Fitzgerald, J., & Squires, J. H. (2011). *The state of preschool 2011: State preschool yearbook*. National Institute for Early Education Research.
- Berlin, L. J., Dunning, R. D., & Dodge, K. A. (2011). Enhancing the transition to kindergarten: A randomized trial to test the efficacy of the "Stars" summer kindergarten orientation program. *Early Childhood Research Quarterly*, 26(2), 247-255.
<https://doi.org//dx.doi.org.er.lib.k-state.edu/10.1016/j.ecresq.2010.07.004>
- Blair, C., & Raver, C. C. (2015). School readiness and self-regulation: A developmental psychobiological approach. *Annual Review of Psychology*, 66(1), 711-732.
<https://doi.org/10.1146/annurev-psych-010814-015221>
- Blair, C. B., McKinnon, R. D., & Daneri, M. P. (2018). Effect of the tools of the mind kindergarten program on children's social and emotional development. *Early Childhood Research Quarterly*, 43, 52-62. <https://doi.org/10.1016/j.ecresq.2018.01.002>
- Bogard, K., & Takanishi, R. (2005). *Social and policy report giving child and youth development knowledge away* (ED521747). ERIC. <https://files.eric.ed.gov/fulltext/ED521747.pdf>
- Bowman, B., & Donovan, S. (2001). *Eager to learn: Educating our preschoolers (full report and executive summary)* (ED447963). ERIC. <http://files.eric.ed.gov/fulltext/ED447963.pdf>

- Burchinal, M. R., Krowka, S., Newman-Gonchar, R., Jayanthi, M., Gersten, R., Wavell, S., Lyskawa, J., Haymond, K., Bierman, K., Gonzalez, J. E., McClelland, M. M., Nelson, K., Pentimonti, J., Purpura, D. J., Sachs, J., Sarama, J., Schlesinger-Devlin, E., Washington, J., & Rosen, E. (2022). *Preparing young children for school. Educator's practice guide. WWC 2022009*.
https://ies.ed.gov/ncee/WWC/Docs/PracticeGuide/TO4_PRACTICE_GUIDE_Preparing-for-School_07222022_v6.pdf
- Campbell, F. A., Ramey, C. T., Pungello, E., Sparling, J., & Miller-Johnson, S. (2002). Early childhood education: Young adult outcomes from the abecedarian project. *Applied Developmental Science, 6*(1), 42-58. https://doi.org/10.1207/S1532480XADS0601_05
- Campbell, S. B. (1985). *Family characteristics and child behavior as precursors of externalizing symptomatology at school entry* (ED 262871).
<http://files.eric.ed.gov/fulltext/ED262871.pdf>
- Capizzano, J., Adams, G., & Sonenstein, F. (2000). *Childcare arrangements for children under five: Variation across states*.
<https://www.urban.org/sites/default/files/publication/62101/309438-Child-Care-Arrangements-for-Children-Under-Five.PDF>
- Capp, G. (2015). Our community, our schools: A case study of program design for school-based mental health services. *Children & Schools, 37*(4), 241-248.
<https://doi.org/10.1093/cs/cdv030>
- Chen, Y., Li, L., Li, W., Guo, Q., Du, Z., & Xu, Z. (2024). Chapter 2 - Fundamentals of neural networks. In Y. Chen, L. Li, W. Li, Q. Guo, Z. Du, & Z. Xu (Eds.), *AI Computing*

