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Perceptions of Early Childhood System Partners on Career Pathways

Melissa Larson Busby
Walden University

Walden University

College of Education and Human Sciences

This is to certify that the doctoral study by

Melissa Larson Busby

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Review Committee
Dr. Donald Yarosz, Committee Chairperson, Education Faculty
Dr. Andrew Alexson, Committee Member, Education Faculty

Chief Academic Officer and Provost
Sue Subocz, Ph.D.

Walden University
2024

Abstract

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MA, Western New Mexico University, 2003

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Dissertation Submitted in Partial Fulfillment

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Abstract

Researchers have found high-quality early childhood teachers are crucial to high-quality programs for young children. Despite this, there is a significant need for more highly qualified teachers in a southwestern state. The purpose of the qualitative study was to explore the perceptions of early childhood education (ECE) systems partners in one southwestern state regarding the current systems, structures, and policies related to career pathways through the high school, community college, and university levels. The conceptual framework for this study was based on von Bertalanffy's general systems theory and systems thinkers such as Senge, who detail the complex interactions between systems components. For this basic qualitative design, semistructured interviews were conducted with a purposive sample of 12 ECE systems partners from high school, community college, university, and state systems levels. Data were coded with a priori, open, and axial codes and then thematically analyzed, resulting four themes relating to career pathways including state policies, college structures, resources and supports, and perception of the profession, and two themes relating to degree completion and the shortage of qualitied early childhood teachers including the structure of the pathways and factors related to degree completion. The findings describe a need for streamlined policies, efficient degree pathways, and increased resources and supports for teacher candidates. The findings could lead to positive social change by recommending changes for more accessible and efficient career pathways to meet the needs of potential ECE teacher candidates in order to support a diverse and qualified early childhood workforce.

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Dedication

For my boys: Bryce who is and has always been my North Star, Andrew who is the music and *pride* of my life, and to Ethan Joe who is my heart.

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Completing this dissertation has been a long journey filled with challenges and growth and would not have been possible without the support of the many people who have encouraged me along the way. Special thanks to Dr. Yarosz, who has been a mentor, guide, and sounding board throughout this process and to Dr. Alexson, who has shared his faith in me and has been a source of wisdom and encouragement.

With gratitude to the faculty, mentors, and colleagues who have helped me reach this final milestone in my academic career, especially my *mother dear*, who taught me to trust in my ability to lead and never let me back down from a challenge.

A special note of gratitude to my mom, who has always loved me the most, and to my dad, who taught me the value of hard work and has given me the best blessings in life as his baby girl. To my family and friends who are family, I appreciate and love you all.

Finally, to the people who have enhanced and supported my journey, walked the wire with me, and consistently reminded me that *all's well that ends wells*—I love you so much and would not have made it without you.

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Chapter 1: Introduction to the Study

There has been an increase in teacher shortages in many states, and data collected on this issue highlights the likelihood that this trend will continue (Carver-Thomas & Darling-Hammond, 2019). But highly qualified teachers are necessary in shaping the education and development of young children (Donoghue et al., 2017). In states with high levels of teacher shortages, it is imperative that all avenues are explored to increase the supply of high-quality teachers (McLean et al., 2023). The accessibility of higher education degree pathways and challenges in the articulation of credit and credit for prior learning are frequently cited as barriers to building a highly qualified early childhood workforce, particularly for educators currently working in the field (Cheng et al., 2018; Kaplan, 2018). These barriers are acute for the Early Childhood Education (ECE) workforce plagued with low compensation, particularly for women of color earning poverty-level wages (National Association for the Education of Young Children [NAEYC], 2020c).

This study was conducted to investigate the status of early childhood degree pathways for current and future educators in a southwestern state and to investigate how the systems, structures, and policies that influence career pathways could be improved. I examined the perceptions of early childhood systems partners who influence the creation of early childhood career pathways from high school to the baccalaureate level. Investigating current perceptions about degree pathways is one way to determine how access could be increased and improved (Cheng et al., 2018). This investigation could create positive social change for the southwestern state's early childhood workforce by

identifying ways to increase access to degree pathways and make the pathways more efficient and relevant to the needs of local communities.

In this chapter, the background of the study is presented with a summary of why this study is needed. The problem is discussed, followed by the purpose of the study. Then the research questions are articulated, and the conceptual framework that underpins the study is presented. Next, the nature of the study is included, along with an overview of the methodology. Key concepts are defined and described along with the assumptions, scope, delimitations, and limitations. Finally, a section that describes the significance of this study is included, followed by a concluding summary.

Background

In 2015, the Institute of Medicine (IOM) and National Research Council (NRC) released a seminal study and highly influential policy report, *Transforming the Workforce for Children Birth Through Age 8: A Unifying Foundation*, which recommended that all early childhood educators hold baccalaureate degrees. Additional studies have provided information on the overall state of the early education workforce, its needs, strengths, concerns, and complexities (Cheng et al., 2018; McLean et al., 2023), which could help improve the systems, structures, and policies that influence early childhood degree pathways. For instance, literature on this subject describes one approach to address teacher shortages is to improve local pipelines to the profession by developing strong partnerships with local teacher preparation programs (Gardner et al., 2019; Lees & Kennedy, 2017; Zinsser et al., 2019) and to offer models and information on community-based partnerships for teacher preparation. These models describe the need for mutually

beneficial partnerships with community stakeholders that are culturally responsive, iterative, and promote high-quality practices that meet the needs of children's programs and schools, higher education institutions, and students.

The *Early Learning Career Pathways Initiative*, supported by the U.S. Departments of Education and Health and Human Services (Limardo et al., 2016), examined the current state of career pathways in the early learning field designed to meet industry and employment needs and advance the needs of low-income, low-skilled adults in or entering the field. The report defined career pathways as "comprehensive education and training systems that provide a clear sequence of coursework and training credentials aligned with employer and industry needs" (Limardo et al., 2016, p. 3). Early childhood professional preparation programs need to be efficient and relevant, certificates and degrees need to be portable and stackable, and both students' and employers' needs should be met (Xu et al., 2018).

Select articles on early childhood degree completion outline the best practices for creating higher education teacher preparation programs (Harrison & Heinrich-Joerdens, 2017; Zinsser et al., 2019). These articles describe the need for high-quality teacher preparation programs that focus on innovative practices and the knowledge, skills, dispositions, and field experiences students need to succeed in the workforce. Researchers have also discussed the characteristics of relational dynamics in teacher preparation programs (Douglass, 2019). High-quality relationships that include the dynamics of mutual respect and caring, believing in educators, flexibility and responsiveness, and mentoring and role modeling positively influence educators'

experiences in higher education programs. In addition to the structure and academic content of degree programs, the research about the relational aspects of teacher preparation should also inform policy and practice related to career pathways.

Additional studies have examined the barriers teachers of color face to entering and staying in the teaching profession. They indicate the importance of building inclusive pathways that provide equity and access to diverse student populations (Carver-Thomas, 2018). This research relates to the community population for this study as the population of the southwestern state has a higher portion of Hispanics and Native Americans than the nation as whole and many colleges in the state have been designated as Hispanic serving institutions (Milem et al., 2016). Many early childhood educators in this southwestern state are Latina women and often experience barriers to accessing higher education programs (Gist et al., 2019; Zinsser et al., 2019). There is a need for higher education systems to remove unnecessary barriers to early childhood degree completion (Gist et al., 2019; Zinsser et al., 2019). This study is needed to address possible gaps in policy and practice around the structure and accessibility of early childhood career pathways from high school through baccalaureate degree completion. The importance of early childhood educator preparation and the best practices for creating early childhood systems, structures, and policies to support degree completion are presented in the literature review in Chapter 2.

Problem Statement

The teacher shortage across the United States has existed for several years. Recent research confirms this ongoing problem and indicated an increase in teacher shortages

and downward enrollment trends in educator preparation programs nationwide (Carver-Thomas & Darling-Hammond, 2019; Podolsky et al., 2016). In 2018, the southwestern state in this study was named among the least attractive states for teacher recruitment, and studies have reported that the teacher shortage is at crisis levels (Arizona Department of Education, 2020; Education Resource Strategies, 2018; Educator Recruitment & Retention Task Force, 2015; Hunting et al., 2017). A substantiating national report, *A Coming Crisis in Education* by the Learning Policy Institute, indicated the southwestern state's future points to continued teacher shortages due to the high percentage of districts with unfilled teaching positions, a high number of full-time teachers working with substitute credentials, high turnover rates, and a high percentage of the workforce ready to retire (Sutcher et al., 2016; McLean et al., 2021).

To compound concerns with the downward enrollment trends in teacher preparation programs, empirical evidence indicated that formal education and professional preparation of early childhood educators is a crucial element to high-quality programs for children and families (Huss-Keeler, 2020; IOM & NRC, 2015; Manning et al., 2017). Not every child in this southwestern state has access to a highly-qualified teacher due to too few qualified teachers entering the workforce, high attrition rates, and recent policy changes, including the deregulation of teacher certification which allows multiple alternative and emergency certification practices (Cano, 2017; Hunting et al., 2017). According to a recent survey of over 200 school districts conducted by the southwestern state's school personnel administrator's association, 52% of teacher vacancies were filled by teachers who lack the qualifications needed for the standard

teaching certificate, and 23% of open teacher positions remained vacant (ASPAA, 2018). There is a need to study the perceptions of early childhood systems personnel on the effectiveness of the systems, structures, and policies related to early childhood career pathways. Information gathered from this examination addresses gaps in professional practices around early childhood career pathways in the state (Cheng et al., 2018; Huss-Keeler, 2020; Lees & Kennedy, 2017).

Purpose of the Study

This qualitative study was conducted to examine ECE career pathways by investigating the perceptions of educational personnel in one southwestern state regarding the current systems, structures, and policies related to career pathways through the high school, community college, and university levels. The study investigated perceptions of early childhood system partners to better understand how equity and access, professional milestones and curricula, coursework and field experiences, community partnerships, and transfer pathways contribute to future educators obtaining the knowledge, skills, dispositions, and credentials necessary to efficiently enter the early childhood teaching workforce (McLean et al. 2023; Xu et al., 2018). Through an exploration of the literature and current data on this subject, and through interviews with key informants at every educational level, the evidence collected adds to the current body of literature on early childhood educator preparation. It also increases the understanding of early childhood systems, structures, and policies related to career pathways that could support positive social change for the early education workforce.

Research Questions

The central research question for this study was "What are the perceptions of early childhood systems partners who influence the structures and policies that affect the creation of early childhood degree pathways from high school to the baccalaureate level on ways career pathways could be improved?" From this question, additional qualitative research questions were developed:

1. What are the perceptions of early childhood systems personnel at the high school, community college, university, and state systems levels on the effectiveness of the systems, structures, and policies that are related to career pathways for early childhood educators?
2. What are the perceptions of early childhood systems personnel at the high school, community college, university, and state systems levels on ways career pathways are related to degree completion and shortages of qualified early childhood educators?

Conceptual Framework for the Study

The research questions for this qualitative study were designed to investigate the systems, structures, and policies that influence the development of early childhood career pathways and how these systems engage early childhood educators. Classic systems theories, including von Bertalanffy's (1969) general systems theory, detail the complex interactions between various systems components and how the distinct system components and the whole of the parts impact individuals. Figure 1 maps the basic structure of the early childhood professional development system and the structures, organizations, and

policies that influence pathways to early childhood degree completion.

Figure 1

Early Childhood Professional Development System

Systems thinkers, including Senge (2000), describe how systems thinking could help organize educational institutions into learning systems responsive to feedback from stakeholders. Systems theorists assert that effective systems are self-regulating and evolve and self-correct through feedback loops. The research questions for this study gathered feedback from early childhood systems personnel regarding existing career pathways and how the current systems, structures, and policies are related to degree completion and teacher shortages for current and future early childhood educators.

Nature of the Study

The nature of this study is a qualitative study with interviews. The critical concepts investigated are the systems, structures, and policies related to early childhood career pathways. The qualitative approach is best suited for exploring a problem and

seeking to gather feedback about its fundamental concepts of a problem. This approach is also best when seeking to develop an understanding of participants' experiences with the phenomenon of the study (Merriam & Tisdell, 2016).

The study consists of a purposive sample of 12 educational leaders recruited from a statewide population of instructional leaders, faculty members, teachers, advisory board members, and specialists in state agencies who participated in open-ended interviews. This sample size was appropriate for this study as qualitative samples must be large enough to confirm that the bulk of perceptions is discovered but not too large to be repetitive and redundant (Ravitch & Carl, 2016). Data were collected on the perceptions of educational leaders regarding early childhood career pathways and related systems that contribute to the preparation and education of the early childhood workforce. The open-ended interviews were completed with ECE stakeholders at the high school, community college, university, and state systems levels. Data were then analyzed to determine common perceptions and themes around ways early childhood career pathways could be improved.

Definitions

The following are definitions of terms used in this study. Definitions are only included for terms that support the particular context of this study or are used other than a standard dictionary definition.

Career pathways: A series of connected education and training programs and credentials that meet the needs of adult learners, employers, and the workforce. Career pathways can include professional development, college coursework, state and national

credentials, and degrees (Limardo et al., 2016).

Certified teachers: A person who has completed the requirements set forth by a governing agency allowing them to be employed in a teaching discipline. In this study's southwestern state, individuals who choose this early childhood career pathway are certified teachers.

Degree pathway: A degree pathway is a series of coursework, learning opportunities, and field experiences at an institution of higher education that leads to an academic degree. This study focuses on early childhood degree pathways in one southwestern state.

Early childhood system: An early childhood system includes a comprehensive and complex array of regulatory agencies, policies, professional development training, and education designed to prepare and support a diverse ECE workforce (NAEYC, 2016).

Structures: For this study, structures refer to the design and organization of coursework and field experiences in degree pathways developed for early childhood educators at the high school, community college, and university levels.

Transfer pathway: For this study, transfer was defined as the process of moving between a public community college and a state-funded university. The transfer pathway is a series of coursework designed to help students progress from a community college to a university with minimal credit loss.

Uncertified teachers: Uncertified teachers have not met state certification requirements in their teaching field and include those teaching while still finishing their preparation or teaching with an emergency (provisional or temporary) credential

(Podolsky et al., 2016). For this study, uncertified teachers also refer to individuals who choose early childhood career pathways that do not require teacher certification (e.g., Head Start, Early Head Start, community preschool).

Assumptions

The key concepts investigated in this qualitative study are the systems, structures, and policies related to early childhood career pathways. Therefore, it was assumed that systems partners interviewed for this study are aware of the systems, structures, and policies that impact early childhood career pathways and degree completion. It was also assumed the participants were aware there was an early childhood workforce shortage in the local community and at the state-level, and that the structure of degree pathways is a potential barrier to degree completion and contributes to ongoing teacher shortages. Finally, it was assumed that the participants interpreted the questions accurately and answered the interview questions openly, sincerely, and truthfully.

Scope and Delimitations

The scope of this qualitative study was to explore the perceptions of 12 participants who were educational leaders at the high school, community college, and university levels in a southwestern state. Other participants included systems partners who influence early childhood policies and programs at the state systems level. I used purposive sampling to select 12 participants with specific knowledge of the systems, structures, and policies that impact the ability of future educators to obtain the knowledge, skills, dispositions, and credentials to enter the early childhood workforce.

Delimitations are boundaries of the study determined by the researcher (Creswell,

2015). The choice to interview high school and educational leaders in only one state was a delimitation. Additionally, the choice to only interview systems and policy leaders who specifically know early childhood degree pathways in the state was also a delimitation. These delimitations were created to understand better how equity and access, professional milestones and curricula, coursework and field experiences, community partnerships, and transfer pathways contribute to the development of the early childhood workforce (McLean et al. 2023; Xu et al., 2018).

Limitations

Limitations of the study include the scope and transferability of the data. The study was limited to 12 early childhood stakeholders at the high school, community college, university, and state systems levels. Due to the size and intentional nature of this sample, the transferability of the results may be limited. The primary method of data collection used was semistructured interviews, and the interview protocol was constructed by me and was reviewed by peers who are subject matter experts but was not piloted before use.

I believe that the structures and policies related to ECE career pathways could be improved. While it would be difficult to eliminate all my opinions and biases, I intentionally minimized bias throughout the study. I did this by following the structured interview protocol and using open-ended questions. Personal bias was mitigated in the data analysis process by using the prescribed thematic analysis protocol. Being reflective and conscious of my opinions and being willing to have those opinions challenged and changed by the participants helped eliminate bias when writing conclusions from the

study. Through these efforts, bias was limited but not eliminated (Merriam & Tisdell, 2016). The stakeholders interviewed also had their own perceptions and experiences as former students or current educators. Those experiences as leaders and supervisors may have biased their responses to the interview questions.

Significance

There is a need to study the systems, structures, and policies related to career pathways that lead to early childhood degree completion (Huss-Keeler, 2020; Kaplan, 2018; Xu et al., 2018). In 2018, the legislatively created governing board (Early Childhood Board) that oversees early childhood initiatives in the state identified a strategic goal of implementing an aligned, comprehensive professional development system to grow the early childhood workforce and support and retain early childhood educators. The Early Childhood Board planned to measure the success of that goal by the number of aligned career pathways that support the movement from high school into community college and through completing a bachelor's degree (First Things First, 2018).

The disconnect between associate degree completion and transfer to baccalaureate degree programs is one system structure that could be explored as an avenue to increase the number of qualified educators in early childhood classrooms (First Things First, 2018). Data collected by the southwestern state in 2015-2016 through 2020-2021 show that 49.6% of the total early childhood graduates from all three state-funded universities were transfer students. However, in 2020-2021, only 113 early childhood baccalaureate degrees were awarded to transfer students enrolled in the three state universities. Twenty

community colleges in the state offer ECE associate degrees, and there are far over 113 associate degree graduates each year (AZTransfer, 2021). Increasing the percentage of associate degree completers who transfer into baccalaureate programs could also increase the number of qualified educators, especially those already working in classrooms using emergency or alternative certification options. The results of this study will recommend changes to systems, structures, policy and professional practice to early childhood systems personnel who influence early childhood degree pathways. These changes in policy and practice can lead to positive social change by helping make career pathways from high school through degree completion more relevant to the needs of local communities and more accessible and efficient for the diverse early childhood workforce.

Summary

This chapter described the problem and rationale of the study, which was that even though studies show there is a strong association between high-quality programs for young children and highly-qualified personnel (Huss-Keeler, 2020; Manning et al., 2019), not every child in the southwestern state has access to a highly-qualified educator (ASPAA, 2018). This qualitative study aimed to examine how systems, structures, and policies related to ECE career pathways in the state might be improved.

Chapter 2 reviews the policies and structures of early childhood career pathways and the current research, policy reports, and seminal literature relevant to this study. The literature review includes both qualitative and quantitative studies that helped identify and describe the systems, structures, and policies related to early childhood degree pathways. In Chapter 3 I describe the research design of the study, and Chapter 4

includes the data and data analysis. Chapter 5 presents a discussion of the results and implications of this study.

Chapter 2: Literature Review

Empirical evidence indicated that the formal education and professional preparation of early childhood educators is a crucial element to high-quality programs for children and families (Huss-Keeler, 2020; IOM & NRC, 2015; Limardo et al., 2016; Manning et al., 2017; Pianta et al., 2016). However, according to recent reports, not every child in the study's southwestern state has access to a highly qualified teacher (Cano, 2017; Hunting et al., 2017), which is the problem this study addresses. The southwestern state's early childhood system partners have a shared goal of implementing an aligned, comprehensive professional development system to grow the early childhood workforce and support and retain early childhood educators (First Things First, 2018). This study was conducted to investigate the systems, structures, and policies related to ECE career pathways and how these pathways might be improved.

This chapter reviews the current literature that supports the need for this study and identifies gaps in the research. After an explanation of the conceptual framework, the chapter begins with a review of the literature regarding the role teachers play in quality programs for young children. Next is a review of the best practices and innovative strategies in early childhood teacher preparation and the knowledge, skills, and dispositions required of early childhood educators. Then there is an overview of the components and complexities of early childhood degree completion pathways. After that, there is a review of the dynamics of the early childhood system and the related structures and policies that influence the development of early childhood career pathways. This chapter includes current research around teacher shortage, ways to increase diversity and

equity within the early education workforce, and a review of current policy recommendations to support the early childhood workforce in accessing pathways to early childhood degree completion.

Literature Search Strategy

Sources and materials for this literature review were found using the Walden University Library, Google Scholar, and other educational and multidisciplinary scholarly databases, including Academic Search Premiere, ProQuest, ERIC, Education Research Complete, Education from SAGE, and Taylor and Francis Online. Various keywords and search terms were used to locate articles related to this topic. Examples of search terms include *early childhood education degree programs, early childhood degree pathways, early childhood dual certification pathways, early childhood education policies, teacher shortage in early childhood, early childhood education community college students, early childhood degree completion,* and *grow your own teacher pathways*. Much of the current literature on this topic was found in government documents and policy reports, so another search strategy was to examine the reference lists of each relevant article and report to find additional sources. Most studies included in this literature review were published within the last 7 years (2016-2023).

Conceptual Framework/Theoretical Foundation

The research questions for this qualitative study were designed to investigate the systems, structures, and policies that influence the development of early childhood career pathways and how these systems engage early childhood educators. Thus, classic systems theories, including von Bertalanffy's (1969) general systems theory, was chosen for the

framework. Systems theories detail the complex interactions between various systems components and how the distinct system components and the whole of the parts impact individuals. Von Bertalanffy theorized that complex systems influence nearly every discipline. The fields of classical, modern, and quantum physics, mathematics, and biology evolved around exploring systems with interrelated parts. Therefore, von Bertalanffy (1969) asserted

> It is necessary to study not only parts and processes in isolation, but also to solve the decisive problems found in the organization and order unifying them, resulting from dynamic interaction of parts, and making the behavior of parts different when studied in isolation or within the whole. (p. 31)

General systems theory and the interrelated nature of components within systems also apply to psychology, behavioral sciences, economics, social sciences, and education. Researchers can use an in-depth study of interrelated processes to study and improve the system.