- Systems* (pp. 17-51). Morgan Kaufmann. <https://doi.org/https://doi.org/10.1016/B978-0-32-395399-3.00008-1>
- Conger, D., Gibbs, C. R., Uchikoshi, Y., & Winsler, A. (2019). New benefits of public-school pre-kindergarten programs: Early school stability, grade promotion, and exit from ELL services. *Early Childhood Research Quarterly, 48*, 26-36.
- Cook, K. D., & Coley, R. L. (2017). School transition practices and children's social and academic adjustment in kindergarten. *Journal of Educational Psychology, 109*(2), 166. <https://doi.org/10.1037/edu0000139>
- Couchenour, D., & Chrisman, J. K. (2016). *The SAGE encyclopedia of contemporary early childhood education*. Sage Publications.
- Dore, R., Justice, L., Mills, A. K., Narui, M., & Welch, K. (2021). Virtual kindergarten readiness programming for preschool-aged children: Feasibility, social validity, and preliminary impacts. *Early Education and Development, 32*(6), 903-922. <https://doi.org/10.1080/10409289.2021.1919041>
- Duke University Center for Child and Family Policy. (2017). *The current state of scientific knowledge on pre-kindergarten effects* (ED574393). ERIC. <http://files.eric.ed.gov/fulltext/ED574393.pdf>
- Duncan, G. J., & Magnuson, K. (2011). The nature and impact of early achievement skills, attention skills, and behavior problems. In G. J. Duncan and R. J. Murnane (eds.) *Whither opportunity: Rising inequality, schools, and children's life chances* (pp. 47-70). Russell Sage.
- Duncan, G. J., & Magnuson, K. (2013). Investing in preschool programs. *The Journal of Economic Perspectives, 27*(2), 109-133.

- Duncan, R. J., Schmitt, S. A., Burke, M., & McClelland, M. M. (2018). Combining a kindergarten readiness summer program with a self-regulation intervention improves school readiness. *Early Childhood Research Quarterly, 42*, 291-300.
<https://doi.org/https://doi.org/10.1016/j.ecresq.2017.10.012>
- Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D., & Schellinger, K. B. (2011). The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child Development, 82*(1), 405-432.
<https://doi.org/10.1111/j.1467-8624.2010.01564.x>
- Eckert, T., McIntyre, L., DiGennaro Reed, F., Arbolino, L., Ricci, L., & Begeny, J. (2008). Researching the transition to kindergarten for typically developing children: A literature review of current processes, practices, and programs. In (pp. 1-18).
- Eklund, K., Kilpatrick, K. D., Kilgus, S. P., Haider, A., & Eckert, T. (2018). A systematic review of state-level social-emotional learning standards: Implications for practice and research. *School Psychology Review, 47*(3), 316-327. <https://doi.org/10.17105/SPR-2017.0116.V47-3>
- Entwisle, D. R. (1995). The role of schools in sustaining early childhood program benefits. *The Future of Children, 5*(3), 133-144.
- Fabina, J., Hernandez, E., & McElrath, K. (2023). *Significant decline in preschool enrollment during COVID pandemic*. <https://www.census.gov/library/publications/2023/acs/acs-55.html>
- Franks, L. E. (2018). How does your experience compare? NAESP's 10-year study of the principalship reveals student mental health is a top concern for the nation's K-8 principals. *Principal, 98*(1), 42-45.

- Gao, X., Shen, J., & Krenn, H. Y. (2017). Using WWC sanctioned rigorous methods to develop comparison groups for evaluation. *Evaluation and program planning*, *65*, 148-155.
<https://doi.org/10.1016/j.evalprogplan.2017.08.007>
- Goldstein, N. E., Arnold, D. H., Rosenberg, J. L., Stowe, R. M., & Ortiz, C. (2001). Contagion of aggression in day care classrooms as a function of peer and teacher responses. *Journal of Educational Psychology*, *93*(4), 708-720.
- Green, B. L., Malsch, A. M., Kothari, B. H., Busse, J., & Brennan, E. (2012). An intervention to increase early childhood staff capacity for promoting children's social-emotional development in preschool settings. *Early Childhood Education Journal*, *40*, 123-133.
- Grossman, J., Laken, M., Stevens, J., Hughes-Joyner, F., Sholar, M., & Gormley, C. K. (2007). Use of psychiatric nurse practitioner students to provide services in rural school-based health clinics. *Journal of Child & Adolescent Psychiatric Nursing*, *20*(4), 234–242.
<https://doi-org.er.lib.k-state.edu/10.1111/j.1744-6171.2007.00120.x>
- Gulati S., Gulati, A., Israni, J., Squires, A., Singh, P., Madaan, G., & Kamila, R. M. (2023). Socio-cultural adaptation and validation of ages and stages questionnaire (ASQ 3) in Indian children aged 2 to 24 months. *Indian Pediatrics: Journal of the Indian Academy of Pediatrics*, *60*(11), 908–912.
- Harris, S. (2010). *Early intervention for poverty-stricken children: A study of preschoolers receiving jumpstart* (Publication No. 3528245) [Doctoral dissertation, Illinois State University]. ProQuest Dissertations & Theses Global.
- Heckman, J., Pinto, R., & Savelyev, P. (2013). Understanding the mechanisms through which an influential early childhood program boosted adult outcomes. *American Economic Review*, *103*(6), 2052-2086. <https://doi.org/http://dx.doi.org/10.1257/aer.103.6.2052>