Other systems thinkers, including Senge (2000), describe how systems thinking can help organize educational institutions into learning systems responsive to feedback from stakeholders. Systems theorists assert that effective systems self-regulate, evolve, and self-correct through feedback loops (Senge, 2006). The early childhood professional development system is a complex, disjointed, and somewhat inefficient system of regulatory policies, professional training, and structured career pathways that include workforce credentials, certifications, and associate and bachelor's degrees (NAEYC, 2020c). The complexity and inconsistencies of the system leads to vast differences in the

professional preparation and training of the workforce that disproportionately affect people of color, non-traditional working students, and first-generation students. The current system structures perpetuate "systemic inequalities and barriers to access and attainment at the bachelor's and associate degree levels" (NAEYC, 2020c, p. 1). Therefore, efforts to restructure the early childhood professional development system must support the creation of a well-prepared, well-compensated, diverse workforce of professionals who reflect the families and children they serve (NAEYC, 2020c).

Literature Review Related to Key Concepts

Quality Teachers = Quality Programs

Empirical evidence indicated that formal education and professional preparation for early childhood educators are crucial to high-quality programs for children and families (Huss-Keeler, 2020; IOM & NRC, 2015; Manning et al., 2017). A study with data from 48 studies and 82 individual data samples from several countries showed a statistically significant positive correlation between higher teacher qualifications and higher quality in ECE and care programs (Manning et al., 2017). The findings showed a statistically significant relationship between teacher education and quality in five subscales: program structure, activities, language and reasoning, parents and staff, and interactions (Manning et al., 2017). Interactions between the teacher and children are the indicator of quality that makes the most difference for children from birth to third grade (Pianta et al., 2016). Teachers with higher educational credentials are more sensitive, show less harsh and detached behaviors, and are more likely to adopt developmentally appropriate practices to facilitate the positive and nurturing interactions essential to

quality (Manning et al., 2017). If teacher interactions are essential to program quality, then the quality of the preparation of the teachers should also be essential. Professional development in conjunction with college coursework can support early childhood teachers in learning essential skills and competencies for interacting with children (Pianta et al., 2016).

In addition to the vital knowledge, skills, and competencies that are foundational for early childhood teachers, some specific professional behaviors and dispositions indicate a quality teacher. Increased levels of teacher professional preparation are positively correlated with increased teacher knowledge, belief systems, and self-esteem (Goble et al., 2015). The key findings from this study are congruent with other studies (Manning et al., 2017) that revealed a positive correlation between higher teacher qualifications and a higher sense of efficacy that leads to higher quality in ECE programs. Informed by this finding, Goble et al. (2015) created an associate to baccalaureate pathway in early childhood teacher education at the University of Oklahoma-Tulsa in conjunction with Tulsa Community College. This comprehensive pathway included additional supports that respond to the unique needs of the early childhood workforce, including financial incentives, provided by the George Kaiser Family Foundation ("Early Childhood Education Institute," 2012). This public-private partnership is an aspirational model for programs and communities, and elements of the pathway, including the focus on educator's knowledge, self-esteem, and professional dispositions are components that could be included in further research on the development of early childhood degree pathways ("Early Childhood Education Institute," 2012).

Knowledge, Skills, and Dispositions

There is a high level of knowledge and skills required of early childhood educators, and to identify these, NAEYC published the first set of standards for professionally preparing early childhood professionals in 1985. The NAEYC standards have continued to evolve over the last 35 years with input from other national organizations such as the Division for Early Childhood and Council for Exceptional Children, the National Association of Early Childhood Teacher Educators, and from advisory groups, educators, and other professionals in the field (NAEYC, 2009). These standards identify six core areas of competence that describe what early childhood educators should know and be able to do in their practice and interactions with young children and families.

Similarly, in 2009, Australia's Early Childhood Education and Care division of the Council of Australian Governments released a policy statement outlining reforms and strategies to professionalize early childhood educators. The council set a goal that by 2020, early childhood educators would all have the knowledge and skills to implement high-quality practices using an interdisciplinary service delivery model (Commonwealth of Australia, as cited in Molla & Nolan, 2019a). To aid in this, Molla and Nolan (2019a) used Nobel Laureate philosopher and economist Amartya Sen's (1999) capability approach to human development as a framework that views professionalism as a type of human capital building that is qualitative. Based on this framework, key dimensions of professional practices for educators include expertise, responsiveness, deliberation, integrity, and recognition (Molla & Nolan, 2019a). Expertise is defined as pedagogical

knowledge and skills, and as a professional disposition, and responsiveness is described as the ability to meet the diverse learning needs of children. Deliberation is a critical practice and quality indicator and is defined as the ability to critically reflect on professional practices and the theories that inform those practices. Similarly, the evaluative space, integrity, is noted as a critical disposition for educators and demands that educators act ethically and professionally. Finally, recognition refers to "the extent to which educators are valued and respected for their professional work" (Molla & Nolan, 2019a, p. 558). According to Molla and Nolan, this evaluative space is directly informed by the public perception of the occupation, and a positive perception of the public is critical to the professionalization of any profession.

In 2018, to build on the recommendations of the National IOM and NRC *Transforming the Workforce for Children Birth Through Age 8* report (2015), NAEYC, in collaboration with national organizations, stakeholders, and educators, lead the Power to the Profession initiative. The goal of Power to the Profession was "establishing unity and clarity around the career pathways, knowledge and competencies, qualifications, standards, accountability, supports and compensation to define the early childhood education profession across all states and settings" (NAEYC, 2020c, p.1). The resulting report, *Unifying Framework for the Early Childhood Education Profession* (NAEYC, 2020c), includes recommendations for a revised set of professional standards leveled and sequenced for the designated roles within the profession. The newly revised standards, the *Professional Standards and Competencies for Early Childhood Educators*, were released in March 2020 and included "a core body of knowledge, skills, values, and

dispositions early childhood educators must demonstrate to effectively promote the development, learning, and wellbeing of all young children" (NAEYC, 2020b, p. 2).

Transforming the Workforce

In 2015, the IOM and NRC released the *Transforming the Workforce for Children Birth Through Age 8: A Unifying Foundation* report which has become a seminal resource about the science of child development. The report specified the professional preparation, knowledge, competence, and skills that research indicated are needed within the early childhood workforce. The report included several vital messages for the field and notes that early educators "bear a great responsibility for their health, development, and learning" (IOM & NRC, 2015, p. 1). Through this report, two well-respected organizations in the national medical and scientific research fields confirmed that our children's future health, development, learning, and wellbeing are in the hands of the early childhood workforce.

The IOM & NRC report contained evidence-based recommendations for professionally preparing early childhood educators. There is a common misconception that early educators do not need the same level of professional preparation as K-12 teachers. This misconception is evidenced by the wide range of requirements to enter the workforce often differ depending upon the age of the child, the type of program providing services, the funding source. State regulatory systems also create different requirements for educators depending on setting and age group, and these vary greatly from state to state. The IOM and NRC (2015) report confirmed,

> the science of child development and early learning clearly indicated that the

> work of lead educators for young children of all ages requires the same high level of sophisticated knowledge and competencies related to child development, content knowledge, and educational practices. (p. 3)

The IOM and NRC Report included a Blueprint for Action with recommended practices to move toward universal standards and policies to ensure the knowledge, skills, and level of education required of teachers of the youngest children equals those required in K-12 settings. The report included five broad categories of recommended competencies for early educators:

> 1) Core knowledge of the science of child development and early learning;
>
> 2) Practices to help children learn and develop based on this science;
>
> 3) Knowledge and skills for working with diverse populations of children;
>
> 4) Development and use of partnerships with families and support services to bolster child learning and development;
>
> 5) Ability and motivation to continually improve the quality and effectiveness of one's practices. (Workman et al., 2018, p. 4)

Future implementation of universal shared competencies and standards is an aspirational goal but could increase the quality of early childhood educator preparation programs.

The Blueprint for Action outlines strategies to unify and align early childhood professional preparation programs including enhancing higher education pathways for practitioners in all settings, using shared knowledge and competencies to strengthen pre-service qualifications, and improving evaluation processes for in-service practices. The report emphasizes evidence-based assessments focused on knowledge, skills, and

practices that research identifies as critical to young children's development. The report also highlights the need for continued advocacy for structural changes in the early childhood system to support the development of improved pathways, structures, and policies, to better prepare and support the workforce (IOM & NRC, 2015).

The educational preparation, compensation levels, and professional development requirements of educators look very different for early childhood educators than for K-12 educators (Phillips et al., 2016). Job responsibilities vary widely, and there are inherent challenges in the early childhood system that are not prevalent in the K-12 system. Positive teacher-child interactions are at the heart of good early childhood teaching practices, and supportive teacher interactions require educators to be well-educated and supported including personal, professional, economic, and mental health supports to successfully address the diverse needs of young children and families (Phillips et al., 2016).

Role of Teacher Preparation Programs

The primary responsibility for preparing the ECE workforce with the knowledge, skills, and competencies needed to support the healthy development of young children lies with early childhood teacher preparation programs. Teacher preparation programs must focus on the knowledge, standards, and competencies identified by the field. Numerous policy reports and studies identify the need for further research on pre-service teacher preparation programs to determine if early childhood teachers receive the appropriate education needed to become effective teachers (Kaplan, 2018; McLean et al., 2023; Zinsser et al., 2019).

Standards and Competencies—Skills and Dispositions

To reduce the gap in knowledge about the depth and breadth to which teacher preparation programs address national standards, Buettner et al. (2016) investigated the extent to which the NAEYC standards and the professional competencies identified by the national Council for Professional Recognition are incorporated into teacher education programs. The study compared the coverage level of standards among associate and baccalaureate program and uncovered a few key differences in the content at the bachelor's and associate levels. Specifically, baccalaureate programs focused on knowledge, and associate programs focused on practice.

This distinction highlights the traditional focus of associate degree programs on preparing the child care workforce versus baccalaureate programs' focus on preparing candidates for teacher certification in K-3 settings. Three areas had a statistically significant difference when comparing the content and curriculum of associate and baccalaureate programs. "Bachelor's programs appeared to focus more on knowledge, such as academic instruction and curricula, and observation/assessment, and associate programs appeared to be more focused on practices, including program and classroom management" (Buettner et al., 2016, p. 168).

The dynamic relationships between faculty and students in teacher preparation programs is an area of research that informs policy and practice. Much of the research on early childhood teacher preparation centers on the structure, components and organization of the degree program (Schilder, 2016). These elements include the standards, theories, learning opportunities, and field experiences encompassed in the

program of study (Douglass, 2019). Research indicated interactions and relationships between teacher educators and students in a higher education were vital to the ability of teacher education programs to meet the needs of diverse students (Douglass, 2018). Douglass hypothesized that "the positive relationships between and among early educators, higher education personnel, and ECE program directors may support early educators to complete their college degree and apply new learning into the early childhood classroom" (Douglass, 2019, p. 2).

Key themes and processes that build high-quality teacher preparation programs and positive relationships that support students in degree completion include mutual respect and caring, believing in educators, flexibility and responsiveness, and mentoring (Douglass, 2019). Furthermore, positive relationships support degree completion, and positive relationships also increase students' ability to apply new learning in the classroom. Modeling positive relationships is a parallel process for students who are educators and should be included as a best practice in teacher preparation programs (Douglass, 2019).

Modeling co-teaching in practicum experiences is one way to support students in gaining skills for building positive relationships with others. Co-teaching is a relational model that supports the formation of a teacher-candidate's teaching practice others (Rabin, 2020). The opportunity to practice working collaboratively with a co-teacher can help develop the mutual respect and caring relationships Douglass (2019) found critical to high-quality teacher preparation. "In co-teaching teacher preparation, mentor-teachers, and teacher-candidates gain experience working together in caring collegial

relationships" (Rabin, 2020, p. 143).

Another best practice for teacher preparation programs is the implementation of contextualized learning approaches such as situated learning theory within field experiences (Green et al., 2018). An emphasis on contextualized practice better prepares teacher-candidates for the realities of the classroom. Situated learning theory is an approach to higher education that includes "constructive learning within an authentic context that incorporates social interaction" (Green et al., 2018, p. 108). Situated learning theory provides opportunities for students to work with peers to construct their knowledge through group work, peer reflections, and other collaborative learning experiences. Students who incorporate situated learning theory better anticipated the complex situations they would face in the classroom. Providing an authentic context for learning is the "fundamental premise upon which situated learning theory rests" (Green et al., 2018, p. 118).

Graduates of the situated learning program reflected that the knowledge and skills achieved through authentic tasks throughout the program could be applied in various contexts. In a follow-up study of the graduates in their first-year of teaching, graduates indicated they could see the value in implementing authentic learning in various school and community learning opportunities. The consistent integration of theory into practice is widely recognized as an element of exemplary teacher preparation programs and is an essential element of degree pathways designed for the early childhood workforce (Green et al., 2018).

High quality teacher preparation programs focus on dispositional elements as

wells as practical knowledge and skills (Zhang et al., 2019). For example, one study investigated an inclusive teaching pathway where K-12 education and special education faculty collaborated to create a dual certification degree for students. The study found that "a shared personal belief system, a positive attitude, strong communication skills, interpersonal problem-solving embedded in the interactional processes led to a successful collaboration" (Zhang et al., 2019, p. 49). Findings also suggest that if the teacher preparation program does not include a focus on dispositional elements, there is a decreased likelihood for student success even when faculty were committed to a successful program (Zhang et al., 2019).

There is a gap between policy and practice that could be reinforced by teacher preparation programs by creating an intentional focus on incorporating social justice dispositions into program curriculum. Social justice initiatives rely on educators having "the moral will to make a positive difference, and it is expressed in the ways that educators grasp and deal with challenges in everyday professional practices" to result in positive changes for all children, particularly the disadvantaged (Molla & Nolan, 2019a, p. 563). Professional educator preparation programs should include opportunities to address ethical dilemmas related to oppression, marginalization, and relational factors of injustice. This pedagogy fosters critical reflection on policy, politics, and identity, preparing educators to respond in socially just ways (Molla & Nolan, 2019a).

Community Collaboration and Collaborative Models

Early childhood higher education institutions need higher enrollment to help recruit and retain a diverse pool of teacher-candidates (Zinsser, 2019). Reduced

enrollment in teacher preparation programs is a reflection on higher education institutions but is also a reflection on the perception of education as a profession. Negative aspects of the early childhood field, including low compensation, poor working conditions, and barriers to entry, were particularly impactful for recruitment efforts especially for diverse and low-income teacher-candidates (Zinsser, 2019).

One way to recruit and retain early childhood teacher-candidates is to build collaborative models and community partnerships, including early learning programs, field sites, community colleges, and universities. Collaborative models intentionally engage students in early childhood systems, policies, advocacy as a framework for professional development. Preparing teachers in relation to community needs can create "mutually beneficial partnerships" that are iterative in nature (Lees & Kennedy, 2017, p. 53). One partnership model was built around a program of study that contains intensive field experience rotations that include partnerships with indigenous community organizations, Early Head Start, community-based organizations for individuals with developmental disabilities, and public preschool programs.

Key points from the model include commitment and trust in shared expertise, meaningful mutual benefit, reciprocity in partnership roles, the value of experiences for preparation/professional development, and mentorship as a professional responsibility. Another fundamental principle of this program design was to align the practices with the overall goal of positively affecting children and families and including community partners throughout the entire redesign process. The research also identified that pathways to baccalaureate programs must be created and maintained through a

collaborative process (Lees & Kennedy, 2017).

Pathways to Early Childhood Degree Completion

The design and makeup of degree pathways in ECE provide a unique challenge compared to teacher preparation pathways for K-12. Early childhood professional preparation programs straddle the dual need to prepare pre-service teachers for the ECE workforce while providing in-service training to address the needs of students currently in the workforce (NAEYC, 2020c). *The Unifying Framework for the Early Childhood Education Profession Executive Summary* (NAEYC, 2020c) called for the creation of three distinct designations of Early Childhood Educator I, II, and III, where "each designation has an associated scope of practice, expected level of professional preparation, and expected level of mastery of the Professional Standards and Competencies for Early Childhood Educators" (NAEYC, 2020b, p.1) and included recommendations for establishing professional preparation pathways aligned to the three designations of the profession. The recommendations included pathways for "early childhood certificate/credential programs, early childhood associate degree programs, and early childhood bachelor's degree/initial master's degree programs, respectively" (NAEYC, 2020b, p. 1). Educators "must have a general ECE foundation before specializing" and professional preparation programs must commit to "providing seamless pathways so individuals may advance their preparation and role" (NAEYC, 2020b, p. 2).

Portable and Stackable Credentials

The recommendation for seamless pathways to early childhood degree completion is not a concept for the early childhood field. For nearly twenty years, experts in early

childhood educator preparation have asserted early childhood degree pathways must be collaborative, efficient, and include credentials that are portable and stackable (Kaplan, 2018). The 2009 edition of the NAEYC *Standards for Early Childhood Professional Preparation Programs* (standards) clarified the value of transfer and articulation for the early childhood field. The 2009 standards specifically stated that three should be a balance of early childhood and general education coursework in associate degree pathways. "The strongest associate and baccalaureate degree programs serving students already in the field are attempting to keep transfer doors open through high-quality professional course work offered concurrently with strong general education [coursework]" (NAEYC, 2009, p. 8). In *Advancing the Early Childhood Profession: NAEYC Standards and Guidelines for Professional Development* (Lutton, 2012) stated that associate degrees should "simultaneously enhance one's current practice while still maintaining transfer options from associate to baccalaureate to graduate degree programs" (Lutton, 2012, p. 16) highlighting the need for pathways to include portable and stackable credentials.

The intentional design of career pathways to include a focus on foundational early childhood content and credentials with visible milestones that can be completed along the way is beneficial to the workforce and correlated with higher levels of student success in completing programs of study (Kaplan, 2018). In most states this is not that case and often there are competing sets of professional standards and a variety of credentials that are not designed to create efficient pathways for the workforce.

The Role of Community Colleges

The designations of Early Childhood Educator II included in the NAEYC *Unifying Framework* (2020c) requires at least an associate degree and highlights the importance ECE associate degree pathways. One fundamental mission of community colleges is to increase access to higher education programs in local communities, and in the 2018-19 academic year, nearly half of the students enrolled in public community colleges were persons of color, including 6% Asian, 13% Black, 24% Latino, and 46% White (Community College Resource Center, 2020). Community colleges serve low-income, first-generation, and non-traditional-aged adult students who often have full-time jobs (Kaplan, 2018). Several recent technical and research reports affirmed the critical role that community colleges play in early childhood educator preparation (Cheng et al., 2018; Kaplan, 2018; NAEYC, 2020c; Workman et al., 2018). According to the NAEYC Early Childhood Higher Education Directory (2020a), there were 1,300 early childhood associate degree programs in the United States, and 20 community colleges southwestern state offer early childhood degrees (AZTransfer, 2021).

A broader understanding of the role of community colleges in educator preparation should include efforts to assess the quality of associate programs and support the creation of a broad agenda for elevating and supporting their role (Kaplan, 2018).

> To maximize the value of community colleges in developing both the current and future early childhood workforce, policymakers and advocates need a clear understanding of the roles community colleges currently play in preparing and developing the early childhood [workforce]. (Kaplan, 2018, p. 5)

Community colleges offer programs of study widely accessible in local communities and were generally better suited to meet the diverse needs of early childhood educators. Workforce demographics showed that most early childhood educators work full-time, were often women of color, and many have primary responsibility for the care of others in their homes (Kaplan, 2018). As for educational demographics, the majority were part-time students, most (60 percent) take remedial coursework, many were English language learners, and most faced significant financial barriers due to the low wages typical of the field (Kaplan, 2018). Together these factors contributed to the longer-than-average time required to achieve degree completion, with many programs estimating 8-15 years to complete a 2-year associate degree (Kaplan, 2018).

Several research reports identified specific innovative strategies colleges used to overcome barriers associated with early childhood degree completion and to improve the quality and diversity of the early childhood workforce. These strategies included scheduling flexible times and places for scheduled courses, using online learning platforms; providing comprehensive student support services and high-quality advising; offering flexibility in the completion of field experiences; redesigning remedial education; providing embedded or standalone supports for English language learners; implementing cohort groups; and offering financial incentives and supports (Cheng et al., 2018; Kaplan, 2018; NAEYC, 2020c; and Workman et al., 2018).

The local accessibility and comprehensive services and support offered at community colleges amplify their significance in early childhood educator preparation.

However, there were concerns about the quality of programs in terms of their ability to address the full range of the early childhood field (birth-age 8, including primary schools), the number and quality of supervised field experiences in the program, and the qualifications of the faculty (Huss-Keeler, 2020). These concerns fuel apprehension by baccalaureate partners in developing transfer agreements. Some suggested methods to alleviate these concerns were addressed in the NAEYC *Unifying Framework* (2020c), which called for universal standards and competencies for early childhood educators to be leveled and sequenced for the three educator designations (ECE I, II, III), including guidance for field experiences, and the adoption of shared practices at state and national levels (NAEYC, 2020c).

Typically, community colleges primarily offer three types of programs of study: certificates, terminal associate degrees, and associate degrees designed to transfer into baccalaureate degree programs (Workman et al., 2018). In a few states, community colleges can offer bachelor's degrees in high-need subjects (Kaplan, 2018). Historically most associate degree programs were designed to be terminal degrees and were intentionally created to lead to direct employment in the field. Recent policy efforts to raise the quality and education of the early childhood workforce have generated a trend toward transfer degrees that include more general education coursework that could better support the transition into baccalaureate programs. Only 15 states have developed transfer degrees were universally taught statewide, and the vast majority of states do not have a statewide articulation of a specific associate degree into a bachelor's degree (Kaplan, 2018). Absent statewide articulation, 3 alignment strategies were proposed to

make articulation easier: common course numbering, a statewide course catalog, and common course curriculum. Additionally, studies recommended the creation of articulation policies that incentivized comprehensive collaboration between associate and baccalaureate programs and mandating a governing entity responsible for oversight and monitoring of articulation agreements. Enabling more community colleges to offer baccalaureate degrees could help meet the demand for increased credentialing in the early childhood field (Kaplan, 2018).

Several best practices that community colleges could use to support transfer into baccalaureate programs included the use of stackable credentials, creating a statewide articulation of coursework, and using shared competencies that were leveled and sequenced. These best practices could support the development of competency-based pathways and avenues to provide credit for prior learning (Cheng et al., 2018; Kaplan, 2018; Workman et al, 2018).

Transfer Pathways

Inefficient transfer systems create barriers for early childhood professionals, including mid-career professionals, seeking to extend their education and qualifications. The loss of credit students experience in inefficient degree pathways is discouraging to students and can cause significant delays in degree completion (Holod et al., 2019). In 2019 the U.S. Department of Education released a study of state policies regarding higher education articulation agreements for early care and education which investigated the governance structures, policies, procedures, and approaches used by six states that facilitated transfer from associate to bachelor's degrees without significantly losing

credit. The study identified several key strategies to improve or create comprehensive articulation and transfer policies such as state-level governance structure; development of standard general education requirements and statewide course equivalencies; active faculty participation in ongoing implementation and maintenance of transfer agreements; and an intentional focus on supporting students with additional resources, supports, and advising (Holod et al., 2019).

One process for evaluating how well higher education institutions collaboratively cleared the path for baccalaureate degrees was investigated by Xu et al. (2018). The study used National Student Clearinghouse Data and created a two-stage framework for benchmarking and determining institutional effectiveness in supporting vertical transfer. The framework was also used to evaluate the effectiveness of degree pathways. The study determined scalable practices institutions used to support effective transfer. Three key strategies were identified including "prioritizing transfer, creating clear programmatic pathways with aligned high-quality instruction, and providing tailored transfer student advising" (Xu et al., 2018, p. 25). Additional studies expanded on the 3 key strategies by investigating high-performing transfer partnerships where specific tactics were identified for each of the three strategies. For example, an intentional focus on connecting transfer to the institution's mission helped increase faculty and staff awareness about making transfer a priority. This intentional focus included the need for significant investments in resources (e.g., materials, personnel, marketing) to enhance the transfer experience and support student retention and completion (Fink & Jenkins, 2017).

Strategically using data to improve transfer is another tactic identified to make

transfer a priority. Disaggregating data by student race, income, and sending/receiving institution can help improve transfer practices and dispel myths about the success of transfer students (Fink & Jenkins, 2017). Cassidy et al. (2001) also indicated that using data helped dispel myths that baccalaureate faculty had about the capabilities of associate transfer students to do well in baccalaureate institutions by presenting data to highlight higher cumulative GPA, higher persistence rates, and greater diversity among transfer students than native students.

High-performing transfer partnerships included collaboration between associate and baccalaureate programs to clarify the pathway, including suggested course sequences, clarifying pre-requisite courses, making regular updates to the pathways and suggesting extracurricular activities to support student engagement. High-performing transfer pathways focus on instruction that prepared students to meet the rigor of baccalaureate courses, including opportunities to engage in field experiences and hands-on learning opportunities. Baccalaureate and associate institutions were encouraged to utilize best practices for tailored student advising. Associate programs supported student success by helping students quickly identify a path, monitoring progress, and keeping students on the path by intervening when students were off-track. Likewise, baccalaureate institutions provided advising support to transfer students before, during, and after the transition and worked to replicate elements of the first-year experience provided to native baccalaureate students (Fink & Jenkins, 2017).

The requirements of national accrediting bodies and state and federal teacher certification policies and requirements were often cited as barriers to creating teacher

certification transfer pathways. Accrediting bodies, such as the Council for the Accreditation of Educator Preparation, have strict requirements for educator preparation programs. Sometimes, these requirements were used as justification for not allowing early childhood coursework taken at an associate level to be applicable (transferrable) to coursework at a baccalaureate level (Cassidy et al., 2001). A study of the merits and possible consequences of high-accountability for teacher preparation programs required by the U.S. Department of Education found that while there is "some evidence of the merits of accountability policies in improving teacher education and preparation quality and outcomes" (p. 2), there were also possible negative impacts and too much standardization and accountability could "undermine the development of teachers' human, cultural, and social capital" (Tatto et al., 2016, p. 20).

Degree Pathway Models

One common degree pathway model in the southwestern state is a dual certification bachelor's degree that combined early childhood teacher certification with either elementary or special education certification (AZTransfer, 2021). This model is often marketed to students, educational leaders, and school superintendents as a strategy to reduce teacher shortage. The model included possible benefits for higher education institutions, school districts, and the workforce. With a greater pool of students to recruit from, baccalaureate institutions could better collaborate with community colleges to create bachelor's degree cohorts in local communities. These community partnerships could bring greater flexibility for school district principals in classroom placements, particularly in schools facing pervasive staff turnover and personnel changes, and can

provide expanded job opportunities and marketability for graduates. Local partnerships provided increased accessibility for students who could not travel to complete their baccalaureate degree (Xu et al., 2018).

There were also potential drawbacks of dual certification pathways, including whether dual certification pathways were in the best interest of early childhood students who do not want to work in special education or grades 4-8. Boyd and Newman (2019) found the dual early childhood and primary degree created to address workforce shortages did not fulfill the stated goals, nor did it meet the student expectations for teacher preparation. Because of the over emphasis on content for the primary grades the dual pathway did not adequately prepare early childhood teachers for working in early childhood centers and contribute to attrition and retention (Boyd & Newman, 2019).
A quantitative study of an early childhood and elementary education pathway in Australia discovered students' perceptions of the value of the combined program. Although the study identified challenges with the combined ECE and elementary pathway, the students had positive overall perceptions about the program and the quality of the preparation they received (Harrison & Heinrich-Joerdens, 2017).

Another type of ECE degree pathway model focused on the transfer of terminal associate degrees into baccalaureate programs that do not lead to teacher certification. This study discussed the role Applied Baccalaureate (A.B.) degrees can have in helping advance workforce credentials and found that baccalaureate programs that do not lead to certification generally accept more credits in transfer than traditional teacher preparation programs. Therefore, more of the associate-level coursework was applied toward an A.B.

degree (Bragg & Soler, 2016).

The lack of credit mobility from associate to baccalaureate degrees is common in ECE. The policies and structures of transfer pathways were a barrier to the number of credits applied to baccalaureate degrees at transfer, and the lack of credit mobility may also contribute to the low rates of transfer students who complete bachelor's degrees. Transfer policies need to be designed to support diverse students and could be redesigned to better support first-generation, non-traditional, low-income, and students of color. (Hodara et al., 2017; Taylor & Jain, 2017).

For members of the early childhood workforce who do not want to work in K-3 classrooms, A.B. degrees can maximize the mobility of credits earned at the associate-level and provide a more efficient route to baccalaureate degree completion. Efficient transfer pathways from an associate degree to an applied bachelor's degree can be useful in transforming the workforce of early childhood educators who work with infants and toddlers or preschoolers in sectors outside of public school.

A possible impact of the A.B. pathway in the study's southwestern state is supporting access to teacher certification through the alternative teaching certification process. Legislation in the state created an alternative certification route that allows people with baccalaureate degrees, or sometimes no baccalaureate degree, to take specific steps to become certified teachers (Teacher Certification, 2022). Candidates with a baccalaureate degree can apply for alternative certification and, if approved, are allowed one to three years to complete minimal additional coursework and examinations to become certified. In this use case, A.B. degree pathways could be instrumental in

addressing workforce preparation needed to reduce teacher shortages. Bragg and Soler (2016) discussed that more research is needed to determine the impact of A.B. pathways on student outcomes, such as completion and persistence rates, and the possible impact on the workforce when a student completes an A.B. degree.

Role of Grow Your Own Programs

Grow Your Own (GYO) teacher programs were identified as one possible way to address teacher shortages and increase racial and ethnic diversity within the workforce. GYO programs "expose talented individuals to a career in education and may help them along the pathway into the profession" (Podolsky et al., 2016, p. 25). Comprehensive GYO programs typically offer incentives and financial support, including career counseling, comprehensive personalized academic support, real-world work experiences, and community connections and mentorship opportunities (Podolsky et al., 2016).

One component integral to the success of diverse students is the integration of a Community Cultural Wealth (CCW) approach. Yosso (2005) defined CCW as "an array of knowledge, skills, abilities and contacts possessed and utilized by Communities of Color to survive and resist macro and micro forms of oppression" (Yosso, 2005, p. 77). CCW views the diverse knowledge, skills, and experiences people of color bring to teacher education as valuable assets. These assets were nurtured through support structures in critical academic, social, financial, and linguistic areas. The pedagogical supports in teacher preparation programs must also go beyond a written conceptual framework of cultural responsiveness and should include an intentional design that counters the unresponsive curriculum and micro-aggressions that students of color often

experience in teacher preparation programs (Gist et al., 2019).

Two types of GYO programs were described, one designed for mid-career professionals such as ancillary school employees (i.e., crossing guards, social service providers, instructional assistants) and community advocates and champions, and another type designed as pipelines for high school students. Institutional initiators of GYO programs included private foundations, community-based organizations, leadership development programs, teachers' unions, and minority-serving organizations. These partnerships were most often created in partnership with educator preparation programs at higher education institutions. "Collaborations between community-based organizations, districts, schools, and higher education partners were essential to disrupting institutionally racist practices common in a predominately white workforce" (Rogers-Ard et al., 2019, p. 24).

For the GYO projects that were designed to be a pipeline for high school students, the attrition ranges were between 40-50 percent. Recommended changes to policy and practice examined the structural factors that led to attrition and identified a need for creating seamless transfer from high school into teacher preparation programs. It was also recommended that GYO programs begin with the end in mind and "ensuring system supports were in place at each point of the teacher development continuum" was crucial to creating sustainable pathways (Gist et al., 2019, p. 1).

The GYO Collective defined these programs as "highly collaborative, community-rooted, intensive supports for recruiting, preparing, placing, and retaining diverse classroom teachers who dismantle institutional racism and work toward

educational equity" (Rogers-Ard et al., 2019, p. 27). The GYO Collaborative seeks to remove the structural and policy barriers that impact teachers of color along the entire teacher development continuum from recruitment through preparation and placement, and retention. The overall goal of the Collaborative is to staff high-need schools with diverse teachers who reflect the communities of the children they serve.

The whiteness of the teaching profession is evident in nearly every level of education including elementary through higher education (Rogers-Ard et al., 2019) and though it has been noted that "the early childhood workforce (B-3) is significantly more diverse than the K-12 workforce" (Workman et al., 2018, p. 9), there is still a risk that bachelor's degree requirements for teaching outside public school settings could lead to a less racial and linguistical workforce. The National Center for Education Statistics noted that "43% of whites in their late twenties had received a bachelor's degree or higher in 2016, whereas only 23% of blacks and 19% of Hispanics had received one" (NCES, 2016, p. 708).

When implemented intentionally and backed by suitable systems, structures, and policies, GYO programs had the most potential for success. Especially when they were creatively adapted to "specific cultural nuance, geographic influences, and organizational partnerships to encourage continual vigilance toward recognizing the structures of racism that collude to maintain barriers for adults of color becoming long-term teachers of color" (Rogers-Ard et al., 2019, p. 31).

An intentional effort to address structural inequities that hinder teachers of color was supported by a qualitative study of two Puerto Rican teachers who participated in a

GYO program in a large urban community (Quiñones, 2018). The study highlighted that access to multiple community-based mentors and support systems positively influenced the success of teaching pathways for underrepresented youth and created opportunities for them to contribute to their communities. Additionally, the research emphasized the need for continued exploration of policy solutions to remove barriers across the teacher development continuum (Quiñones, 2018).

Increasing Diversity and Equity

The NAEYC position statement on *Advancing Equity in Early Childhood Education* (2019) was created to advance equity in ECE and to address the systematic racism and bias that have contributed to the barriers to access, inequitable compensation, and poor working conditions for the early childhood workforce.

> Advancing equity in ECE requires understanding this broader societal context, these biases, and the ways in which historical and current inequities have shaped the profession, as they have shaped our nation. The biases we refer to here are based on race, class, culture, gender, sexual orientation, ability and disability, language, national origin, indigenous heritage, religion, and other identities. They are rooted in our nation's social, political, economic, and educational structures. (p. 4)

Intentional actions must be taken by the ECE higher education community to reduce the systematic racism and oppression experienced by members of the early childhood workforce. Additionally, early childhood professional development systems must include an intentional focus on increasing access, efficiency, and equitable learning opportunities

for the early childhood workforce (NAEYC, 2019). Recommendations for higher education institutions and those facilitating educator preparation and professional development were outlined including increasing collaboration with community leaders and public officials to reduce barriers to educational attainment, implementing effective transfer and career pathways (including credit for prior learning), and intentionally fostering a sense of belonging and support for students, particularly first-generation college students.

Practitioners, policymakers, and researchers at the local and national levels were concerned that policies and structural changes intended to raise the educational preparation standards for the early childhood workforce without sufficient, comprehensive support might negatively affect the racial, ethnic, cultural, and linguistic diversity of the early childhood workforce (Gardner et al., 2019). “Increasing the number of teachers of color in the workforce requires both intentional preparation and hiring, and [the provision of] ongoing supports to overcome the barriers to recruitment and retention” (Carver-Thomas, 2018, p. 17). Promising practices included building high-retention, supportive pathways into teaching (e.g., GYO programs, teacher residencies, scholarships, articulation agreements), creating proactive hiring and induction strategies, and improving school leadership to support better teaching conditions (Carver-Thomas, 2018). Investments in a high-quality, diverse workforce benefit students, educators, schools, and communities; these promising practices were enhanced when the specific needs of communities and diverse learners were considered.

Needs of Diverse and Non-Traditional Learners

Many colleges in the southwestern state serve diverse and tribal students, and 65% of public institutions of higher education in the state were designated Hispanic Serving Institutions (Hispanic Association of Colleges and Universities, 2019). In the state, "Hispanics comprised 31% of students at public, 2-year colleges; 21% at public, four-year institutions; 12% at private, not-for-profit, four-year institutions; and 11% of students at private, for-profit four-year colleges" (Vagi et al., 2018, p. 36). Similarly, much of the early childhood workforce is Hispanic. The growing population of Hispanic students in the state's higher education institutions and the growing number of Hispanic early childhood educators highlights the need to identify and address the barriers Hispanic women face in accessing higher education pathways.

Research has identified fundamental structures that contribute to the challenges first-generation Latina women face in higher education (Storlie et al., 2016). These structures included financial and career development challenges, conflicts with family life roles and values, and language and cultural stresses. Two critical themes uncovered in the study where the challenges Latina women have fitting in at predominately Caucasian campuses and the need for redefining career development pathways. Career counselors and college advisors played a critical role in supporting first-generation Latina students in career development and obtaining educational success (Storlie et al., 2016).

Advising and career counseling were elements repeatedly shown in the literature to support the successful preparation of a diverse early childhood workforce (Xu et al., 2018). One common challenge ECE students face is the lack of financial and academic

support needed to succeed in higher education programs (Gardner et al., 2019). Offering a variety of support, including specialized academic advising related to early childhood careers, is critical to student success. When higher education institutions provided specialized assistance through strong, supportive relationships with academic advisors, students could better navigate the complex higher education processes and program requirements that can otherwise become barriers. Supportive advising relationships also helped connect students with additional resources on campus, such as "tutoring, disability support services, zero-cost textbooks, food pantries, and other critical financial aid resources" (Gardner et al., 2019, p. 57).

Teacher education programs need to be intentional in how they help non-traditional early childhood students navigate the challenges inherent to putting theory into practice while they are working in the field and trying to form an identity for themselves as professionals. One way to support this professional shift is including dialogic (reflective) practices involving relationship-building between students, college faculty, mentors, and educational leaders (Barron, 2016). Teacher educators provide a compass for students, especially non-traditional students, and should provide culturally appropriate academic advising and strong faculty-student relationships (Douglass, 2019; Fink & Jenkins, 2017; Gardner et al., 2019).

The Early Childhood System

Seminal research on the science of child development shows that the early years are crucial learning years (IOM & NRC, 2015). At a national level, and in most states, ECE workforce preparation is the function of a complex and dynamic early childhood

system. Minimum standards and competencies for educators are addressed by several organizations, including licensing (ongoing training), departments of education (minimum standards to enter), department of labor (small businesses function), and in higher education institutions (NAEYC, 2020b). Achieving convergence between these sectors and functions requires coordination and alignment among stakeholders at multiple levels and across different systems. Better support of early care and education professionals requires the mobilization of local, state, and national leadership and "building a culture in higher education and ongoing professional learning that fosters a cohesive workforce for young children; ensuring practice environments that enable and reinforce the quality of these professionals' work; and creating consistency across policies and infrastructure" (IOM & NRC, 2015, p. 2).

In 2016, the U.S. Departments of Labor, Education, and Health and Human Services issued a joint memorandum committing to increasing adult education pathways to gain skills and credentials needed for in-demand jobs. The memorandum resulted in increased federal investments in several initiatives and programs designed to support workforce development in various sectors. The project utilized the U.S. Department of Labor Career Pathways Toolkit, which identified six key elements of a career pathways framework. These key elements were "building cross-agency partnerships and clarifying roles, identifying sector or industry and engaging employers, designing education and training programs, identifying funding needs and sources, aligning policies and programs, and measuring system change and performance" (Limardo et al., 2016, pp. 6-7). In 2016, the Department of Labor's commissioned an examination of the current practices of state

systems in credentialing the early childhood workforce. When the framework was applied to the early childhood field, several issues were identified that added to the complexity of creating an efficient early childhood credentialing system. The issues included multiple points of entry into the field; challenges with articulation and transfer; portability of credentials, degrees, and certificates; financial support, including costs of college attendance and sustainable wages; and the alignment of governance structures (Limardo et al., 2016). An aligned early childhood system is essential not only for the current members of the workforce, but also for the entire field as state and federal investments in universal preschool and Pre-K would require a highly qualified workforce (Limardo et al., 2016).

Early Childhood Policies and Structures

Mobilizing the early childhood professional development system requires a comprehensive review of how systems, structures, and policies are intentionally designed to support and advance a diverse, highly qualified, and equitably compensated workforce. Several federal agencies commissioned policy studies to investigate early childhood workforce compensation, career pathways, higher education articulation agreements, and the alignment of the training and professional development and education systems (Limardo et al., 2016).

Early childhood systems, policies, and structures drive the development, quality, and stability of the early childhood workforce. “Systemic structure is concerned with the key interrelationships [and variables] that influence behavior over time” (Senge, 2006, p. 44) and that “structure produces behavior and changing underlying structures can

produce different patterns of behavior" (p. 53). As applied to developing ECE career pathways within the complex early childhood professional development system, policy leaders must carefully design and manage the structures they create to produce the behaviors they desire. Policymakers must carefully consider the intended outcome of workforce policies to ensure that structural decisions support the creation of a diverse workforce that meets the needs of all children, families, and communities.

There is an imbalance between policy structure and employment trends in the early childhood workforce and connections between career aspirations of early childhood students and the eventual employment choices of graduates. In Australia, there is a common distinction that educators who work with school-age children in primary grades are providing *education*, while those who work in settings before school-age are providing *care* (Gibson et al., 2020). Much like in the United States, there is a distinction between care and education settings regarding working conditions, compensation, and the overall perceived status of educators. In 2015, Australia created a national call to action to improve the quality of professional preparation of educators and implemented regulations and assessments to improve teacher quality in all settings (Rowe & Skourdoumbis, 2019). The regulations indicated that educators in care and education settings should have the same qualifications, including a four-year early childhood teaching degree. Rowe and Skourdoumbis (2019) set out to determine the employment decisions of college graduates in choosing either a care or education setting and found that although graduates were prepared to work in the full range of care and education settings, most graduates eventually chose education settings in primary grades. When

asked about their decision-making process, graduates noted that they recognized the value and importance of the pre-primary years, but they "conveyed a strong reluctance to seek employment in center-based care settings" and identified that the main deterrent was the "perceived undervaluing of the work in center-based child care" (Gibson et al., 2020, pp. 85-86). It was theorized that the perceptions of value fueled the decisions of graduates who chose employment in primary grades.

There are tangible factors that influence career choices (e.g., longer work hours, additional workdays, less paid time off, significant differences in pay and benefits), and intangible factors (e.g., perceptions of media, peers, supervising teachers, friends, and family members) that also influence the career aspirations of graduates (Gibson et al., 2020). Careful attention to the structure of education pathways from the beginning of the program, including opportunities for students to participate in positive field experiences in both care and education settings, including those that showcase high-quality care. The importance of positively portraying educators who choose pre-primary care settings was also noted as way to influence career choices (Gibson et al., 2020).

Policy recommendations in two key areas— building effective higher education pathways and supporting students in meeting high expectations— could help advance the early childhood workforce (Gardner et al., 2019). These policy recommendations included:

1) build the capacity of higher education programs and ECE faculty to prepare a diverse workforce;

2) support high-quality clinical practice;

3) develop clear pathways for students to move from associate to baccalaureate programs;

4) fund academic supports for ECE students, including specialized advising;

5) offer financial assistance to educators earning an early childhood degree or credential;

6) set clear, high expectations for early childhood educators. (pp. 113-114)

These recommendations and structural enhancements align with other research on early childhood career pathways and could create meaningful positive social change for the early childhood workforce (Carver-Thomas, 2018; Kaplan, 2018). States must have policies in place to collect meaningful workforce data, provide high-quality ongoing professional development, mentoring, and coaching, and make investments to address inequitable compensation to support and maintain a diverse and effective early childhood workforce (Gardner et al., 2019).

Role of Professional Development

The knowledge and skills needed to be an early childhood educator are not exclusively learned in formal higher education settings. In most states, the in-service professional development system plays a significant role in the training and education. Micro-credentialing is one avenue being explored to support employers in understanding an applicant's skills and abilities before offering employment. Skill acquisition theory asserted that "humans learn best when they test their knowledge using authentic and practical measures" (Gauthier, 2020, p. 3). Overall, the ECE industry is not satisfied with the skills and abilities of candidates who have completed degrees alone and questioned

the validity of the college transcript as a mechanism to represent competence. Identifying and reporting micro-credentials for critical skills and abilities was identified as a benefit to the workforce and employers (Gauthier, 2020).