- Heckman, J. J., & Masterov, D. V. (2007). The productivity argument for investing in young children. *Review of Agricultural Economics*, 29(3), 446-493.
- Heyder, A., van Hek, M., & Van Houtte, M. (2021). When gender stereotypes get male adolescents into trouble: A longitudinal study on gender conformity pressure as a predictor of school misconduct. *Sex Roles*, 84(1/2), 61–75. <https://doi-org.er.lib.k-state.edu/10.1007/s11199-020-01147-9>
- Hughes, C., & Cline, T. (2015). An evaluation of the preschool PATHS curriculum on the development of preschool children. *Educational Psychology in Practice*, 31(1), 73-86. <https://doi.org/10.1080/02667363.2014.988327>
- James, G., Witten, D., Hastie, T., Tibshirani, R., & Taylor, J. (2023). Linear regression. In G. James, D. Witten, T. Hastie, R. Tibshirani, & J. Taylor (Eds.), *An introduction to statistical learning: With applications in python* (pp. 69-134). Springer International Publishing. https://doi.org/10.1007/978-3-031-38747-0_3
- Johnson, N., Seaman, J., & Poulin, R. (2022). Defining different modes of learning: Resolving confusion and contention through consensus. *Online Learning*, 26(3), 91–110. <https://doi-org.er.lib.k-state.edu/10.24059/olj.v26i3.3565>
- Jones, D., Greenberg, M., & Crowley, M. (2015). *How children's social skills impact success in adulthood* (ED592871). ERIC. <http://files.eric.ed.gov/fulltext/ED592871.pdf>
- Kansas State Department of Education. (2022). *Board Vision for Kansas Education*. <https://www.ksde.org/Board/Kansas-State-Board-of-Education/Board-Goals-and-Outcomes>
- Khan, K. S., Justice, L. M., Welch, K., Goodway, J., Myrtil, M., Famelia, R., & Joy, E. (2017). Summer success: A comprehensive kindergarten readiness camp [White paper]. The

- Schoenbaum Family Center and Crane Center for Early Childhood Research and Policy.
<https://earlychildhood.ehe.osu.edu/files/2018/01/Summer-Successwhitepaper.pdf>
- Kansas State Department of Education. (2021). Navigating Change: Kansas' Guide to Learning and School Safety Operations. *Kansas State Department of Education*.
- Kansas Building Report Card*. Kansas Department of Education. (n.d.). Retrieved November 30, 2022 from
https://ksreportcard.ksde.org/assessment_results.aspx?org_no=State&rptType=3
- Karoly, L. A., & Bigelow, J. H. (2005). *The economics of investing in universal preschool education in California*.
https://www.rand.org/content/dam/rand/pubs/monographs/2005/RAND_MG349.pdf
- Karoly, L. A. (2016). The Economic Returns to Early Childhood Education [Article]. *Future of Children*, 26(2), 37-55. <https://doi.org/10.1353/foc.2016.0011>
- Kim, J., Murdock, T., & Choi, D. (2005). Investigation of parents' beliefs about readiness for kindergarten: An examination of National Household. Education Survey [Article].
Educational Research Quarterly, 29(2), 3-17.
- Kraft-Sayre, M. E., & Pianta, R. C. (2000). *Enhancing the Transition to Kindergarten: Linking Children, Families, & Schools* (ED479280). ERIC.
<http://files.eric.ed.gov/fulltext/ED479280.pdf>
- Lazarus, P. J., & Sulkowski, M. L. (2011). The emotional well-being of our nation's youth and the promise of social-emotional learning. *Communique*, 40(2), 16-17. <https://link-gale-com.er.lib.k-state.edu/apps/doc/A271596762/AONE?u=ksu&sid=bookmark-AONE&xid=ce1794d6>

- Lee, J. (2002). Racial and ethnic achievement gap trends: Reversing the progress toward equity? *Educational Researcher*, 31(1), 3-12.
- Lewin, K. M. (2020). Contingent reflections on coronavirus and priorities for educational planning and development. *Prospects*, 49(1/2), 17–24. <https://doi-org.er.lib.k-state.edu/10.1007/s11125-020-09480-3>
- Ladd, G. W., Birch, S. H., & Buhs, E. S. (1999). Children's social and scholastic lives in kindergarten: Related spheres of influence? *Child Development*, 70(6), 1373-1401.
- Ladd, G. W., & Burgess, K. B. (1999). Charting the relationship trajectories of aggressive, withdrawn, and aggressive/withdrawn children during early grade school. *Child Development*, 70(4), 910-930. <https://doi.org/10.1111/1467-8624.00066>
- Lasser, J., & Fite, K. (2011). Universal preschool's promise: Success in early childhood and beyond. *Early Childhood Education Journal*, 39(3), 169-174. <https://doi.org/10.1007/s10643-011-0449-x>
- Lazar, I., & Darlington, R. (1982). Lasting effects of early education: A report from the consortium for longitudinal studies. *Monographs of the Society for Research in Child Development*, 47, 1).
- LoCasale-Crouch, J., Mashburn, A. J., Downer, J. T., & Pianta, R. C. (2008). Pre-kindergarten teachers' use of transition practices and children's adjustment to kindergarten. *Early Childhood Research Quarterly*, 23, 124-140.
- Macy, M., Marks, K., & Towle, A. (2014). Missed, misused, or mismanaged: Improving early detection systems to optimize child outcomes. *Topics in Early Childhood Special Education*, 34(2), 94-106. <https://doi.org/10.1177/0271121414525997>

- Magnuson, K. A., Ruhm, C., & Waldfogel, J. (2007). Does prekindergarten improve school preparation and performance? *Economics of Education Review*, 26(1), 33–51.
<https://doi.org/10.1016/j.econedurev.2005.09.008>
- Manship, K., Quick, H., Ogut, B., Holod, A., Brodziak de los Reyes, I., & Anthony, J. (2017). *The impact of transitional kindergarten on California's students* (ED609085). ERIC.
<http://files.eric.ed.gov/fulltext/ED609085.pdf>
- Maslow, A. H. (1943). A theory of human motivation. *Psychological Review*, 50(4), 370-396.
<https://doi.org/https://doi.org/10.1037/h0054346>
- McClelland, M. M., Acock, A. C., & Morrison, F. J. (2006). The impact of kindergarten learning-related skills on academic trajectories at the end of elementary school. *Early Childhood Research Quarterly*, 21(4), 471-491. <https://doi.org//dx.doi.org.er.lib.k-state.edu/10.1016/j.ecresq.2006.09.003>
- McDonald-Augustine, N., Tien, W., Cremer, N., Austin, B., Custer, K., Gannaway, B., . . . Toews, J. (2023). *Social-emotional character development standards*.
[https://www.ksde.org/Portals/0/CSAS/Content%20Area%20\(M-Z\)/School%20Counseling/Soc_Emot_Char_Dev/Kansas%20SECD%20Standards.pdf?ver=2024-02-09-140117-143](https://www.ksde.org/Portals/0/CSAS/Content%20Area%20(M-Z)/School%20Counseling/Soc_Emot_Char_Dev/Kansas%20SECD%20Standards.pdf?ver=2024-02-09-140117-143)
- McIntosh, K., Flannery, K. B., Sugai, G., Braun, D. H., & Cochrane, K. L. (2008). Relationships between academics and problem behavior in the transition from middle school to high school. *Journal of Positive Behavior Interventions*, 10(4), 243-255.
<https://doi.org/10.1177/1098300708318961>
- Mills, C., Stephan, S. H., Moore, E., Weist, M. D., Daly, B. P., & Edwards, M. (2006). The president's new freedom commission: Capitalizing on opportunities to advance school-