Credentials offered by colleges must hold value for the industry but must also be rigorous and holistic to meet the academic institution's requirements. Colleges could work with their advisory boards to create a revised curriculum that integrates a micro-credentialing structure with traditional project-based learning and assessments that include opportunities for authentic field experience. Educator preparation programs could also "work to better incorporate general education concepts into technical courses and curricula" (Gauthier, 2020, p. 5). A series of micro-credentials alone were not enough to prepare educators for the complexity of the work required in early childhood classrooms. Integrating micro-credentialing into technical and general education curricula also supports learning soft skills such as "critical thinking, creativity, collaboration, motivation, self-efficacy, metacognition, problem-solving, rational and organized thought process, and communication" (Gauthier, 2020, p. 1). Professional dispositions were inherently intertwined with the daily responsibilities of early childhood educators, and knowledge and skills alone do not assure high-quality teacher preparation.

Integration of Reflective Practices and Supporting Self-Efficacy

Engaging in an ongoing reflective approach to teaching that emphasizes observations of teacher practices in actual classrooms can help teachers improve their interactions with children and develop positive responses to classroom situations (Jamil & Hamre, 2018; Roberts et al., 2020) Supports such as coaching (where coaches observe

teachers and provide feedback to help them improve practices) and reflective writing practices help increase early childhood teacher's sense of efficacy and decrease perceived levels of burnout and stress when embedded in online professional development opportunities. Reflective practices relate to personal wellbeing rather than supporting effective teaching, and when educators were enrolled in professional development that only included course content, they showed decreased self-efficacy and higher levels of personal stress. Conversely, participants who were enrolled in the course and received coaching and reflective writing opportunities did not experience those adverse effects (Roberts et al., 2020).

Research on teachers' self-efficacy beliefs is generally rooted in the social-cognitive theory created by Albert Bandura (1997). According to the social-cognitive theory, self-efficacy beliefs were influenced by four primary sources of information: mastery experience, vicarious experience, verbal persuasion, and physiological arousal (Bandura, 1997). These sources of information may strengthen or weaken an individual's self-efficacy beliefs (von Suchodoletz et al., 2018). Educators' beliefs about their self-efficacy change over time, were related to the number of success and mastery experiences, were state-dependent based upon the perceived level of success or failure of their students. Educators' self-efficacy beliefs also rose and fell with feelings of success or failure in dealing with children who demonstrate challenging behavior. "Teachers' self-efficacy beliefs are significant predictors of students' academic achievement, motivation, and success at school as well as teachers' professional commitment, retention, and job satisfaction" (von Suchodoletz et al., 2018, p. 281).

A teacher's education level significantly influenced their sense of efficacy in the classroom. Practical and theoretical knowledge informed instructional decisions, and higher levels of education are positively correlated with stronger self-efficacy beliefs (Tschannen-Moran & Johnson, 2011). Coaching, collaboration, and collegiality with peers also played a vital role in building self-efficacy (von Suchodoletz et al., 2018). Professional development programs that foster collaboration, dialogue, and reflection can further enhance teachers' confidence and effectiveness. As von Suchodoletz et al. (2018) noted, "Teachers' self-efficacy beliefs are a powerful predictor of various teacher and student outcomes, and the findings highlight the importance of professional development for in-service teachers that addresses sources of self-efficacy information as a pathway to (positive) change" (p. 286).

Coaching

Coaching, as defined by NAEYC and the National Association of Child Care Resource and Referral Agencies (NAEYC & NACCRRA, 2023) is a

> relationship-based process led by an expert with specialized and adult learning knowledge and skills… and is designed to build capacity for specific professional dispositions, skills, and behaviors and is focused on goal-setting and achievement for an individual or group. (p. 11)

Coaching is a promising practice that can contribute to the educator's sense of self-efficacy and student achievement and may be an equally effective intervention for teachers working at all school levels (Kraft et al., 2018).

The southwestern state's QRIS coaching model included "individualized guidance

and support, monthly onsite visits, targeted training and T.A., and support of goal development and implementation" (Epstein et al., 2017, p.11). In a recent validation study of the states QRIS, it was determined that "the professional development activities provided by coaches are beneficial to program quality" (Epstein et al., 2017, p. viii). Epstein et al. also noted:

> The main benefit of coaching is that it provides resources and training for teacher, and the key strength of this support is that it is individualized for the program, which helps to meet the needs of each participant at their level (p. 41).

However, coaches themselves identified that finding enough time to address the professional development needs of the staff in the program was a significant challenge. Coaches may need more flexibility in implementing coaching activities and "may also need more support to help them individualize the professional development and T.A. they provide to meet programs' needs better when there is limited time available" (Epstein et al., 2017, p. viii). The QRIS validation study also described concerns about the ability to take the coaching strategy to scale and make it available to all educators that need it (Epstein et al., 2017).

One implementation challenge with coaching models was building enough capable coaches with expertise well matched to the workforce's diverse needs. Another major implementation challenge was the cost of intensive coaching and the ability to bring this strategy to scale. Kraft et al. (2018) explained:

> Given the billions of dollars U.S. districts and others around the world currently spend on PD, coaching should not be seen as prohibitively expensive from a

> policy perspective. Instead, policymakers and administrators must judge whether their current expenditures on PD could be utilized more effectively. One approach would be to allocate resources to high cost but effective PD programs for teachers most in need of support, such as coaching, rather than to lower cost but less-effective programs for all teachers. (p. 570)

Virtual coaching may provide a model for addressing the need for high-quality coaches when there are resource constraints (Kraft et al., 2018).

Quality Initiatives and Educator Preparation

A lead early childhood governmental agency in the southwestern state identified a strategic goal of implementing an aligned, comprehensive professional development system to grow the early childhood workforce and support and retain early childhood educators in the birth to age five space (First Things First, 2018). The southwestern state's QRIS is not only an indicator of quality for child care programs but is one of the few leverage points in the state that contributes to the increased quality of the early childhood workforce. QRIS programs are encouraged to have a percentage of staff members who meet education or credentialing requirements to help programs move up through quality levels and improve program ratings. The state offers college scholarships for members of the early childhood workforce registry who work or volunteer in programs with children from birth to age five (First Things First, 2018).

For educators in public school classrooms, the southwestern state's department of education is responsible for credentialing and certification of educators who primarily work in Pre-K to grade 3. The state's official early childhood teacher certification is for

children from birth to grade 3. However, the state does not fund full-day kindergarten or universal preschool, or pre-kindergarten. The southwestern state does not utilize the national TEACH Early Childhood program, and there are few baccalaureate scholarship opportunities for ECE students seeking bachelor's degrees that lead to teacher certification (Arizona Department of Education, 2020; Educator Recruitment & Retention Task Force, 2015).

Recent attempts to address the teacher shortages in the state led to state-level policy changes and the deregulation of teacher certification requirements. The changes allow underprepared educators to access multiple alternate certification pathways, including allowances for long-term substitutes to have primary responsibility for the classrooms and avenues for districts to pursue emergency certification in high-need areas (ASPAA, 2018).

Teacher Shortage

The teacher shortage across the United States has existed for several years. Recent research confirmed this ongoing problem and indicated an increase in teacher shortages and downward enrollment trends in educator preparation programs nationwide (Zinsser, 2019). In 2018, the southwestern state was named the least attractive state for teacher recruitment, and studies have reported that the teacher shortage is at crisis levels (Arizona Department of Education, 2020; Education Resource Strategies, 2018; Educator Recruitment & Retention Task Force, 2015; Hunting et al., 2017). The southwestern state's future points to continued teacher shortages due to the continued high number of unfilled teaching positions and the attrition from those retiring or struggling with the

increased demands on the teachers that remain (ASPAA, 2018).

In 2015 the southwestern state's department of education created a task force to determine the actions policymakers could take to address the department's priorities for every child in the state to have access to a highly-qualified teacher and for every teacher to be well-prepared and compensated for their professionalism and academic preparation (Educator Recruitment & Retention Task Force, 2015). The Educator Recruitment and Retention Task Force identified policy actions the state could take to address the teacher shortage, including legislative actions, specifically those that address low levels of general education funding in the state budget, addressing significant issues affecting teacher recruitment including low wages, decreased enrollment in teacher preparation programs, lack of mentoring and job-related professional development, and finally working collaboratively at state and local levels to create effective systems to increase teacher salaries and recruit and retain the workforce (Educator Recruitment & Retention Task Force, 2015).

Data collected by the southwestern state's Personnel Administrators Association from 2013 to 2017 consistently showed decreased numbers of highly qualified teachers, increased attrition, and increased numbers of teaching positions that remain unfilled each year, forcing higher numbers of children into already full classrooms (ASPAA, 2018). The state's retirement system data showed that 24% of the state's teachers will soon be eligible for retirement (ASPAA, 2018). In 2020, it was determined that one in twenty classrooms in the southwestern state were impacted by the teacher shortage (Arizona Department of Education, 2020). These factors continue to exasperate an already

stretched-thin public education system where teachers do not feel valued or respected.

A public policy institute at a university in the southwestern state, in collaboration with a community foundation and other philanthropic partners, created a report with policy recommendations for finding and keeping educators in classrooms (Hunting et al., 2017). The report identified four major themes contributing to the state's challenges with teacher recruitment and retention. These themes included the need for professional pay, as teachers typically earn 30–40% less than other professions requiring a bachelor's degree. Additional factors are increased workloads driven by accountability measures, larger class sizes, and overall reductions in state education funding. The report also highlighted the importance of broader support from legislators, school leaders, and parents to reinforce teachers' efforts and address workforce sustainability.

A final theme emphasized educators' passion for their profession, reflecting their enthusiasm and personal commitment to teaching. However, the report noted that teachers were unlikely to remain in the field if intrinsic motivation or personal passion is absent. Teachers in the southwestern state consistently cite their dedication and sense of calling as key reasons for staying in the classroom despite systemic challenges classrooms However, new recruits need to see education as a valued profession or it will be difficult to recruit them into the classroom (Hunting et al., 2017). Finally, it is noted that professional pay for the southwestern state's teachers, while not the only factor affecting recruitment and retention, is essential for the teachers. Despite recent legislation to increase teacher pay, state teachers were still the lowest in the nation for teacher salaries when adjusted for the cost of living (Hunting et al., 2017).

Darling-Hammond & Podolsky (2019) found that even though teacher shortages in the United States have been prevalent since the 1930s, there were leverage actions policymakers and leaders can take to break the cycle of teacher shortages. Over those 90 years, hundreds of thousands of students in the United States have attended schools where teacher turnover is high, teachers were underprepared, and classroom sizes were large. Teaching conditions in the United States compare poorly to teachers in other similarly economically advantaged nations. Policy actions that could be taken to break this cycle and avoid the coming crisis of teacher shortage included equitable funding for schools, competitive teacher compensation, high-quality teacher preparation at low or no cost, mentoring and support, and careful recruitment of teachers with the proper knowledge and dispositions for the profession. With high-quality teacher preparation being key to successfully addressing the teacher shortage, it is imperative to study how communities can create systems, structures, and policies to support effective early childhood preparation pathways (Darling-Hammond & Podolsky, 2019).

Summary

Considering the state and national initiatives in place to support the recruitment and retention of a diverse, highly qualified, equitably compensated early childhood workforce (NAEYC, 2020c), there is a need to investigate the systems, structures, and policies related to early childhood career pathways. There is sufficient evidence that formal preparation of early childhood educators is vital to high-quality programs for children and families (Donoghue et al., 2017; IOM & NRC, 2015; Manning et al., 2017). Recent research and policy reports also indicated that early childhood professional

development systems must intentionally focus on increasing equitable access to credentialing and professional preparation pathways for the early childhood workforce (Gardner et al., 2019; NAEYC, 2019).

To create systems changes to impact career pathways, it is essential to investigate the perceptions of early childhood systems partners who influence the structures and policies that affect the creation of early childhood degree pathways from the high school to the baccalaureate level on ways career pathways could be improved. This investigation contributed to a better understanding of how equity and access, professional milestones and curricula, coursework and field experiences, community partnerships, and transfer pathways contribute to future educators obtaining the knowledge, skills, dispositions, and credentials necessary to enter the early childhood teaching workforce more efficiently (McLean et al. 2023; Xu et al., 2018).

This qualitative study examined ECE career pathways by investigating the perceptions of educational personnel in one southwestern state regarding the current systems, structures, and policies related to career pathways through the high school, community college, and university levels. Through an exploration of the literature and current data on this subject and interviews with key informants at every educational level, the evidence collected adds to the current body of literature about early childhood educator preparation and increases understanding about early childhood systems, structures, and policies related to career pathways that could support positive social change for the early education workforce.

Chapter 2 reviewed the policies and structures of early childhood career pathways

and the current research, policy reports, and seminal literature relevant to this study. The literature review included qualitative and quantitative studies that identify and describe the systems, structures, and policies related to early childhood degree pathways. Chapter 3 describes the research method for the study, including the research design and rationale, the role of the researcher, and the methodology, including participant selection, instrumentation, and procedures for recruitment, participation, and data collection. A data analysis plan is also presented, including measures to assure trustworthiness and ethical procedures. Chapter 4 includes the data and an in-depth analysis of the study's results, and Chapter 5 presents a discussion of the findings and implications of the study.

Chapter 3: Research Method

This qualitative study was conducted to examine ECE career pathways by investigating the perceptions of educational personnel in one southwestern state regarding the current systems, structures, and policies related to career pathways through the high school, community college, and university levels. I investigated the perceptions of early childhood system partners to understand better how equity and access, professional milestones and curricula, coursework and field experiences, community partnerships, and transfer pathways contribute to future educators obtaining the knowledge, skills, dispositions, and credentials necessary to enter the early childhood teaching workforce more efficiently (McLean et al. 2023; Xu et al., 2018). Through an exploration of the literature and current data on this subject, and interviews with key informants at every educational level, the evidence collected adds to the body of literature about early childhood educator preparation. It also increases the understanding of early childhood systems, structures, and policies related to career pathways that could support positive social change for the early education workforce. I constructed an instrument of interview questions to determine stakeholders' perceptions. The study's design was qualitative, and its aim was to investigate the ways early childhood systems, structures, and policies related to career pathways could be improved.

The chapter details the research design and rationale and the researcher's role. Next, there is a review of the methodology, including a discussion of the researcher-created instrument. The procedures for participant selection, recruitment, and participation are explored. Then there is a description of the data analysis plan and how

trustworthiness are assured. The chapter closes with a discussion of ethical procedures and safeguards.

Research Design and Rationale

The central research question for this study was "What are the perceptions of early childhood systems partners who influence the structures and policies that affect the creation of early childhood degree pathways from high school to the baccalaureate level on ways career pathways could be improved?" From this question, additional qualitative research questions were developed:

1. What are the perceptions of early childhood systems personnel at the high school, community college, university, and state systems levels on the effectiveness of the systems, structures, and policies that are related to career pathways for early childhood educators?
2. What are the perceptions of early childhood systems personnel at the high school, community college, university, and state systems levels on ways career pathways are related to degree completion and shortages of qualified early childhood educators?

The central concept of the study was that the formal education and professional preparation of early childhood educators is a crucial element to high-quality programs for children and families; however, many children in the southwestern state still need access to a highly-qualified educator. The fundamental goal of the study was to understand how the systems, structures, and policies related to early childhood career pathways can be improved to support positive social change in the early education workforce.

The nature of this study was a qualitative study with interviews. The qualitative approach is best suited for exploring a problem and when seeking to gather feedback about the fundamental concepts of a problem. This approach is also best when seeking to develop an understanding of the participant's experiences with the phenomenon of the study (Creswell, 2015). A purposive sample of educational leaders participated in semistructured interviews to gain this understanding.

Role of the Researcher

The role of the researcher in this qualitative study was to ensure that all aspects of the research were completed ethically. As a researcher in this study, I took the role of observer, and to establish trust with the participants and readers, I explored my own experiences, assumptions, and biases about this phenomenon before conducting research and remained objective during the interviews, data collection, and analysis process. To maintain an ongoing awareness of my role and potential influences on this study, I engaged in researcher reflexivity by maintaining data collection logs that included my reflections about my experiences and maintained a consistent time to write reflective audit notes (Ravitch & Carl, 2016).

I am not employed at any educational institutions or state agencies whose representatives were interviewed for this study. I was, however, the principal investigator for 2 statewide strategies that support the early childhood workforce, including a wage enhancement program and an early childhood scholarship program administered by the state's lead child care administration agency. No part of my salary comes from these grant programs. My role in the grant programs requires participation in early childhood

workgroups, and advisory committees focused on career pathways and workforce development.

My full-time position as early childhood department chair at a community college mandates I attend the annual Early Childhood Articulation Task Force meeting. My active participation in the committees is part of my professional responsibilities. My engagement in the workgroup created an increased understanding of the components of the early childhood professional development system, the role of articulation agreements, and the need to investigate the current pathways. However, it did not create a bias for a particular solution or system structure. My role and status on these committees are similar to other members and did not create a power differential between the study participants and me.

Methodology

Participant Selection

The available population for participant selection in this study was approximately 850 instructional leaders and early childhood systems personnel, and educational leaders at the high school, community college, university, and state systems levels with specific knowledge of the current/future early childhood workforce and the policies and structures of early childhood career pathways. Participants were selected using purposeful sampling. Purposeful sampling is the primary sampling method employed in qualitative research. It is appropriate for this study because it allowed me to recruit participants with characteristics or experiences related to the research questions (Creswell, 2015; Ravitch & Carl, 2016).

To determine the personnel who met the criteria, participants were recruited using professional networking relationships and information publicly available on local school district and college websites. Membership lists of early childhood system partners participating in statewide advisory committees and taskforces were also utilized to recruit participants. Participants were asked to respond to an email invitation, and a consent form approved by the Walden University Institutional Review Board (IRB) was used to obtain consent from each participant. After obtaining consent, I scheduled virtual interviews at a time convenient for the participants. All the participants were employed in roles that allowed their involvement in the study, and no agency supervisors needed to provide permission for participants to engage in the study. Participants were assured that precautions would be taken to conceal their identities, so no negative consequences resulted from their participation in the study.

The number of participants recruited for this study was 12. Given the number of potential educational leaders and systems partners, there was little difficulty reaching the sample size. This sample size was appropriate for this study as qualitative samples must be large enough to confirm that the bulk of perceptions are discovered but not too large to be repetitive and redundant (Ravitch & Carl, 2016).

Instrumentation

In qualitative research, data are collected primarily through one of four methods: observations, interviews, documents, and audio-visual materials (Creswell, 2015). The primary data collection method for my research was semistructured interviews. For the qualitative interviews, I used a researcher-constructed interview protocol and a question

guide created to be used with the participants (Appendix A).

The literature review for this study indicated there was a need to research the ways systems, structures, and policies related to ECE career pathways might be improved (Cheng et al., 2018; Lees & Kennedy, 2017; Zinsser et al., 2019). The conceptual framework described the complex interactions between various components of systems and how the distinct system components and the whole of the parts impact individuals. The interview questions and protocol were designed to solicit feedback from early childhood systems personnel about the components of the early childhood system and ways career pathways might be improved.

To ensure content validity of the instrumentation, three professional subject matter experts in the state, who are engaged with the early childhood professional development system, were consulted on the appropriateness of the questions developed for the study. The subject matter experts were asked if the questions were ethically grounded and culturally appropriate for the southwestern state's early childhood workforce. Minor modifications to the interview protocol and questions were completed in response to the subject matter experts' feedback. The changes were incorporated in the documents submitted to the Walden University IRB. The qualitative interviews are the single data source for this study, and this data collection method was sufficient to answer the central research question and the additional related research questions (Creswell, 2015). The qualitative interview questions were designed to collect information about the two research questions. Table 1 displays each interview question with alignment to the research questions and constructs from the conceptual framework.

Table 1

Alignment of Interview Questions to Research Questions

Interview question	Research Question 1	Research Question 2
1. What are some factors that contribute to current and future educators obtaining the knowledge, skills, and professional dispositions necessary to enter the early childhood teaching workforce?	X	
2. What are the different roles of high schools, colleges, universities, and professional development providers in helping early childhood educators obtain necessary knowledge, skills, and dispositions?	X	
3. What are some ways to make college degree attainment more accessible and efficient for a diverse early childhood workforce?		X
4. What are some ways to make career pathways from high school through bachelor's degree completion more relevant to the needs of local communities?		X
5. Tell me about any challenges or barriers you are aware of regarding college policies or practices that are related to completing an associate degree in early childhood education. Describe ways the challenges could be resolved.		X
6. Tell me what you know about the transfer of associate level coursework into baccalaureate programs. Do you have any personal experience with the transfer process?		X
7. Tell me about any challenges (barriers) early childhood students may experience when they engage in the transfer process? Describe any actions, policy, or procedural changes that might help students overcome these challenges	X	X
8. Tell me your perspective about how current policies and regulations impact the early childhood professional development system?	X	
9: How does the structure of early childhood degree pathways (general education courses, developmental coursework, early childhood specific coursework) relate to degree completion? Describe any changes you think would be helpful.	X	
10. What are some ways that structures and policies related to early childhood education career pathways might be improved?		X
11. Tell me about any structural challenges that you perceive as barriers for the early childhood workforce. Describe ways to help reduce those challenges or barriers.		X
12. Tell me about any resources or supports you are aware of that faculty, advisors, or staff offer to support students in navigating the college system. What resources and supports could be added?	X	
13. Tell me about any resources or supports you are aware of that are offered through early childhood systems partners or community agencies. What about colleagues, workplace, and/or social networks?	X	
14. Describe strategies and supports that could help increase diversity and equity within the early education workforce. What about strategies to support bi-lingual students?	X	
15. Is there anything that we have not discussed that you would like to add?		

Procedures for Recruitment, Participation, and Data Collection

After receiving approval from the IRB, potential interview participants were identified, and personal emails were sent that included information about the purpose, ethical procedures, and methodology of the study. Participants were offered phone conversations to answer questions about the study or interview process.