- based mental health services. *Clinical Child & Family Psychology Review*, 9(3/4), 149–161. <https://doi-org.er.lib.k-state.edu/10.1007/s10567-006-0003-3>
- Moore, S. A., Dowdy, E., Hinton, T., DiStefano, C., & Greer, F. W. (2022). Moving toward implementation of universal mental health screening by examining attitudes toward school-based practices. *Behavioral Disorders*, 47(3), 166–175. <https://doi-org.er.lib.k-state.edu/10.1177/0198742920982591>
- Morgan-D'atrio, C., Northup, J., Lafleur, L., & Spera, S. (1996). Toward prescriptive alternatives to suspensions: A preliminary evaluation. *Behavioral Disorders*, 21(2), 190-200. <https://doi-org.er.lib.k-state.edu/10.1177/019874299602100206>
- Mulligan, G. M., Hastedt, S., & McCarroll, J. C. (2012). *First-time kindergartners in 2010-11: First findings from the kindergarten rounds of the early childhood longitudinal study, kindergarten class of 2010-11*. <https://nces.ed.gov/pubs2012/2012049.pdf>
- National Research Council Institute of Medicine. (2000) *From Neurons to Neighborhoods: The Science of Early Childhood Development*. National Academies Press.
- Nold, J., De Jong, D., Moran, J., Robinson, D., & Aderhold, F. (2021). Early childhood education: Academic and behavioral benefits of prekindergarten educational programming. *Sage Open*, 11(2), 21582440211010154. <https://doi.org/10.1177/21582440211010154>
- Nygaard, M. A., Ormiston, H. E., Heck, O. C., Apgar, S., & Wood, M. (2023). Educator perspectives on mental health supports at the primary level. *Early Childhood Education Journal*, 51(5), 851–861. <https://doi-org.er.lib.k-state.edu/10.1007/s10643-022-01346-x>
- O'Connell, C. L. (2017). *Examining the influence of a school-wide positive behavior intervention and support framework with a mindfulness component on student discipline and school*

- climate* (Publication Number 10800179) [Doctoral dissertation, University of Massachusetts Lowell]. ProQuest One Academic.
- Pas, E. T., Bradshaw, C. P., & Mitchell, M. M. (2011). Examining the validity of office discipline referrals as an indicator of student behavior problems. *Psychology in the Schools, 48*(6), 541-555. <https://doi.org/https://doi.org/10.1002/pits.20577>
- Parlakian, R. (2003). Promoting mental health in childcare settings: Caring for the whole child. *Zero to Three, 23*(4), 39-45.
- Pianta, R. C., Cox, M. J., Taylor, L., & Early, D. (1999). Kindergarten teachers' practices related to the transition to school: Results of a national survey. *Elementary School Journal, 100*(1), 71-87.
- Poulou, M. S., Bassett, H. H., & Denham, S. A. (2018). Teachers' perceptions of emotional intelligence and social-emotional learning: Students' emotional and behavioral difficulties in U.S. and Greek preschool classrooms. *Journal of Research in Childhood Education, 32*(3), 363-378. <https://doi.org/10.1080/02568543.2018.1464980>
- Ramey, C. T., & Ramey, S. L. (2004). Early learning and school readiness: Can early intervention make a difference? *Merrill-Palmer Quarterly: Journal of Developmental Psychology, 50*(4), 471-492.
- Rathbun, A. H., & Hausken, E. G. (2001). *How are transition-to-kindergarten activities associated with parent involvement during kindergarten?* (ED452951). ERIC. <http://files.eric.ed.gov/fulltext/ED452951.pdf>
- Reynolds, A. J., Temple, J. A., & White, B. A. B. (2011). Age 26 cost-benefit analysis of the Child-Parent Center Early Education Program. *Child Development, 82*(1), 379–404. <https://doi-org.er.lib.k-state.edu/10.1111/j.1467-8624.2010.01563.x>

- Richardson, B. A., Reynolds, A. J., Temple, J. A., & Smerillo, N. E. (2017). School readiness in the Midwest Child-Parent Center Expansion: A propensity score analysis of year 1 impacts. *Children and Youth Services Review*, 79, 620-630.
<https://doi.org/10.1016/j.childyouth.2017.06.042>
- Rimm-Kaufman, S. E., Pianta, R. C., & Cox, M. J. (2000). Teachers' judgments of problems in the transition to kindergarten. *Early Childhood Research Quarterly*, 15(2), 147-167.
[https://doi.org/10.1016/S0885-2006\(00\)00049-1](https://doi.org/10.1016/S0885-2006(00)00049-1)
- Rous, B., Hallam, R., McCormick, K., & Cox, M. (2010). Practices that support the transition to public preschool programs: Results from a national survey. *Early Childhood Research Quarterly*, 25(1), 17-33. <https://doi.org/10.1016/j.ecresq.2009.09.001>
- Schulting, A. B., Malone, P. S., & Dodge, K. A. (2005). The effect of school-based kindergarten transition policies and practices on child academic outcomes. *Developmental Psychology*, 41(6), 860-872.
- Scott, J. (2020). Redesign resiliency: Kansas secondary redesign schools navigating COVID-19. *Educational Considerations*, 46(2), 1-6. <https://doi.org/10.4148/0146-9282.2229>
- Tamis-LeMonda, C. S., Bornstein, M. H., & Baumwell, L. (2001). Maternal responsiveness and children's achievement of language milestones. *Child Development*, 72(3), 748-768.
<https://doi.org/10.1111/1467-8624.00313>
- Thompson, O. (2018). Head start's long-run impact: Evidence from the program's introduction. *Journal of Human Resources*, 53(4), 1100-1139. <https://doi.org/10.3368/jhr.53.4.0216-7735R1>

- Tynan, J. M. (2016). *Using pre-kindergarten data to predict students' kindergarten performance* (Publication No, 10127159) [Master's thesis, The University of North Carolina at Charlotte]. ProQuest One Academic.
- US Department of Health and Human Services, US Department of Education, & US Department of Justice. (2000). Report of the surgeon general's conference on children's mental health: A national action agenda. <https://www.ncbi.nlm.nih.gov/books/NBK44233/>
- Varshney, N., Lee, S., Temple, J. A., & Reynolds, A. J. (2020). Does early childhood education enhance parental school involvement in second grade?: Evidence from midwest child-parent center program. *Children and Youth Services Review, 117*, 105317. <https://doi.org/https://doi.org/10.1016/j.chilyouth.2020.105317>
- Varshney, N., Temple, J. A., & Reynolds, A. J. (2022). Early education and adult health: Age 37 impacts and economic benefits of the child-parent center preschool program. *Journal of Benefit-Cost Analysis, 13*(1), 57–90. doi:10.1017/bca.2022.4
- Vygotsky, L. S. (1978). *Mind in Society: Development of Higher Psychological Processes* (M. Cole, V. Jolm-Steiner, S. Scribner, & E. Souberman, Eds.). Harvard University Press. <https://doi.org/10.2307/j.ctvjf9vz4>
- Wechsler, M., Kirp, D., Tinubu Ali, T., Gardner, M., Maier, A., Melnick, H., & Shields, P. M. (2016). The road to high-quality early learning: Lessons from the states. https://learningpolicyinstitute.org/product/brief-road-high-quality-early-learning-lessons-states?gad_source=1&gclid=CjwKCAjw3624BhBAEiwAkxgTOkg4x-FQsQW_b_WcRgaPA8pt0zaia_JnjPWvtb3Or3x4718hxbc2zBoCQrIQAvD_BwE
- Welchons, L. W., & McIntyre, L. L. (2017). The transition to kindergarten: Predicting socio-behavioral outcomes for children with and without disabilities. *Early Childhood*