After receiving a positive response to the initial recruitment email, follow-up emails were sent that included more detailed information about the study's goals, potential benefits or consequences of participation, the use of a software application on a mobile device for recording interviews, ethical safeguards, and what participants could expect during the interview. The consent form was also sent with the follow-up email and participants were asked to return the completed form and indicate their consent to participate via email. Once the signed informed consent forms were received, participants were contacted to schedule a convenient time for the 45-60 minute interview. Five of the initial respondents did not return their completed consent forms, so to achieve a sufficient sample size additional participants were recruited and assigned participant numbers. Given the constraints of conducting this research in the aftermath of the COVID-19 pandemic, participants were offered a virtual interview session over video conferencing software, a recorded phone interview, or a socially distanced in-person interview session that followed local public health protocols.

Interviews were conducted following the steps outlined in the approved interview protocol and question guide (Appendices A-B), and an audio recording was made of each interview. During the semi-structured interviews, efforts were made to ensure the

participants were comfortable with the questions asked, and they were informed that they could end participation at any time. The interview protocol was followed, and questions were asked one at a time and consistently asked in the order presented on the interview guide. As participants were asked the series of questions, they were given ample time to respond and were allowed and encouraged to lead the conversation. Participants were carefully observed for non-verbal communication and body language during the interviews to ensure they were at ease. To reduce the possibility of bias, care was taken not to steer or influence the direction of the responses. A software application on a mobile device was used to record the interviews, and hand-written notes were taken to ensure the perceptions and recommendations of the participants were accurately recorded and documented as presented.

After the interviews concluded, participants were debriefed and informed that once the data were transcribed, there would be an opportunity to review the transcripts for accuracy. Participants were asked if they had any questions about the interview process and were able to make clarifying comments. No follow-up interviews were necessary, but the participants' contact information was retained in case there was a need to clarify any information obtained in the interviews.

Data Analysis Plan

A data analysis plan for a qualitative procedure should result in descriptive statements and a narrative about the phenomenon that emerges from the data analysis (Creswell, 2015). The interviews were used to determine common perceptions and themes around ways early childhood career pathways in the state could be improved. A

thematic analysis of qualitative data requires the researcher to develop an in-depth understanding of the phenomenon being studied and the participant's experience with the phenomenon, so the written account resonates with people other than the researcher and applies to broader contexts (Creswell, 2015; Ravitch & Carl, 2016).

The software application used for recording interviews was also used to transcribe audio recordings into text files. The transcriptions were checked against the audio recordings, and once transcribed and organized, the transcripts were read multiple times. Notes were taken of the interesting comments, improvements, and suggestions that emerged in the responses to each question. After the transcriptions were completed and checked for accuracy by me, a summary was shared with each participant via email for member checking. All participants confirmed the transcript was a trustworthy summary of their interview. Member checking was used to ensure the participants were able to review the data, interpretations, and conclusions gathered and clarify their intentions, correct errors, and provide additional information if necessary (Creswell, 2015). Member checking also allowed participants to validate my interpretation of the responses given during the interview (Ravitch & Carl, 2016).

Data were coded with a priori, open, and axial codes and then thematically analyzed. The data were uploaded to Quirkos software program for further analysis, and the data were sorted with the assistance of the software (Quirkos, 2023). The codes that emerged were categorized based on thematic pairings, relationships to each other, and their relevance to each of the specific research questions (Saldaña, 2021). Connections between responses and categories were examined, leading to the development of theme

statements. The themes were crosschecked with the text of the interviews and double-checked to determine if there were similar ideas in multiple interviews. Through this process, some themes were eliminated or combined, and discrepant cases that ran counter to the themes were identified and addressed individually. Finally, the software program created tables to record the frequency and patterns in the reoccurrences of specific themes, and a summary table was developed to tabulate and present the results.

Trustworthiness

Four key elements of trustworthiness were established for qualitative research: credibility, transferability, dependability, and confirmability (Merriam & Tisdell, 2016). The construct of trustworthiness, or validity, is a strength of qualitative research and is related to whether the findings were accurate from the perspectives of the researcher, the participants, or the readers (Creswell, 2015).

Credibility

In qualitative research, credibility refers to whether the participant's perceptions of the findings of the study are accurately reflected by the researcher (Ravitch & Carl, 2016). Credibility, a parallel of internal validity, was established using peer review, member checking, and triangulation. Qualitative data was triangulated by comparing participants perceptions from different points of view. Data for this study came from interviews with participants who serve in many roles within the early childhood system. The variation in roles and experiences of the purposive sample of participants provided multiple perceptions about the research questions. These perceptions were documented, identified, coded, and then patterns and common themes were categorized and analyzed.

Triangulating the data also helped reduce systematic bias and possible distortion during data analysis and increased credibility and quality (Patton, 2014).

Another aspect of credibility used to support the validity of the results in this study was member checking. According to Patton (2014), "researchers and evaluators can learn a great deal about the accuracy, completeness, fairness and perceived validity of their data analysis by having the people described in that analysis react to what is described and concluded" (p. 662). Member checks were implemented after the interviews to allow participants to review the data analysis and confirm the data collected were accurate, complete, and fair.

Transferability

Transferability is established when others who read a study can identify that the qualitative research findings apply to other environments, contexts, populations, and settings (Cypress, 2017; Yin, 2016). The semi-structured interviews in this study contained open-ended questions that allowed participants to provide rich, detailed responses. Transferability was supported by accurately transcribing and sharing the participants' responses and creating thick descriptions. The descriptions provided contextual information so readers can understand the problem being presented and draw their interpretations about meanings and significance (Patton, 2014). The transferability of the results in this study may promote changes to the systems, structures, and policies related to early childhood degree pathways and support positive social change for the early childhood workforce.

Dependability

Dependability in qualitative research is related to the reliability and consistency of the research design and how the data collection processes are aligned with the research problem and purpose of the study (Ravitch & Carl, 2016). Dependability was established through documentation of the research procedures and detailed explanations of how data are collected and analyzed. For this study, the interview protocol and question guide (Appendices A-B) were utilized to create consistency in the interview process, and dependability in the research design was supported by the development of a detailed data collection log. Documentation included reflective notes to control for bias and to record any ethical concerns.

Confirmability

Confirmability, a parallel of objectivity in quantitative research, was established by creating an audit trail and a data collection log of clear and concise records of the data collected. A Microsoft Excel spreadsheet was used for the audit trail and included the notes, actions, and data collected. The procedures used for checking and rechecking the data throughout the study, the data results, interpretations, and recommendations were documented in the notes and data collection log. The audit trail allows other researchers to review the information and confirm that the study would be corroborated if conducted again using the same parameters. My clear, detailed notes and organized records supported the objectivity of the research and assured there was no researcher bias (Merriam & Tisdell, 2016).

Ethical Procedures

The treatment of human subjects in this research strictly followed the guidelines and protocols prescribed by the Walden University IRB.

All materials for the study, including the approved proposal, the interview protocol and questions, the recruitment flyer to be sent via email, solicitation email, and consent forms, were submitted to the IRB before they were deployed. I received approval to conduct the study from the Walden University IRB, approval #06-10-22-0409137. Any ethical concerns related to the recruitment materials and processes, data collection, participation or withdrawal of participants, or potential bias were quickly and confidentially addressed by Walden University personnel and me.

All participants completed and signed consent forms and were reminded multiple times that their participation was entirely voluntary, and they could withdraw at any time. There was no attempt to exercise any authority or control over the participants, and there were no offers of incentives or reimbursement for participation in the study. During the interview process, I made the participants feel comfortable and set a tone for the interview as a conversation between professionals.

I anticipated that participants might feel uncomfortable speaking about the potential barriers to degree pathways that their institutional policies may have created. I endeavored to relieve this potential concern by informing the participants that in a complex system structure like the state's early childhood professional development system, no one policy or individual was responsible for the outcome of the entire system. If participants expressed concern or interest, they were provided with information from

the initial research about the systems, structures, and policies related to early childhood degree pathways in Chapter 2.

Confidentiality was strictly maintained throughout the entire process. Participants were assigned an identification number, and no other identifying information was shared. The data collected, including audio files, digital transcriptions, and hand-written notes, are kept in a locked file that belongs to me. The electronic records are kept on my personal, password-protected computer, and all data and records will be destroyed 5 years after the completion of the study.

Summary

This chapter discussed all aspects of this study's research methods and data collection process. The research design and rationale were presented along with the methodology used to recruit and select the participants, the formulation of the data collection instrument, and the methods used to collect and analyze the data. Additionally, the chapter included a summary of how trustworthiness and ethical considerations were addressed in the study.

Chapter 3 described the research method for the study, a data analysis plan, and measures to assure trustworthiness and ethical procedures. Chapter 4 analyzes the results and also contains information about the setting for the study, the participant demographics, and personal and external conditions that influenced the participant's experiences at the time of the study. Methods used for gathering, recording, and transcribing the data are provided and the circumstances encountered in data collection are described along with information about how data were coded and analyzed. The

chapter concludes with a review of the results, evidence of trustworthiness, and a final summary. Chapter 5 includes an interpretation of the results along with the limitations of the study. The chapter also describes recommendations for future studies, potential implications for positive social change, and recommended next steps.

Chapter 4: Results

The purpose of this qualitative study was to examine ECE career pathways by investigating the perceptions of educational personnel in one southwestern state regarding the current systems, structures, and polices that are related to career pathways through high school, community college, and university levels. The central research question that informed the methodology for this study was "What are the perceptions of early childhood systems partners who influence the structures and policies that effect the creation of early childhood degree pathways from the high school to the baccalaureate level on ways career pathways could be improved?" The qualitative research questions were:

- Research Question 1: What are the perceptions of early childhood systems personnel at the high school, community college, university, and state systems levels on the effectiveness of the systems, structures, and policies that are related to career pathways for early childhood educators?
- Research Question 2: What are the perceptions of early childhood systems personnel at the high school, community college, university, and state systems levels on ways career pathways are related to degree completion and shortages of qualified early childhood educators?

The research questions were designed to explore the perceptions of early childhood systems partners on the effectiveness of the systems, structures, and policies that are related to career pathways for early childhood educators, and the ways career pathways are related to degree completion and shortages of qualified early childhood educators. I

investigated the perceptions of early childhood system partners to understand better how equity and access, professional milestones and curricula, coursework and field experiences, community partnerships, and transfer pathways contribute to future educators obtaining the knowledge, skills, dispositions, and credentials necessary to enter the early childhood teaching workforce more efficiently (McLean et al. 2023; Xu et al., 2018).

This chapter details the setting for data collection and the conditions that may have influenced the participants experiences at the time of the study. Participant demographics are presented along with the location and duration of data collection and a description of circumstances of how the data were recorded. Next, there is a description of the process used to analyze the data collected and the specific codes, categories, and themes that emerged for the data. The results for each research question are explored, and data are presented to support each finding. Then evidence of trustworthiness is presented along with a summary of the answers to each of the research questions.

Setting

The data for this basic qualitative study were gathered through individual, in-depth, semistructured, qualitative interviews. Questions were organized into distinct categories to investigate participants' perceptions regarding career pathways. These categories were based on central themes identified in the literature review and conceptual framework. The themes were knowledge, skills, and dispositions; degree attainment; transferability of coursework; structures and policies; and resources and supports. The qualitative interviews were the single data source for this study, and this data collection

method was sufficient to answer the central research question and the additional related research questions (Creswell, 2015).

The data collected from participant interviews provided information about the perceptions of early childhood systems partners on degree pathways including topics related to the structures and policies, challenges and barriers, and resources and supports available to support degree completion. No unusual circumstances occurred during data collection but throughout the interview process many participants described how the COVID-19 pandemic had affected them on a personal and organizational level.

The study included purposive sample of 12 participants from the southwestern who were actively engaged in the state's early childhood professional development system. Participants were carefully chosen to ensure their relevance to the research and all participants were responsible for, or familiar with, the structures and polices related to career pathways. Among the participants, there were representatives from various educational institutions, including three from high schools, three from community colleges, 2 from universities, and 4 from the state systems level. One of the participants from the state systems level also served as an adjunct faculty member at a community college, and another participant from the state systems level also had experience with high school programs. In terms of gender distribution, eleven of the participants were female, and one was male. The participants came from diverse backgrounds and were chosen to represent both rural and urban communities across the southwestern state, offering a diverse range of perceptions on community needs and resources.

Two interview questions were specifically designed to explore perceptions of the

transfer process from the associate to baccalaureate level, so participants were asked about their own personal experiences with the transfer process. Out of the 12 participants, seven individuals shared that they had personal experience with the transfer process, and five participants also highlighted their involvement in assisting others through the transfer process. An overview of the individual participant demographic data and a summary of the participant roles and years of experience with the early childhood professional development system are presented in Tables 2 and 3.

Table 2

Individual Participant Demographic Information

Participant ID#	Role in the Field	Years of Experience	Personal Experience with Transfer	Community Characteristic
P1	Community College	46	Yes	Urban
P2	State Systems	5	Yes	Urban
P3	Community College	8	Yes	Rural
P4	State Systems	19	No	Urban
P5	State Systems	30	Yes	Urban
P6	High School	11	No	Urban
P7	Community College	36	Yes	Urban
P8	High School	12	Yes	Rural
P9	High School	8	Yes	Rural
P10	State Systems	22	No	Rural
P11	University	33	No	Urban
P12	University	21	No	Urban

Table 3 describes the range and average number of years of experience participants had with the early childhood professional development system. There was a wide range of years of experience with the professional development system with the newest participant having five years of experience and the most experience being 46 years.

Table 3

Summary of Demographic Information and Years of Experience

Role in the Field	Number of Participants	Years of Experience Range	Years of Experience Average
High School	3	8-12	10
Community College	3	8- 46	30
University	2	21-33	27
State Systems Level	4	5-30	19

Data Collection

In this qualitative study, I conducted individual virtual interviews with 12 early childhood systems personnel. After receiving IRB approval, I recruited prospective participants through my Walden email account using invitations that included information from the recruitment flyer reviewed and approved by the IRB. During this time, I responded to questions from participants regarding the study via email and I also resent the recruitment emails to try to increase participation. After initial group of participants were selected, I obtained signed consent forms from each participant via email and participants either added their typed name to the consent form; printed, signed, and scanned it back to me; or replied to the email stating "I consent" prior to participating in the study. Interviews were conducted with participants over a 7-month period. Participant IDs were assigned to each participant to maintain confidentiality. Scheduling interviews was challenging and took longer than expected because many participants work in academic settings and the interviews conflicted with the busy start of the academic year. The first 10 interviews were completed over a 3-month period, with two additional interviews added later to include participants familiar with high school

settings.

Interviews were conducted and recorded using Google Meet video conferencing and were also recorded by the Otter audio recording and transcription application on a mobile device. I completed one practice interview with a colleague so I could test out the recording software and Otter application. The practice interview helped me get a feel for the process and how to pace the questions and facilitate the interviews. The virtual video conferencing format enabled participants to select a time and location that was convenient and confidential, and interviews were scheduled at a variety of times including lunch breaks and late evenings to accommodate participant schedules. There were two participants who had technical difficulties and were not able to stay connected to the Google Meet, so the interviews were finished over the phone and continuously audio recorded using the Otter application. I did not require participants to strictly adhere to time restraints, and most interviews lasted 45-60 minutes. One interview lasted almost two hours, and another interview was only 35 minutes. During the interview, participants described their personal experiences and described their experiences with individual students, colleagues or cohort groups. At the conclusion of each interview, I thanked participants for their time and participation I reminded them I would send a summary of the interview for their review.

To maintain confidentiality, I conducted the interviews in an office behind closed doors. I adopted a reflective approach during the interviews and data collection to minimize bias and avoid subjective interpretations of the participants' unique experiences. This approach ensured that I accurately represented their perceptions and

experiences. During the interviews I remained present with the participants and took handwritten notes when necessary.

After each interview I used the text files created by the Otter application to generate a digital transcription in Microsoft Word. Editing the digital transcriptions was more time consuming than anticipated, and in some cases I had to go back to review the video recordings to correct the transcripts. I used the handwritten notes I took during the interviews as I reviewed the recorded video conference sessions to be sure each transcription was an accurate reflection of the interview. I also compiled my notes about interview scheduling and completion in a Microsoft Excel data collection log.

The semistructured interviews allowed me to gather in-depth insights, allowing participants to share their experiences and perspectives in their own words. After I had completed at least two interviews with each type of systems partner (high school, college, university, and state systems level), I began to hear similar comments from participants. At that point, I believed I had reached the point where the qualitative sample was large enough to confirm that the bulk of perceptions were discovered without being repetitive and redundant (Ravitch & Carl, 2016).

Data Analysis

Qualitative data analysis requires the researcher to focus on what the participants communicate within the context of their own life experiences (Ravitch & Carl, 2016). I began my data analysis by assigning each transcript a unique identifier, consisting of the letter “P” followed by a number to protect participants’ identities. This system allowed me to maintain anonymity while accurately attributing direct quotes and responses in the

data analysis and results sections. Next, I printed each electronic transcript generated by the software application and manually corrected typographical errors and content issues. I removed phrases duplicated by the software, deleted common speech interrupters (e.g., "you know," "so," "okay"), and eliminated unrelated comments that disrupted the flow of participants' responses. I also made notes in the margins and used these annotated paper copies to create a clean, corrected version of each electronic transcript. I then sent a summary version of the cleaned transcripts to each participant for member checking and asked them to confirm the accuracy and trustworthiness of the summary (Ratvitch & Carl, 2016). Participants were also given the opportunity to make comments or corrections. All participants confirmed the accuracy of their transcripts, only one participant added additional information to clarify their responses.

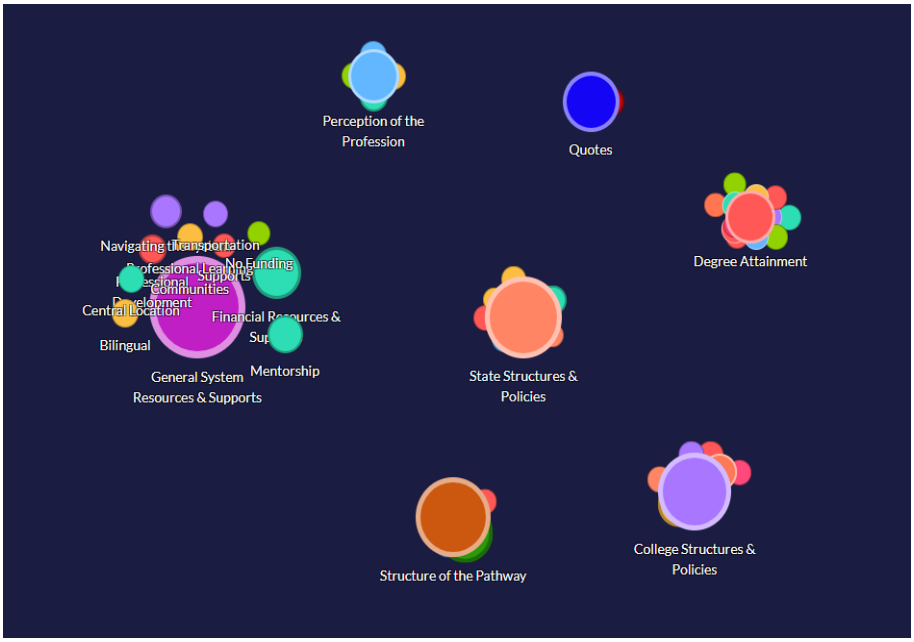
I used my clean paper transcripts to begin my first cycle of open coding. I read and re-read the transcripts to immerse myself in the data and I also listened to the transcripts and watched the video recordings when needed to confirm the transcriptions were correct. Through this process, I manually identified and highlighted initial in vivo codes using the specific terms, phrases, or expressions directly used by the participants during interviews. I highlighted words, phrases, and in some instances full sentences that were surprising, that stood out or were repeated by multiple participants. Some terms or phrases that were mentioned repeatedly such as: money, cohort groups, low wages, bachelor's scholarship funding, diverse voices, family obligations, transfer process, were noted and recorded on a Microsoft Excel data collection log.

The initial codes and data identified in the transcripts were uploaded into the

Quirkos software program for further analysis, providing a more structured approach to organizing the data. Manually coded data were re-examined and re-coded with the help of the software to ensure consistency and accuracy in the coding process. Quirkos allowed me to visually manipulate and refine the data by moving chunks of coded text between categories, helping to identify patterns and relationships. This process made it easier to explore alternative ways of grouping the data and ultimately determine the most meaningful alignment.

Figure 2

Results of Quirkos Data Analysis Process



I examined the connections between participant responses, identifying categories of codes and developing working theme statements. In some cases, responses were coded under multiple subthemes, which were then cross-checked with the interview transcripts

and double-checked for proper alignment with specific categories. The codes that emerged from this iterative process were organized according to their thematic relationships and relevance to and the research questions (Saldaña, 2021). As the themes evolved, some were either eliminated or merged, and there were no discrepant cases that contradicted the identified themes. This thorough process of coding and thematic analysis provided a framework for understanding the data, the clear thematic patterns, categories, and themes that emerged in the data.

The process of coding all 12 interviews produced 58 open codes and most of the codes overlapped among the interviews, and as a result 31 initial categories emerged. The codes identified through this intentional approach were carefully and objectively sorted into categories. This was an iterative process that required many revisions and included the use of physical note cards sorted and re-sorted into different categories several times. After careful reflection and completing the coding process, and labeling and organizing the data to find patterns and themes I consolidated these categories and decided on 6 major themes (Ratvich & Carl, 2016). There were no discrepant cases in this study.

Each theme included sub-themes that represented the essential meanings of the responses of the participants with an intentional focus on the personal and professional experiences described by each participant (Saldaña, 2021). The 6 themes were: (1) Streamlining State Policies, (2) College Structures, (3) Resources and Supports, (4) Perception of the Profession, (5) Structure of the Pathways, (6) Factors Related to Degree Completion. Each theme included several categories that reveal the multiple dimensions of the participants unique responses. Tables 4 and 5 display examples of the initial open

codes from the data aligned with categories and excerpts from the transcripts that are aligned with the overarching themes that emerged for each research question (Saldaña, 2021).