Education Journal, 45(1), 83-94. <https://doi.org//dx.doi.org.er.lib.k-state.edu/10.1007/s10643-015-0757-7>

Winsler, A., Tran, H., Hartman, S. C., Madigan, A. L., Manfra, L., & Bleiker, C. (2008). School readiness gains made by ethnically diverse children in poverty attending center-based childcare and public-school pre-kindergarten programs. *Early Childhood Research Quarterly*, 23, 314-330.

Wymbs, F., Doctoroff, G. L., & Chacko, A. (2023). Using conjoint analysis to inform engagement in head start parent programs among families who are Spanish-speaking. *Journal of Child & Family Studies*, 32(8), 2294-2308. <https://doi.org/10.1007/s10826-022-02493-w>

Zeff, S. (2017, September 28). *New Kansas school funding formula removes barriers to all-Day kindergarten*. KCUR. <https://www.kcur.org/education/2017-09-14/new-kansas-school-funding-formula-removes-barriers-to-all-day-kindergarten>

Zinsser, K. M., Shewark, E. A., Denham, S. A., & Curby, T. W. (2014). A mixed-method examination of preschool teacher beliefs about social-emotional learning and relations to observed emotional support. *Infant & Child Development*, 23(5), 471-493. <https://doi.org/10.1002/icd.1843>

Appendix A - Early Learning Program Enrollment 2016 and 2017

2016		2017	
School	Number of Students	School	Number of Students
1	30	1	27
2	18	2	11
3	11	3	12
4	16	4	10
5	7	5	27
6	21	6	19
7	31	7	11
8	32	8	9
9	19	9	24
10	13	10	26
11	12	11	17
12	7	12	27
13	9	13	17
Total	226	14	8
		15	13
		16	11
		17	7
		18	15
		19	7
		Total	298

Appendix B - Early Learning Program 2017 NWEA Fall to Winter Growth in Math and Reading

2017	Number of Students	Percentage of Students who Met or Exceed Expected Growth
Math		
Early Learning Program	157	56.1%
Non- Early Learning Program	417	51.1%
Reading		
Early Learning Program	157	59.9%
Non-Early Learning Program	415	55.2%

Appendix C - Early Learning Program 2017 Demographics

Race/Ethnicity	Early Learning Program	District
White	48%	66%
Hispanic	33%	17%
Black	10%	9%
Multi-racial	6%	5%
Asian	3%	2%
Federal Lunch Program Qualifying Students	49%	33%
Federal Lunch Program Non- Qualifying Students	51%	67%

Appendix D - Early Learning Program 2016 and 2017 DIBELS Results

All Participants - All District Schools	Fall 2016
Early Learning Program	33.7%
Non-Early Learning Program	38.4%
	Winter 2017
Early Learning Program	139.7%
Non-Early Learning Program	158.5%
Free/Reduced Lunch	Fall 2016
Early Learning Program	31%
Non-Early Learning Program	25%
	Winter 2017
Early Learning Program	137.8%
Non-Early Learning Program	133.8%
All Participants - Early Learning Program Sites Only	Fall 2016
Early Learning Program	33.5%
Non-Early Learning Program	32.2%
	Winter 2017
Early Learning Program	139.5%
Non-Early Learning Program	143.5%
Free/Reduced Lunch	Fall 2016
Early Learning Program	30.5%
Non-Early Learning Program	23.8%
	Winter 2017
Early Learning Program	137.3%
Non-Early Learning Program	130.3%