Table 4

Alignment of Codes, Categories, Themes, and Excerpts to Research Question 1

Open Codes	Categories	Excerpts from Transcripts	Themes
Policies Communication Hoop jumping Time delays Confusing Unclear Community input Streamline Same page Systems Challenges	Communication among state agencies Communication with the community Streamlining employment requirements Professional development system	P#4 "There are like eight different ways to get your certification" P#5 "I don't think there is enough knowledge of each other's policies… there's not enough sharing of knowledge and information" P#2 "I don't think that our state agencies are always the best at communicating with each other in terms of duplication." P# 1,2,4,6 "It's a lot of hoop jumping"	Streamlining State Policies
Access/accessibility Process barriers Cohorts Prior learning College policies Communication Seamless Alternate pathways	Access and inclusivity Registration and admissions Utilize cohorts Building on prior learning experience Listening to workforce needs	P#4 "I wish that the institutes of higher ed recognized time in the field as experience" P#5 "Structural changes are tricky because there are so many entities involved" P#2 "A cohort program, and that experience was so rich and beneficial for me… There was a sense of inclusion"	College Structures
Mentoring Networking Organizations A person to help Professional development Scholarships Bachelor's scholarships Resources No money Debt relief	Professional organizations Mentoring One central location for career information Financial resources and supports A person to help navigate the system	P#4 "We just send people out to sink or swim, and then we wonder why the average lifespan of a teacher is like five years" P#7 "They are wanting to attain a bachelor's degree, and we tried to find resources to be able to support that and it's really complex" P# 5 "Professional Development is that continuation of the knowledge… you need to keep moving forward" P# 4 "I wish there was and early childhood person…whose job it is to know all the in's and out's of how to support educators"	Resources and Supports
Wages Low requirements Administrator support Marketing Website Belonging Diversity	Low wages Low requirements to enter the field Creating a career pipeline Marketing campaign Valuing diversity within the profession Exposure to roles for related service providers	P#4 "Market the job as a great job. Start talking about the profession in a positive way to make others want to do it too" P#2 "State's regulatory bodies have such low standards for what will be accepted [for training hours]… Quality isn't necessarily considered, quantity is and that's the policy." P#2 "We want to professionalize the field but we are not paying a livable wage or giving them insurance or benefits. I don't know how to structurally change that"	Perception of the Profession

Table 5

Alignment of Codes, Categories, Themes, and Excerpts to Research Question 2

Open Codes	Categories	Excerpts from Transcripts	Themes
General education Math Time Barriers Standards Exploration CTE Internships Field experiences Work experience	Transfer pathways and policies Field experience General education and developmental education courses Teacher certification Clearly identifying the pathways Role of high school CTE programs	P#4 "I think the high schools are a really great opportunity that we're not taking very much advantage of… the CTE programs, especially the educator ones, aren't in every high school yet." P#11 "There's no longer a practicum in my course. That was a barrier for many of them, they could not work and get those practicum hours completed, so I switched to an internship to where they're working." P#2 "I think it's less overwhelming to take those classes in the area that you're passionate about… But those Gen Ed's can be big and overwhelming and I don't think we can get away from that."	Structure of the Pathways
Advising Intrinsic motivation Technology Family Other languages Pathway Child care Who to talk to Wrong classes Types of degrees Right person	Personal characteristics Family obligations English language learners Technology challenges Individualized advising and support	P#12 "Providing content in their language and opportunities to submit work in that language would be excellent." P#5 "Having more understanding of individuals… What other things do they have going on before you decide that you're going to take 12 credits and then not be successful." P#1 "Technology and technology awareness is an issue and because most of us have moved to totally online."	Factors Related to Degree Completion

Results

The purpose of this qualitative study was to examine ECE career pathways by investigating the perceptions of educational personnel in one southwestern state regarding the current systems, structures, and polices that are related to career pathways through high school, community college, and university levels. The results of the study revealed themes that are aligned to the research questions and conceptual framework for the study. Four themes relating to career pathways including state policies, college structures,

resources and supports, and perception of the profession, and 2 themes relating to degree completion and the shortage of qualitied early childhood teachers including the structure of the pathways and factors related to degree completion. The conceptual framework for the study was systems theory which details the complex interactions between various components of systems and how individuals are impacted by both the distinct system components and the whole of the parts. The conceptual framework was supported by participants' responses. The aim of the study was to investigate the ways early childhood systems, structures, and policies related to career pathways could be improved. The following research questions informed the study:

- Research Question 1: What are the perceptions of early childhood systems personnel at the high school, community college, university, and state systems levels on the effectiveness of the systems, structures, and policies that are related to career pathways for early childhood educators?
- Research Question 2: What are the perceptions of early childhood systems personnel at the high school, community college, university, and state systems levels on ways career pathways are related to degree completion and shortages of qualified early childhood educators?

The themes of streamlining state policies, college structures, resources and supports, and perception of the profession were related to Research Question 1. Themes related to Research Question 2 were structure of the pathways and factors related to degree completion.

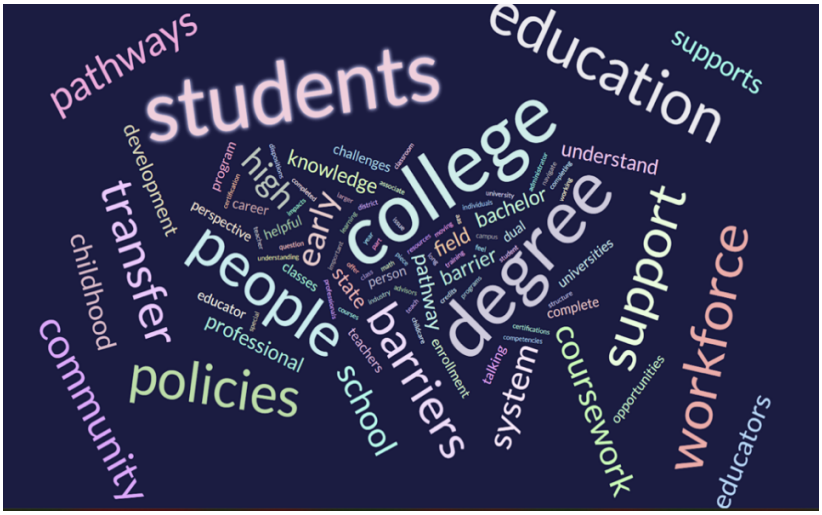
The results from the data analysis process produced multiple themes aligned with

the research question and conceptual framework of the study. My research processes were based on prior research findings from the literature review including the knowledge, skills and dispositions required for effective teaching, policies related to degree attainment, aspects of the transfer process, and the need for specialized resources and supports. I then applied the components of the conceptual framework and systems theory which asserts education systems function relative to the effectiveness of each of the components, as well as the whole of the parts (Senge, 2006). Using this lens, data were also sorted according to the systems, policies, and structures related to degree pathways at the high school, community college, and university levels.

Figure 3 highlights the prevalence of key words and phrases shared by the participants in the interviews. The size of each word in the word cloud corresponds to the number of times each word was found in the interview transcripts. Each theme is then presented along with the corresponding theme statements, sub-themes, and the corresponding results (Creswell, 2015).

Figure 3

Word Cloud of Key Words from Participants



Theme 1: Streamlining State Policies

Streamlining the policies and structures established by state regulatory agencies and improving communication to address barriers to employment and promote diversity within the workforce.

Communication Among State Agencies

Participants described the "fragmented and piecemeal" nature of the policies and regulations within the state and described the need for improved collaboration and communication between state agencies, the quality rating system, professional development organizations, and other entities. Participant 5 described that a lack of information-sharing and coordination that negatively impacts the workforce, leading to duplication of efforts, inefficiencies, and potentially wasted resources. Participant 2 stated "I don't think that our state agencies are always the best at communicating with each other in terms of coordination and duplication [of requirements]."

When asked about how the current state policies and regulations impact the professional development system Participant 8 stated,

> I don't know a lot about it, but what I do know is it's pretty piecemeal, and there's not one place to go to know about what the policies and regulations are overall. And so, depending on who you talk to you, and where you go, you might get a little bit different viewpoint of an answer.

Participants described the need for greater standardization and clarity around the requirements for various positions roles as a potential way to reduce barriers to enter the field. Participant 1 said "I think about regulations in our state and who's required to do what, and what's required of our workforce. They're so all over the map. Sometimes that's a huge hindrance to our industry because there's not an easy ebb and flow across our systems because of policies and regulations." Participant 5 added requirements are "very different depending on the role" and Participant 3 added that it should be clear regardless of whether the role is entry level and only requires basic training requirements for child care centers in private industry, or teacher qualifications for Head Start programs, or certifications for teachers in school districts. Participant 8 stated "it should be clear what you need to have to work in which positions, and then streamlining that [process] statewide."

Participants described a need for greater collaboration among state agencies to optimize their collective impact on the policies and regulations that govern the early childhood professional development system. Participant 5 stated "I don't think that there's enough sharing of knowledge and information between the different entities to

have a positive effect on our workforce. I think that if anything, it has a negative influence on our workforce because people aren't necessarily on the same page." Some participants even suggested combining multiple agencies into a single entity, as observed in other states, could enhance productivity, and create a more streamlined and systemic approach to addressing industry challenges.

Communication with the Community

Participants described challenges navigating various policies at the federal, state, and local levels, and expressed a need for increased transparency and understanding of the policies governing the early childhood professional development system, especially among educators, leaders, and child care center directors. Participant 8 identified that "there needs to be more transparency and more advertising on what those policies are. I'm not even sure what that looks like. I'll tell you; my students really have very little understanding of that- even though I've tried."

Participants described a need for greater inclusivity in the policy-making processes and amplifying the voices of the educators and leaders impacted by regulations, and a need to create effective systems for collecting and utilizing educator and stakeholder feedback. This result is in alignment with the recommendations of the NAEYC Unifying Framework for the Early Childhood Profession. (NAEYC, 2020c.) Participant 3 stated there is a "critical need" to listen to the voices of diverse educators. Participants 3, 4, and 12 identified the need for a centralized resource where individuals can access comprehensive information about state policies and regulations.

Streamlining Employment Requirements

Participants described several barriers to employment within the field. These barriers included the complex hiring process for educators that is influenced by licensing regulations, school district procedures, and state and federal requirements. Participant 4 stated that there were "so many state policies it is almost overwhelming" and described the need for clarity around the many requirements for educators to enter classrooms. One participant who works at the high school level stated:

> From a supervisor of a child care program perspective, [state licensing requirements] impact the ability to quickly hire staff members. It is tricky. I am experiencing that now with some of my students who are anxious to get into a program. With all the hoops you have to jump through to get hired, which all these regulations are there to keep children safe, so I don't discount that, but when you're a 16-year-old who needs income and you can go and work at Wendy's and get hired on the spot to start work on Saturday, or you can choose to work [in early childhood] where you might really enjoy it, but it takes a month or month and a half to get actually through the interview process and be hired. Yeah, that becomes a bit of an obstacle, I think. (Participant 6).

Participants described that "policies don't always align" and there are "too many hoops to jump" and "state licensing can make field experience challenging" and processes that are necessary and meant to safeguard children such as needed fingerprint clearances "take too long."

Another participant who works primarily with high school career and technical

education students highlighted the age-related barriers for high school students seeking employment opportunities in the field creates missed opportunities for students to gain experience in teaching and para-professional roles within the public school system. Participant 9 stated that there is a significant shortage of teachers and paraprofessionals in the classrooms in their school district, and those "enrolled in ECE programs at the high school have more experience and education that someone coming in off the street" but all the requirements make it hard for them to put students into the classrooms. Participant 8 stated "when we are talking about the high school level there are so many regulations with working with children, that you have to be 18, you have to be fingerprinted, and our high school students don't qualify to even do that."

Professional Development System

Participants identified challenges with the current professional development framework for the state. Despite some existing systems and professional development strategies to support the state's quality rating system and address federal pre-service training requirements, participants described the need for these systems and strategies to be better integrated into policy. Participants also noted that state agencies should work together to ensure that professional development offerings are robust, competency-based, and aligned with broader educational pathways. Participant 10 described how the existing professional development system is inconsistent in the implementation of state standards. The minimal qualifications required to be considered a professional development provider allows individuals without adequate qualifications to deliver training and technical assistance which creates a fragmented system that does not provide a consistent

and high-quality level of training. Participant 4 described how intentional mentoring, and on-the-job training could elevate the quality of professional development and emphasized the need to set high standards for professional development providers without compromising accessibility and access of the training provided.

Participants described the intricate relationship between state policies, workforce requirements, and the practical implementation of regulations into practice. Results from interviews support the theoretical framework of this study that early childhood systems, policies and structures drive the development, quality, and stability of the early childhood workforce. Senge (2006) asserted that "systemic structure is concerned with the key interrelationships [and variables] that influence behavior over time" (p. 44) and "structure produces behavior and changing underlying structures can produce different patterns of behavior" (p. 53).

Theme 2: College Structures

College structures, policies, and requirements can create hurdles that reduce access and inclusivity and impact degree completion.

Access and Inclusivity

Participants noted the structures and policies created by colleges and universities can create processes that are difficult to navigate, and requirements related to enrollment, registration, and advising are especially challenging for first generation college students and bilingual students. Six participants described how the technical skills required to manage college communications, learning management systems, and other technology processes can be challenging for many students, including older students with limited

technical skills and students who do not have personal internet access.

College registration and admissions processes were highlighted as a barrier. Participants described the challenges faced by high school students transitioning to college and the difficulties some students encounter in understanding and navigating the complex college systems. Participant 8 described the lack of familiarity with higher education terms for processes like enrollment and application, even among high school seniors, and expressed the need for additional education for these students. Participants described the potential barriers to accessibility and degree completion within higher education institutions and described the need for changes to streamline processes and enhance transparency to ensure a more inclusive and easier to navigate experience. This aligns with the statement by NAEYC (2009) that "cost, location, scheduling, or students' previous educational experiences can impede access to postsecondary education."

Utilize Cohorts

One strategy participants identified to make college degree attainment more accessible for a diverse early childhood workforce was to utilize cohort groups. Seven participants identified cohorts as a strategy to support access to resources and peer support. Participant 2 expressed a strong belief in the value of early childhood degree programs that are integrated within an early childhood program and highlighted the value of completing a degree program alongside colleagues and mentors. Participants described how cohorts foster a sense of community and increase student persistence and degree completion, especially for bilingual students and those without a strong support system at home. "To go through a degree program as a cohort and embed that in your work… that

instructor very much sees that community and their needs" (Participant 2).

Findings also in this theme support research by Gist, et al. (2019) that describes the concept of Community Cultural Wealth which views the diverse knowledge, skills, and experiences that people of color bring to teacher education as valuable assets. These assets can be nurtured through support structures in key areas including academic, social, financial, and linguistic. Examples of these included tutoring and test prep workshops, flexible time frames, and instruction provided in small cohorts. Social supports such as counseling, mentorship, and release time; and financial supports including scholarships, child care, and support for additional fees such as exams and certification applications (Gist, et al., 2019).

Participant 3 explained the challenges with utilizing cohort groups and offering classes for small groups or individual students, particularly in rural communities where it is difficult to form and maintain organized cohorts or achieve necessary enrollment numbers. Participant 3 also described one strategy commonly being utilized to address low enrollment and offer flexible class schedules for diverse student populations is shifting class formats to online or remote learning, which may not be suitable for all students or instructors. Participant 11 also described a recent decision at their institution to provide a choice between full-time and part-time enrollment and to consider different instructional modalities to cater to a diverse student population. Multiple participants discussed the value of cohort groups for addressing challenging academic subjects like math and science (Ültay & Ültay, 2020), and other general education courses, and the effectiveness of collaborative learning in overcoming hurdles and achieving success.

Building on Prior Learning and Experience

Prior Learning Assessment which is a college practice of providing transcripted college credit for completed credentials or other forms of work experience, was highlighted by Participants 1, 3, and 4 as a potential strategy to acknowledge and value the practical expertise gained by individuals in the field. Participant 7, who works at the community college level, emphasized the importance of establishing stronger partnerships with professional development agencies to ensure seamless recognition of skills and credentials acquired through high quality professional development programs. Participant 4 discussed the idea of allowing waivers for student teaching if there is substantial prior experience. Participants stressed that these strategies, if implemented effectively, could facilitate degree completion and provide due credit to individuals who bring valuable real-world experience to formal education settings.

Listening to Workforce Needs

Participant 10 emphasized the role of community colleges as trusted anchors within communities and serve as a go-to source for individuals navigating career pathways. “Most community colleges are grounded and rooted in a community that people know as the go-to source. And a lot of those [college] employees stay in those roles, so they become these trusted anchors in a community to help with the ‘what do I want to be when I grow up’ that many students experience” (Participant 10). Participant 1 noted “with the variety of ways our community colleges and universities offer opportunities for students, I feel like we’re doing everything we possibly can to try to make it easy and make [classes] at a time when they can attend.” Participant 1 also

highlighted the need to make coursework relevant to student's current work or their aspirations.

Other participants expressed concerns about the effectiveness of higher education in preparing students for the workforce, emphasizing the need for a paradigm shift to better align educational practices with the rapidly changing world. One participant who works in a university setting noted,

> I think maybe we should have more people at the table who represent the workforce so the directors, and administrators in the community locations that are going to be hiring our graduates are giving us some feedback on what skills they want their teachers to have so that we make sure we incorporate them into our program. By not being at the table, and having these conversations with us, I don't know that we are creating people for their workforce. We should have their input (Participant 11).

When asked about ways to make career pathways from high school through bachelor's degree completion more relevant to the needs of local communities, 7 Participants stated that there is a need for higher education institutions to seek community and provider input and five participants described the need for colleges and universities to better communicate with each other.

> The institutes of higher education need to be asking the people of the community what their needs are, and I don't think in most cases that they do that right now. I think they set their coursework and their timeframes according to what works for them, and not what works for the people in the community. And I think that the

> first step is actually getting away from themselves and asking the community what the community wants and needs (Participant 5).

Participants expressed concern regarding the alignment the programs of study between community colleges and universities, and suggested that improved communication between higher education institutions could address this issue. A participant who works at the state systems level explained,

> I don't know how much the university and the community colleges actually talk about the collective goal of seeing human beings, regardless of how old they are when they enter into higher education, [and consider] how do we work together so that everybody gets the win-win. Particularly when you're seeing declining numbers in completing degrees or pursuing degrees (Participant 10).

Participants identified open communication, collaboration, and flexibility between community colleges and universities as strategies to enhance career pathways and address workforce needs more effectively.

Theme 3: Resources and Supports

Access to general resources and supports enables educators to navigate career pathways more efficiently and remain engaged in the field.

Professional Organizations and Mentoring

Student and professional organizations play an important role in supporting educators as they navigate early childhood career pathways. All the participants who work in high school programs shared the value of Career and Technical Student Organizations in keeping students engaged in the pathway and learning critical leadership

and academic skills. Participant 2 highlighted the positive impact of a particular student organization in the state which provided students with support, accountability, and opportunities for leadership. Students who actively engage in such organizations are more likely to advance their careers and treat ECE as a profession. Lees and Kennedy (2017) describe the "mutually beneficial partnerships" that involve community stakeholders and practicing professionals and how social interactions within these organizations foster personal growth and professional development.

Participant 5 expressed concern over the lack of funding and support for student organizations like the student organization in the state which unfortunately disappeared. They emphasized the need for dedicated staff positions within educational institutions to support and inform students about available organizations and career pathways. The scarcity of funding and resources in the field of ECE poses a significant barrier to creating and sustaining these vital support systems. Participant 5 stressed the importance of finding funding to hire staff who possess expertise in equity, inclusion, and diversity, as this expertise can provide valuable support and alternative perspectives for students. Participant 4 shared their wish for a residency opportunity for new teachers to continue to be mentored beyond being a student teacher, so they are not "thrown into a classroom of 40 students" without additional support. Participants acknowledged the critical role that funding plays in ensuring the availability of knowledgeable support staff and resources. Participant 5 emphasized that individuals and organizations cannot provide these services for free and stressed the need to find sustainable funding solutions. Without adequate funding, it becomes challenging to establish and maintain the necessary support

structures for educators and students alike.

One Central Location for Career Information

Early childhood degree pathways are difficult to navigate and there is confusion about what the different career pathways are and the individual roles available for educators. Participant 5 described the concept of a centralized database that would consolidate information about career pathways, scholarships, and other resources available for the field. They highlighted the current challenge of navigating multiple scholarship websites, which can be overwhelming for students.

Participant 5 also proposed the idea of colleges having access to a shared database that encompasses all available scholarships within the state and specific areas. This centralized resource would enable colleges to easily access and share scholarship information with students on a comprehensive and user-friendly platform. Participant 5 described this idea as an "ambitious and idealistic and pie-in-the-sky dream." Participant 9, a high school teacher stated, "There's not a great deal of marketing for the industry, so regardless of the pathway students choose, if there's nobody out there really marketing and recruiting them, to attract them to it, then it's a good chance it's not going to happen."

Financial Resources and Supports

The state has multiple statewide scholarship programs for early childhood educators to support the attainment of workforce credentials, college certificates and associate degrees. All the participants were aware of this funding, however, the need for additional financial resources and supports was identified as a barrier by all the

participants. Eleven of the 12 participants specifically identified the need for bachelor's scholarships. Participants also described the lack of funding for the entire continuum of early childhood education, in particular there is a gap in resources available for educators who work with children birth to age three.

Participants 9 and 11 discussed the need for fair wages in internships and apprenticeships to ensure students are paid during their required practicum experiences and acknowledging their skills and contributions to the classroom. Multiple participants highlighted apprenticeship programs as a potential solution to providing students with varied experiences within the early childhood industry. Participant 1 discussed how these opportunities could expose students not only to classroom settings but also to administrative, managerial, and policy-making roles to support a comprehensive understanding of the industry and additional potential career pathways.

A Person to Help Navigate the System

Advising and career counseling are elements that are repeatedly shown in the literature to support the successful preparation of a diverse early childhood workforce (Xu et.al, 2018), and research by Gardner, Melnick, Meloy, & Barajas (2019) further indicated the need for specialized academic supports including specialized academic advising related to early childhood careers. Participant 4 explained,

> I wish there was an early childhood person- that would be at all the institutes of higher ed, maybe like a miracle person, but colleges only need one. If there were certification specialists or someone whose job it is to know all the ins and outs of how to support educators to get their certifications, and students would go talk to

> this person, and they would look at your transcripts and say "alright, great, go down to the Department of Ed and you're ready to go" or "this is what you still need."

This subtheme was highlighted by 9 of the 12 Participants and included references to college advisors, and an emphasis on online and in person resources and mentoring. Participants also noted the role of the director or administrator in supporting staff in educational attainment and ongoing professional development.

Theme 4: Perception of the Profession

The ECE profession is not perceived as a viable career pathway due to a combination of factors, which detract from its appeal to both prospective and existing educators.

Low Wages

All participants identified low wages as a barrier to growing the supply of qualified early childhood educators, and many participants mentioned this barrier multiple times. Participant 8, a high school CTE teacher stated "The biggest hindrance is there is no bucket of gold at the end of the tunnel. [Students] don't see early childhood as a profession that provides enough money for it to be worth it for them to get a college degree." There is a dissonance between the desire to professionalize the field and the reality of inadequate compensation for the workforce. Participants expressed frustration over the lack of livable wages, insurance coverage, and benefits afforded to early childhood educators, and highlighted compensation as a structural challenge effecting meaningful change for the workforce. Participant 4 stated "I don't know how to

structurally change that."

Low Requirements to Enter the Field

The existing state policies and regulations lack a solid foundation to support the perception of early childhood as a valuable profession. Despite the critical role early care and education plays in society, there was a concern among participants about the absence of mandatory minimum educational standards for educators in some settings. The participants described the availability of research about the importance of the early years for children's healthy development, yet the minimal requirements set forth by regulatory bodies result in a system that relies heavily on individuals' goodwill rather than on structured and mandatory qualifications (IOM & NRC, 2015, McLean et al., 2023).

Creating a Career Pipeline

Participant 4 expressed the importance of focusing on Career and Technical Education (CTE) programs as an avenue to attract more young people into the profession. Some high school pathways in the state can offer dual enrollment college credit for students who participate in approved CTE programs, but this opportunity is not available for every program. One participant who is a high school CTE director shared there are opportunities in the school district for students to gain real world experience throughout the program, but the licensing requirements can create access barriers. To utilize CTE programs as an avenue to recruit more educators into classrooms, participants described the need to highlight the positive aspects of being an educator for high school students, as often only negative aspects receive attention.

Marketing Campaigns

To address the shortage of educators, participants described the need for better marketing. Participant 4 stressed the need for marketing campaigns to promote all teaching positions and convey the value society should place on educators. Participants described the lack of marketing and recruitment efforts within the industry, and campaigns could focus on promoting the diverse pathways and opportunities available within early childhood education. Participant 4 said, “we should market it as a great career” and highlight the rewarding aspects of the profession. These strategic marketing campaigns could showcase the potential for career growth and be inclusive of students from various backgrounds.

Supporting Workforce Diversity

Participants described the need for intentional efforts to address the diverse needs of the workforce, particularly those historically marginalized, to ensure that diverse voices are heard and respected. Participant 1 stated, “the people really impacted by this don’t have a voice. They don’t have a big voice in many of these policies and rulemaking and regulations, and I don’t think we work hard enough to try to get their voices heard.” Participant 3 added “we want diversity because we understand that it provides varying perspectives and views. But you also need to be ready, willing, and able to hear those views.”

Participants identified concerns about the lack of resources to support and recruit a diverse workforce, in particular Participant 2 described

I’ve sat on several meetings and panels and discussions about the fact that a lot of

> our workforce is made up of black and brown women. Yet they don't get the resources or support… and I have not heard good examples of how to dismantle the system as it stands, or to solve or resolve those issues.

Research in the literature review indicated representation within and across different types of programs and settings should more closely reflect the diverse communities they serve (Molla & Nolan, 2019a). Participant 4 emphasized the importance of valuing the diversity in the profession and advocated for an increased presence of teachers from diverse backgrounds and a greater number of bilingual teachers to meet the needs of a diverse student population.

Exposure to Related Service Provider Roles

Certified Early childhood educators often find themselves contemplating additional avenues within the field, such as special education or related services like coaching or mentoring. Participant 10 described that the decision to pursue these paths can be influenced by the exposure they have had to such roles during their training. However, there is a limited amount of exposure to these related careers provided within ECE programs.

Theme 5: Structure of the Pathways

The structure of degree pathways, including the distribution of general education and early childhood content and required field experiences can create barriers to degree completion.

Transfer Pathways and Policies

A reoccurring theme identified in the literature, and among participants was the

need to clearly identify the transfer pathways and address policies and structures to make transfer seamless or even guaranteed. (Community College Resource Center, 2020). The polices and structures of degree pathways in ECE are complex and multifaceted. Participants expressed concerns about the lack of standardized pathways, with each institution having its own evaluation process for transferred credits. This creates uncertainty for students, making it difficult to anticipate how previous coursework will align with the requirements of a new institution upon transfer. Participants also described that communication between colleges and universities needs to be improved to support a more efficient transfer process.

Participants were asked about the structure of degree pathways, meaning the mix of general education and early childhood content that is required to complete the degree. There was a consensus among participants that there needs to be a good balance of early childhood coursework for both associate and baccalaureate degrees, if not, the way the pathway is constructed can cause barriers to completion and can even dissuade people from taking the pathway in the first place. Participant 2 stated “I think it’s less overwhelming to take classes in the area you’re passionate about because you have some knowledge and you’re doing it at work. The general education credits can be overwhelming, and I don’t think we can get away from that.”

One university faculty member described first learning about the state’s transfer policies and how degree pathways are structured and stated, “it was a new one for me to wrap my head around how [degrees] were are constructed and how some associate degree pathways have very few general education courses” (Participant 11). Several participants

concurred that educators need to know and understand the general education content, and students could get that content at either at the associate or baccalaureate level. Participant 11 stated educators "need some general content knowledge so those who choose to teach kindergarten, first, second and third grade have that knowledge under them." Several participants described the need to identify tailored general education coursework more clearly "rather than just saying take anything from this list" (Participant 5). Participant 11 also added the need to "make information about transfer pathways available online where anyone can see them. It doesn't need to be this hidden document." Participant 8 stated

> I would say the more complicated the structure is or the more that they have to go back and have to make up something, the less likely people are to finish. They get frustrated and quit. I think that's especially true when you think about the role of a certified teacher, for example, kind of differently even than child care, but [students need to] understand what that looks like and know what they have to do to get that teaching certificate.

Participants emphasized the need for clear guidance and frequent communication with advisors, and those advisors, both at the high school and college levels, play an important role in helping students navigate transfer policies and ensuring that they make informed decisions regarding their academic pathways. Participant 12 highlighted the need for articulation agreements and curated pathways and expressed a desire for more defined efforts to streamline the transfer process and reduce ambiguity for students. Participants described the lack of a standardized approach to transfer is seen as a barrier, making it challenging for students to effectively plan their educational journey.

Field Experience

Access to high quality field experience was described in the literature as an important component of early childhood degree pathways. Research has concluded that careful attention should be paid to the structure of education pathways from the beginning of the programs, including opportunities for students to participate in high quality field experiences in both child care and formal early education settings, and positively portraying educators who choose pre-primary care settings (Gibson et al., 2020). Participants described that field experiences can be a benefit to students, but some structures and policies around field experience can create barriers for students including transportation issues, and meeting requirements that take time away from work when many students are already working in the field.

Participant 11 highlighted the importance of early field experiences "you cannot decide to get your bachelor's degree not having stepped foot into a classroom." Participant 8 described the importance of partnering with current early learning programs so that all students at "whatever level they're obtaining their degree they have access to child care providers within their own community." Participant 1 described the need for early childhood systems partners to come up with apprenticeships or other programs that get students out into the field in a variety of settings and roles including Head Start, family child care, public schools, or even administrative, management, or state agency level policy making experiences so students can "learn more about what is available in the industry... and the different pathways that are available within the industry."

Participants described challenges students encounter in completing field

experiences. These challenges included the licensing requirements needed to enter classrooms, having employers who are willing to support time away from the classroom, and finding time to complete field experience while meeting other personal and professional obligations. Participant 5 described the barriers of a "practicum class where you have to work in somebody else's classroom versus your own, [and] and you've got those types of structural barriers of employers themselves not wanting to give you time to do that."

General Education and Developmental Education Courses

Participants highlighted the difficulty and potential overwhelm many students experience with general education and developmental courses and emphasized the importance of finding ways to deepen the content knowledge in key areas such as math, reading, social studies, and science. Participants shared the perception that general education courses are often an impediment to degree completion and identified a need for student support for challenging subjects. Several participants described math courses as a significant hurdle for students pursuing ECE degrees. Participant 10 stated that math is one of those courses that "takes people out" and Participant 11 described some students "don't even want to take on the teacher's math [methods course] because they're afraid, but the reality is [they] are going to be teaching math, so they need to just come to terms." Gaining confidence in early math and science through college courses can help educators recognize they use math in daily life and in turn they can also help children gain an interest in math, science, engineering and other subjects (Öçal, 2021; Ültay & Ültay, 2020). To support learning in these subjects and address the fear students have

around math, Participant 11 and several other participants stated that there is a need for additional resources and supports in math instruction. Participant 1 added "sometimes it is the rigidness of the faculty in those other disciplines [like math and science] that makes it very difficult for our students to graduate" and Participant 5 added "with certain courses, like math in particular, there are not enough supports."

Participant 5 described the role of developmental coursework within the degree pathway and how students come to higher education with very different levels of preparation, specifically those returning to school after years away, and those students whose primary language is not English. "If you can't include the developmental coursework that somebody needs to get where they need to be, you've already set them up for failure" (Participant 5). Participant 12 explained that many students generally see the applicability of early childhood content and coursework because they are already in the field, and it impacts their daily interactions with children. Participant 12 asserted faculty could do a better job making general education courses more meaningful to students and creating better connections to their daily work with children.

Teacher Certification

There are differences between the requirements of certified teachers and the educator requirements for child care providers in the state. Some parts of the early childhood system do not require bachelor's degrees, and educators can be employed with an associate degree or less. Participant 3 described "a shadow is cast upon those highly qualified teachers and eliminates the need for us to understand the importance of preparedness before [going to] the workforce." Participant 4 explained the complex

process of navigating the policies and requirements for becoming a certified teacher, and the "hoops to jump through," including student teaching, specialized coursework, and exams. Participant 8 suggested that understanding these distinctions is essential, especially for those who want to obtain teacher certification. Participant 7 highlighted student teaching can be complicated for students who have an associate degree and want to move into a bachelor's degree pathway for teacher certification highlighting that it's "impossible if you're going to continue with your job and still go to school." Participant 5 described the challenges faced by individuals who decide to pursue teacher certification later in their careers,

> Once you've decided, 'Hey, I want to be an early childhood educator' and the person is working and obtaining that education at the same time- whether that is finding the time for it, finding the blood, sweat and tears for it, that is a huge barrier. So how do we support people in our society to change their careers when they want to, and not have to die doing it?

Participant 11 highlighted the consequences of a state policy decision that lowered the standards for teacher certification and increased the number of alternate pathways to obtain teacher certification particularly for primary grades (K-3).

> I think some of the policies have been disastrous, [like when] they lowered the requirements for K-3 teacher certification. Those are primary grades and are a very important developmental stage, and you need to have somebody that has gone through a teacher preparation program that is focused on knowing how to teach those children, so they are fully literate, with early math skills and, then

> early science and others skills really follow those early steps. And just randomly placing somebody in there is going to be detrimental not only to those children but to our society.

Participant 4 described the number of different certifications available and the potential confusion for the field around the multiple pathways to achieve teacher certification and there was a need for clarity and guidance in understanding the different routes available.

Clearly Identifying the Pathways

Participants emphasized the importance of communication between educational institutions and the need for a seamless pathway for students. Participants described the need to facilitate dual enrollment opportunities for high school students, and support associate degree completion to be highly marketable in the field and be able to make a seamless transition into baccalaureate programs. The sequence of coursework and field experiences required to complete a degree should be clearly identified and readily communicated to the field. Participants described ways college advisors, faculty members, and community partners could contribute to this effort.

Colleges and early childhood systems partners need to work together to clarify the career pathways, including the pathways to transfer from associate programs into a baccalaureate programs. Participant 4 stated “unless you know somebody who knows the system, it’s really hard to know what to do, or what type of certification you want to have. And if you don’t know the kind of certification you want to have, how do you know what the requirements are to obtain it?” Participant 8 noted,

> There needs to be more transparency and more advertising on what those transfer

> policies are. I'm not even sure what that looks like, but I'll tell you, my students really have very little understanding of that- even though I've tried. I don't know if there could be like a clearinghouse… so that all the community colleges would have the degree requirements from the universities for the same degree so that students would be aware of it from the very beginning.

Participant 1 emphasized there are "more difficulties than there should be" with the transfer process and expressed concern that even if transfer was legislatively mandated, "entities would not work well together to make it easy for the student to transfer without a loss of credit." Participant 5 added "there could be more clarity on some things when talking with the advisor as to what [students] are taking and whether it will transfer or not." Participant 11 believes that guardians of courses need to be sure the courses students take are actually transferable, but participants who are responsible for those courses also expressed fear about telling students the wrong thing and frustration about how complex the transfer system is. Community colleges and high school CTE programs can save students money, but Participant 11 stressed "college personnel also need to be hyper-focused on making sure students don't overspend at community college and pile up electives that don't apply at transfer."

Role of High School CTE Pathways

In exploring the structure of degree pathways in ECE within the context of high school dual enrollment and Career and Technical Education, the ability to earn college credits while still in high school was identified as one way to address potential socio-economic barriers to earning college degrees. Participant 10 shared that in their

experience, high school CTE pathways, particularly in rural communities with early childhood programs, are that "first impressionable opportunity to take students and give them exposure to what it is like to care for children in a professional capacity" and allow them to have that real-life lived experience. Participants 4, 6, 7, 8, 9, and 10 recognized of the value of dual enrollment opportunities for high school students and can provide a strong foundation for students to explore their interest in early education field.

High school CTE pathways also play an important role in career exploration and help guide students toward potential careers in early childhood education. CTE programs, coursework, and field experience also enable students to obtain credentials that may facilitate entry into associate or bachelor's degree programs. Participant 9 believes that "dual enrollment opportunities for high school students to have an early start with post-secondary institutions are invaluable, especially for families with socio-economic issues, transportation or time issues, or whatever other barriers there might be."

Participant 10 described the diminishing availability and funding for onsite lab school opportunities. Colleges once provided extensive exposure to lab schools, enabling students to observe and engage with children through an academic lens and emphasize best practices and research-based approaches. The decline of these opportunities poses a challenge to faculty in incorporating practical experiences into curriculum. The funding issues related to on-site lab sites was raised by high school administrators, college faculty, and state system partners alike. Participants described how college lab sites are "dwindling," and one high school administrator described how public school funding is limited and "funding, facility wise to support [child care] programs that will better invite

and get more students into the CTE programs and give them more of those hands-on applications, are few and far between."

Participants described a few challenges associated with dual enrollment pathways including the availability of CTE programs in all high schools, and the complexity of registration processes, and the need for better communication with parents and students. Participant 4 reflected

> CTE programs are in the high schools, and they represent the diverse populations that the state has. They're in the communities, so I think they are a really great opportunity that we're not taking very much advantage of because the CTE programs, especially the educator ones, aren't in every high school yet and I don't know why.

Participant 2 commented that CTE programs should be "painted as the start of a professional career" as opposed to a place to get an easy credit or do something fun with interactive babies. "I think CTE teachers and directors have to support the students through understanding the career opportunities as opposed to just giving them a grade and letting them go." In discussing the need for collaboration between educational levels, Participant 9 emphasized that "there needs to be a stronger relationship between the post-secondary and secondary schools, so the [enrollment and registration] process is understandable on both ends. That's been our biggest issue." Participant 9 further highlighted improved partnerships could facilitate a more streamlined agreement on making the process more efficient for everyone involved.

Participant 9 explained that high school serves as a foundational period for

students interested in early childhood education where they primarily engage in career exploration. While they gain some career and personal development through earning credentials in high school, many students use this time to decide if they want to pursue the field further, and post-secondary education focuses on developing the essential skills needed to enter the industry. Participant 6 described,

> It starts first at high school with the interest in the seeds that are planted, and then as students move further into their education, they can grasp and build on it. It's kind of like that scaffolding. This is the framework to get you started, and they can add a little bit more as they go through the level they decide to complete.

Theme 6: Factors Related to Degree Completion

Facilitating equitable access to career pathways requires awareness of individual characteristics and needs, recognizing and accommodating diverse personal circumstances, and providing individualized supports.

Personal Characteristics

Intrinsic motivation and a personal commitment to completing the educational path was identified as a factor that contributes to student success. Participants 6 and 8 noted that successful students often have a strong sense of intrinsic motivation, family support, or other motivating factors. Conversely, some participants described that some students need additional support in overcoming uncertainties, navigating family responsibilities and lack of family support for career choices, and identifying their own sense of passion and purpose. One participant who is an educational leader for multiple sites emphasized the importance of instilling in students a genuine desire to explore their

academic pursuits and creating a culture of continuous learning to encourage students who may not inherently possess intrinsic motivation.

> One of the things that we do here at our centers… is the idea of a culture of continuous learning whether it's formal education or continuous professional development and learning. I think that's something that if a person doesn't intrinsically have that, we need to support that- that's a given (Participant 7).

Participant 9 also shared success stories about those who possess an intrinsic need for education, such as cooks, bus drivers, custodians, and substitutes pursuing their educational dreams, but also described the challenges in addressing the lack of initiative and efforts among some students. Participant 1 expressed concerns about the role of external motivation, emphasizing that even when resources like scholarships and paid time for coursework are available, without some amount of intrinsic motivation it is difficult for some students to stay on track.

> Another thing I see is intrinsic motivation. A lot of our students are motivated by their employer or by other things than their own intrinsic motivation. I've tried for years to try to figure out how to increase intrinsic motivation, and it's an impossible task. I tell students all the time, I can show you the way I can lead you, I can help you along the way and provide supports, but honestly, if you don't want this for yourself, it's never going to happen.

In addition to intrinsic motivation Participant 1 shared "I try to prepare students that are in their final semesters about how tenacious they will need to be in order to make sure that their degree transfers in the way that it's supposed to." The participant also shares

information about transfer agreements with students, so they know what to say to the person they are talking to.

Family Obligations

When asked about factors related to degree completion, obligations related to personal and family life were described as both a potential challenge and also a source of motivation and support. Nine participants highlighted the role of family support, or the lack thereof, as a critical component of academic success. Some students face obstacles as their spouses or families do not support their educational goals, additionally, personal life obligations, such as parenting or caregiving responsibilities, pose difficulties that may not be adequately addressed by faculty members and the college system. Participant 10 stated "many people are parents, or they are caring for individuals in their family. So, they are navigating personal life challenges that I don't know if the college system factors in those things."

Participants described multiple personal barriers to degree completion, and the impact of external factors that add a layer of complexity for early childhood students including financial responsibilities, full-time employment, and the difficulty of balancing field experiences with work commitments. This is aligned with the information found in the literature "there are many tangible factors that have implications for career choices (e.g. longer work hours, additional work days, less paid time off, significant differences in pay and benefits), as well as the intangible factors (e.g. perceptions of media, peers, supervising teachers, friends and family members) that could influence the career aspirations of graduates (Gibson et al., 2020). Participant 2 stated that college personnel

need to recognize early childhood students are balancing multiple responsibilities and educational goals may easily "fall through the cracks" without tailored support systems within higher education institutions. Participant 10 stated,

> I know there are exceptions, and I would assume these still exist from when I was in college, but when you're talking about having lived through a pandemic, and an economy that's going through inflation, all these things play into the heaviness that people carry when they're showing up and trying to complete a class. It's important for institutions of higher education to be responsive of those things. Otherwise, the risk is you lose that student.

English Language Learners

Participants identified a need for increased linguistic inclusivity within higher education institutions and a more intentional focus on increasing representation of diverse faculty members. When asked about ways to make college degree attainment more accessible and efficient for a diverse early childhood workforce Participant 4 stated "having a diverse group of people teaching in universities is number one because when I see someone like me, or I hear somebody like me, I want to learn from them more, and I want to see myself like that." The participant emphasized having someone they can relate to increases their motivation to learn and can help them envision themselves in similar roles. The participant suggested universities should prioritize building a diverse faculty to help cultivate and support a more diverse workforce.

Participant 5 described the importance of offering courses in multiple languages, and a more flexible approach to accommodating bilingual students. Participant 12

stressed the importance of allowing assignment submissions in additional languages and Participant 2 described the additional workload required for non-native English speakers who create their own strategies for translating course materials into a native language so they can complete assignments. “If you’re having to translate everything you are learning that is double the amount of work. So, if it was possible for more classes to be offered in multiple languages, that would be great.”

The lack of support for second language learners, coupled with rigid program structures that prioritize English proficiency, was identified as barrier to academic success by Participant 5. “There’s too much rigidity with the programs in a lot of the programs saying, well, it’s English or nothing and if you can’t write the paper up to our standard then too bad.” Participant 5 also discussed how providing academic content in the languages predominantly used by individuals in the workforce could enhance inclusivity and assist educators in overcoming language-related barriers to degree completion. This correlates with research in the literature review by Storlie et al. (2016) that explored the career development of Latina first generation college students and the key structures that contribute to the challenges that first generation Latina women face in completing degrees.

Technology Challenges

Participants identified technology related challenges concerning digital literacy, technology awareness, and quality internet access. As educational processes increasingly transition to virtual environments, the need for technology supports and equitable access to the internet becomes an important factor related to degree attainment (Roth,

2020). Participant 11 described that internet access poses a barrier for students residing in tribal communities where there is not universal or consistent access to reliable and quality internet connectivity. The rapid shift to online learning increased workloads for educators, requiring swift adaptation of content and digital skills. While universities with existing online options focus on expanding these, many faculty and students face significant challenges adjusting to the new normal (Allen, Rowan & Singh, 2020). Participant 1 highlighted the broader connectivity issue, and emphasized the importance of internet access, and described challenges with the transition to online college processes such as the online application and registration processes that have become prevalent in higher education. Participant 11 described the significance of students' technological proficiency in navigating college and transfer websites to assess the transferability of their completed courses and many students lack the computer skills required to use this resource and college advisors may not consistently offer sufficient support.

Individualized Advising and Student Support

Several research reports including Cheng et al., 2018; Kaplan, 2018; NAEYC, 2020c; and Workman et al., 2018 identify specific innovative strategies colleges used to overcome barriers associated with early childhood degree completion and to improve the quality and diversity of the early childhood workforce. Individualized advising is one of many key factors, and participants identified that there should be a specific focus on the challenges and considerations for diverse student populations. Participant 1 described a common misconception among community college students about the time and planning required to complete an associate degree. Many students assume attending college for the

designated duration guarantees “a 2-year degree,” without recognizing the degree completion requires completing a specific series of coursework within that degree pathway.

> We put together some [resources] at my college showing students how long it would take to get a degree if they only took one 3-credit course per semester. They were shocked because they thought they were at a two-year college and so they just figured as long as I attend for two years, I’m going to get a two-year degree, when it doesn’t work that way. I think that mind shift from just attending, like you do in public school, isn’t going to get you what you need, and you’ve got to make a plan. And I’m not sure that we’re good at helping students make a plan (Participant 1).

Participant 8 noted the importance of creating streamlined structure of the academic pathway and highlighted the need to retake certain courses as a potential obstacle that could lead to frustration and attrition.

Participant 8 described those non-traditional students, including older individuals pursuing formal education, have unique advising needs and colleges need to offer flexible appointment schedules for student services that align with their personal responsibilities. Participant 5 noted a need for tailored tutoring “the supports that are needed for a lot of early childhood professionals are a little bit different than the standard math tutoring.” Participant 5 also emphasized that colleges should better understand students’ individual circumstances and engage in conversations with them before they commit to taking on a full course load. Discussing what other responsibilities or

challenges a student might be facing, college personnel could help prevent students from overcommitting, struggling with their coursework, and ultimately facing academic probation or restrictions due to being unaware of everything that is required.

Participants also described challenges for students transitioning from rural to urban environments, and first-generation students who face challenges in navigating campus life.

> In my opinion we are knowledgeable and accepting of who [students] are and where they come from. I think sometimes, some of the barriers I think about are even bigger for our diverse populations. If you grew up in a rural area and you're now coming to the city to go to school, just getting around and understanding the campus map and those kinds of things are hard for students, and I don't think they are necessarily conducive [to supporting] diversity and equity (Participant 1).

The recommendations from participants in this section are aligned with the research of Gardner et al. (2019) that found offering a variety of supports are key to student success. When institutes of higher education can provide specialized supports through strong, supportive relationships with academic advisors, students are better able to navigate the complex higher education processes and program requirements that can otherwise become barriers to successful degree completion. Supportive advising relationships are also found to be helpful in connecting students with additional resources on campus such as "tutoring, disability support services, zero-cost textbooks, food pantries, and other critical financial aid resources" (Gardner et al., 2019, p. 57).

Table 7 provides a crosswalk of the themes that emerged from the data and their

alignment to the constructs of the conceptual framework for the study. The conceptual framework for this study incorporated the components systems theory, which asserts education systems function relative to the effectiveness of each of the components, the systems, policies, and structures, as well as the whole of the parts (Senge, 2006).

Table 6

Themes in Relationship to the Concepts of the Conceptual Framework

Central Research Question	Systems	Policies	Structures
What are the perceptions of early childhood systems partners who influence the structures and policies that affect the creation of early childhood degree pathways from high school to the baccalaureate level on ways career pathways could be improved?	Resources and Supports Perception of the Profession	Factors Related to Degree Completion Streamlining State Policies	Structure of the Pathways College Structures

Evidence of Trustworthiness

There are four key elements of trustworthiness established for qualitative research including credibility, transferability, dependability, and confirmability (Merriam & Tisdell, 2016). The construct of trustworthiness is also referred to as validity and can be seen as a strength of qualitative research when related to whether the findings are accurate from the perspectives of the researcher, the participants, or the readers (Creswell, 2015). Establishing credibility requires diligent adherence to the research design, focusing on the method for data collection and analysis, and considering the nuances of the data (Ravitch & Carl, 2016). Without trustworthy, validated, confirmed, and credible data, the knowledge acquired from qualitative research cannot be used to shape new initiatives and cannot effectively be applied to future contexts or influence

positive social change objectives.

In qualitative research, credibility refers to whether the participants' perceptions of the findings of the study are accurately reflected by the researcher (Ravitch & Carl, 2016). Credibility, a parallel of internal validity, was established by using peer review and implementing member checking. Data were triangulated in this study by comparing the perceptions of participants with different points of view. Data for this study came from qualitative interviews with 12 participants who work in different roles within the early childhood system from the high school, community college, university, and state systems level. The variation in roles and experiences of participants provided multiple perceptions about the research questions. These perceptions were documented, identified, coded, and then patterns and common themes were categorized and analyzed. Triangulating the data in this way reduced systematic bias and possible distortion during data analysis and increased credibility and quality (Patton, 2014).

Another aspect of credibility used to support the validity of the results of this study was member checking. According to Patton (2014) "researchers and evaluators can learn a great deal about the accuracy, completeness, fairness and perceived validity of their data analysis by having the people described in that analysis react to what is described and concluded" (p. 662). Member checks were implemented to allow participants to review individual summaries of the data collected and confirm that the data were accurate, complete, and fair.

Transferability is established when others who read a study can identify the results of the qualitative research are applicable into other environments, contexts,

populations, and settings (Cypress, 2017; Yin, 2016). The semi-structured interviews in this study contained open-ended questions that allowed participants to provide rich, detailed responses. The participants in this study were selected based on purposive sampling and included a diverse group of early childhood system partners who shared their own lived experiences and personal perceptions. By accurately transcribing and sharing the responses of the participants using thick descriptions and providing enough contextual information that others can understand the problem being presented, others can draw their own interpretations about meanings and significance (Patton, 2014). The transferability of the results in this study may be used to promote changes to the systems, structures and policies related to early childhood degree pathways and support positive social change for the early childhood workforce.

Dependability refers to the reliability and consistency of the research design and its alignment with the research problem and purpose (Ravitch & Carl, 2016). In this study, dependability was ensured by thoroughly documenting research procedures and strictly adhering to the research design. The Interview Protocol and Question Guide (Appendices A-B) were used to maintain consistency in the interview process. A comprehensive data collection log, including reflective notes documenting any ethical concerns, further supported the dependability of the research design. Additionally, participants were engaged in member checking, and interview transcripts sent to confirm accuracy. No adjustments were made to the approved research design or data collection processes in this study.

Confirmability was established by acknowledging and reflecting on my personal

beliefs and potential biases related to the topic of this study. Throughout the research process, I considered how my biases or ideas for improving the professional development system could impact data interpretation (Ravitch & Carl, 2016). Additionally, an audit trail and a data collection log were created to ensure transparency and objectivity. The audit trail, maintained in a Microsoft Excel spreadsheet, documented the notes, actions, and processes used in data collection. As outlined in the data analysis plan, procedures for checking and rechecking the data, along with findings, interpretations, and recommendations, were carefully documented in the notes and data collection log. The audit trail, along with organized records and detailed notes, supports the objectivity of the research and ensures the absence of researcher bias (Merriam & Tisdell, 2016).

Summary

In Chapter 4, I provided a summary of the results of the qualitative interview process and summarized the participant responses. Data analysis through a coding process revealed six themes that supported the conceptual framework for this study and answered the following research question: What are the perceptions of early childhood systems partners who influence the structures and policies that effect the creation of early childhood degree pathways from the high school to the baccalaureate level on ways career pathways could be improved? The themes that were identified include, (a) streamlining state policies (b) college structures (c) resources and supports (d) perception of the profession (e) structure of the pathways (f) factors related to degree completion.

In Chapter 5, the interpretation of the findings will be presented along with the limitations of the study and implications for changes to policy and practice to support the

early childhood workforce. The chapter will also include recommendations for future research, and I will conclude with sharing potential implications for positive social change and recommended next steps.

Chapter 5: Discussion, Conclusions, and Recommendations

Previous researchers have indicated there was a need to research the ways systems, structures, and policies related to ECE career pathways might be improved (Cheng et al., 2018; Lees & Kennedy, 2017; Zinsser et al., 2019). The purpose of this basic qualitative study was to examine ECE career pathways by investigating the perceptions of educational personnel in one southwestern state regarding the current systems, structures, and polices that are related to career pathways through high school, community college, and university levels. I used a basic qualitative design that was appropriate to answer the research questions for the study. The research questions were designed to explore the perceptions of early childhood systems partners on the effectiveness of the systems, structures, and policies that are related to career pathways for early childhood educators, and the ways career pathways are related to degree completion and shortages of qualified early childhood educators. Data for this basic qualitative study were collected through 12 individual in-depth interviews to answer the research questions. Participants for this study were chosen from an available population of 850 instructional leaders and early childhood systems personnel, and educational leaders at the high school, community college, university, and state systems levels with specific knowledge of the current/future early childhood workforce, and the policies and structures of early childhood career pathways. The variation in roles and experiences of participants provided multiple perceptions about the research questions.

After careful analysis of the data collected from the interviews, six themes emerged and were used to answer the research questions for the study. Research Question

1 was answered through Themes 1, 2, 3, and 4 and Research Question 2 was answered through Themes 5 and 6. The following themes were identified:

- Theme 1: Streamlining State Policies. Streamlining the policies and structures established by state regulatory agencies and improving communication to address barriers to employment and promote diversity within the workforce.
- Theme 2: College Structures. College structures, policies, and requirements can create hurdles that reduce access and inclusivity and impact degree completion.
- Theme 3: Resources and Supports. Access to general resources and supports enables educators to navigate career pathways more efficiently and remain engaged in the field.
- Theme 4: Perception of the Profession. The ECE profession is not perceived as a viable career pathway due to a combination of factors, which detract from its appeal to both prospective and existing educators.
- Theme 5: Structure of the Pathways. The structure of degree pathways, including the distribution of general education and early childhood content and required field experiences can create barriers to degree completion.
- Theme 6: Factors Related to Degree Completion. Facilitating equitable access to career pathways requires awareness of individual characteristics and needs, recognizing and accommodating diverse personal circumstances, and providing individualized supports.

The conceptual framework for this study incorporated classic systems theories

including von Bertalanffy's (1969) general systems theory that described the complex interactions between various components of systems and how the distinct system components and the whole of the parts impact individuals. The early childhood professional development system is a complex, disjointed, and somewhat inefficient system of regulatory policies, professional training, and structured career pathways that include workforce credentials, certifications, and associate and bachelor's degrees (NAEYC, 2020c). The complexity and inconsistencies of the system lead to vast differences in the professional preparation and training of the workforce that disproportionately affect people of color, non-traditional working students, and first-generation students. The current system structures perpetuate "systemic inequalities and barriers to access and attainment at the bachelor's and associate degree levels" (NAEYC, 2020c, p. 1). The findings of this study support and enhance the existing research on the systems, policies, and structures related to educator pathways and address the gap in research and practice needed to improve the early childhood professional development system. These findings may also support the creation of a well-prepared, well-compensated, diverse workforce of professionals who reflect families and children they serve (NAEYC, 2020c).

Interpretation of the Findings

The findings of this study confirm and extend knowledge that could be used to understand how equity and access, professional milestones and curricula, coursework and field experiences, community partnerships, and transfer pathways contribute to future educators obtaining the knowledge, skills, dispositions, and credentials necessary to enter

the early childhood teaching workforce more efficiently (Xu et al., 2018). The research process was informed by prior findings from the literature review and demonstrated many similarities with previous research, including the knowledge, skills, and dispositions required for effective teaching, policies related to degree attainment, the structure of the degree pathway, aspects of the transfer process, and the need for specialized resources and supports. Participants also highlighted the need to improve working conditions, salaries, and the perception of the early childhood profession, which aligns with recent research findings (Grant et al., 2019; McMullen et al., 2020).

Much of the research on early childhood teacher preparation focuses on the structure, elements, and organization of degree programs. This includes the coursework structure within the degree pathway, the knowledge, skills, and dispositions required, and the institutional policies that affect the accessibility of these pathways (Kaplan, 2018; NAEYC, 2009, 2020c; Schilder, 2016). The findings of this study align with the literature, indicating that the accessibility of higher education degree pathways and challenges in articulating credit and recognizing prior learning are frequently cited as barriers to building a highly qualified early childhood workforce, particularly for educators currently working in the field (Cheng et al., 2018; Kaplan, 2018).

The findings are consistent with research indicating the need for an intentional focus on supporting students with additional resources and advising, particularly to help early childhood educators, especially diverse educators and first-generation students, overcome personal challenges that hinder them from completing degree pathways (Holod et al., 2019). The findings also align with research suggesting that community colleges

are uniquely positioned to offer widely accessible programs of study in local communities and are generally better suited to meet the diverse needs of early childhood educators (Kaplan, 2018).

Furthermore, the findings support research asserting that the persistent gap in wages, compensation and recognition for early childhood educators is a contributor to educator shortages and turnover in the field (McMullen et al., 2020; Schaack et al., 2020). Over half of the participants commented that the ECE profession is not viewed positively. This finding warrants further investigation to explore successful policies and strategies that will improve the perception of the profession (Lightfoot & Frost, 2019; Molla & Nolan, 2019b). To enhance clarity, findings were organized by research questions, with corresponding themes presented and supported by relevant literature.

Results of Research Question 1

Research Question 1: What are the perceptions of early childhood systems personnel at the high school, community college, university, and state systems levels on the effectiveness of the systems, structures, and policies that are related to career pathways for early childhood educators?

Theme 1: Streamlining State Policies

The findings indicated that participants perceive that the policies and structures created by state regulatory agencies could be improved to remove barriers to employment and promote diversity within the workforce. Four of the participants described that state agency policies are confusing, unclear, or misaligned, and often included unnecessary "hoop jumping" to access needed resources. This was described as particularly

challenging by participants who are responsible for helping students meet the multiple requirements to enter early learning programs for field experiences. Participant 5 described "I don't think there is enough knowledge of each other's policies… there's not enough sharing of knowledge and information." Participants described a need for greater inclusivity in the policy-making processes and amplifying the voices of those impacted by regulations by creating effective systems for collecting and utilizing educator and stakeholder feedback. This is in alignment with the recommendations of the NAEYC Unifying Framework for the Early Childhood Profession (NAEYC, 2020c). Participant 3 stated there is a "critical need" to listen to the voices of diverse educators. Participants 3, 4, and 12 identified the need for a centralized resource where individuals can access comprehensive information about state policies and regulations.

Regarding the role of professional development, participants noted that state agencies should work together to ensure that professional development offerings are robust, competency-based, and aligned with broader educational pathways. When discussing opportunities for professional development, Participant 2 stated "I don't think that our state agencies are always the best at communicating with each other in terms of duplication." Participants reported that there are uneven and inequitable opportunities for educators to engage with the state's early childhood professional development system. Participant 4 described how intentional mentoring, and on-the-job training could elevate the quality of professional development and emphasized the need to set high standards for professional development providers without compromising accessibility of the training provided.

Findings for this theme support the theoretical framework of this study that early childhood systems, policies, and structures drive the development, quality, and stability of the early childhood workforce. Senge (2006) asserted that "systemic structure is concerned with the key interrelationships [and variables] that influence behavior over time" (p. 44) and "structure produces behavior and changing underlying structures can produce different patterns of behavior" (p. 53). Participants expressed concerns regarding the alignment the programs of study between community colleges and universities, suggesting that improved communication between higher education institutions could address this issue. Participant 10 expressed uncertainty about the level of communication between universities and community colleges regarding their shared goal of supporting all students, regardless of age, in successfully pursuing and completing degrees. They emphasized the importance of collaboration between higher education institutions, especially considering declining enrollment and low degree completion rates. As it relates to the requirements for teacher certification and the multiple traditional and alternative pathways to achieving teacher certification, Participant 4 noted "there are like eight different ways to get your certification" and expressed that there is a need for more information about the pathways and what opportunities are available with each role. Participant 8 said "it should be clear what [credentials] you need to have to work in which positions, and then streamlining that statewide."

Theme 2: College Structures

The findings indicated that college structures, policies, and requirements can create hurdles that reduce access and inclusivity and impact degree completion.

Participants noted the structures and policies of colleges and universities can create processes that are difficult to navigate, and policies and requirements related to enrollment, registration, and advising are especially challenging for first generation college students, bilingual students, and high school students transitioning to college.

Some participants expressed concerns about the effectiveness of higher education in preparing students for the workforce, emphasizing the need for a paradigm shift to better align educational practices with the rapidly changing landscape and needs of young learners. Participants described the potential barriers to accessibility and degree completion within higher education institutions and described the need for changes to streamline processes and enhance transparency to ensure a more inclusive and easier to navigate experience. This aligns with the statement by NAEYC (2009) that "cost, location, scheduling, or students' previous educational experiences can impede access to postsecondary education" (p. 15). Participants also identified open communication, collaboration, and flexibility between community colleges and universities as strategies to enhance career pathways and address workforce needs more effectively.

Multiple participants discussed the value of cohort groups for addressing challenging academic subjects like math and science, and other general education courses. Participants described the effectiveness of collaborative learning in overcoming hurdles and achieving success. Seven participants identified cohorts as a strategy to support access to resources and peer support. Participants described how cohorts foster a sense of community and increase student persistence and degree completion, especially for bilingual students and those without a strong support system at home. "To go through

a degree program as a cohort and embed that in your work… that instructor very much sees that community and their needs" (Participant 2). This supports the research by Gist, et al. (2019) which views the diverse knowledge, skills, and experiences that people of color bring to teacher education as valuable assets. These assets can be nurtured through support structures in key areas including academic, social, financial, and linguistic.

When asked about ways to make career pathways from high school through bachelor's degree completion more relevant to the needs of local communities, seven participants stated that there is a need for higher education institutions to seek community and provider input. Five participants described the need for colleges and universities to better communicate with each other. Participant 10 emphasized the role of community colleges as trusted anchors within communities and serving as a "go-to source" for individuals navigating career pathways. "Most community colleges are grounded and rooted in a community that people know as the go-to source." Participant 1 noted "with all the variety of ways that our community colleges and our universities offer opportunities for students, I feel like we're doing everything we possibly can to try to make it easy and make [classes] at a time when they can attend and make it relevant to their current work or their aspirations." This is in line with the recommendations of Kaplan (2018) that describes the value of leveraging community college capacity to transform the early childhood workforce.

Theme 3: Resources and Supports

Access to general resources and supports enables educators to navigate career pathways more efficiently and remain engaged in the field. Findings in this theme

identify four categories of needed resources and supports including professional membership organizations and mentoring, one central location for career information, financial resources and supports, and a person to help navigate the professional development system.

Student and professional organizations play an important role in supporting educators as they navigate early childhood career pathways. All the participants who work in high school programs shared the value of Career and Technical Student Organizations in keeping students engaged in the pathway and learning critical leadership and academic skills. Participant 2 highlighted the positive impact of a particular student organization in the state which provided students with support, accountability, and opportunities for leadership. Students who actively engage in such organizations are more likely to advance their careers and treat ECE as a profession. Lees and Kennedy (2017) describe the "mutually beneficial partnerships" that involve community stakeholders and practicing professionals and how social interactions within these organizations foster personal growth and professional development.

Early childhood degree pathways are challenging to navigate and there is confusion about what the different career pathways are and the individual roles available for educators. Creating one centralized location for career information is one strategy that could help eliminate confusion. Participant 5 described the concept of a centralized database that would consolidate information about career pathways, scholarships, and other resources available for the field. They highlighted the current challenge of navigating multiple scholarship websites, which can be overwhelming for students.

Participant 9, a high school teacher stated, “There’s not a great deal of marketing for the industry, so regardless of the pathway students choose, if there’s nobody out there really marketing and recruiting them, to attract them to it, then it’s a good chance it’s not going to happen.”

The state offers multiple scholarship programs for early childhood educators to support the attainment of workforce credentials, college certificates, and associate degrees. While all participants were aware of this funding, they identified the need for additional financial resources and support as a significant barrier for the workforce. Specifically, all but 1 participant emphasized the need for scholarships for bachelor’s degrees.

Participant 5 emphasized the need for dedicated staff positions within educational institutions to support and inform students about available organizations and career pathways. Advising and career counseling are elements that are repeatedly shown in the literature to support the successful preparation of a diverse early childhood workforce (Xu et.al, 2018). Gardner et al. (2019) further indicate the need for specialized academic supports including specialized academic advising related to early childhood careers. Nine of 12 participants highlighted this need and included references to college advisors, and an emphasis on online and in person resources and mentoring. Participants also noted the role of the director or administrator in supporting staff in educational attainment. The scarcity of funding and resources creates a significant barrier to creating and sustaining essential support systems. Participant 5 stressed the importance of identify funding to hire staff who possess expertise in equity, inclusion, and diversity, as this expertise can

provide valuable support and alternative perspectives.

Theme 4: Perception of the Profession

The ECE profession is not perceived as a viable career pathway due to a combination of factors, which detract from its appeal to both prospective and existing educators. Some of the categories identified within this theme included low wages and low requirements to enter the field. Strategies identified to improve the perception of the profession included creating a career pipeline, implementing marketing campaigns, and supporting workforce diversity.

All the participants in this study identified low wages as a barrier to growing the supply of qualified early childhood educators, and many participants mentioned this barrier multiple times. Participant 8, a high school CTE teacher stated "I think the biggest hindrance- is there is no bucket of gold at the end of the tunnel. [Students] don't see early childhood as a profession that provides enough money for them for it to be worth it for them to get a college degree." There is a dissonance between the desire to professionalize the field and the reality of inadequate compensation for the workforce.

Workforce demographics show that most early childhood educators work full-time, are often women of color, and many have primary responsibility for the care of others in their homes (Kaplan, 2018). As for educational demographics, the majority are part-time students, most (60 percent) take remedial coursework, many are English language learners, and most face significant financial barriers due to the low wages typical of the field (Kaplan, 2018).

Participant 4 stressed the need for marketing campaigns to promote all teaching

positions and convey the value society should place on educators. Participants shared that there is a lack of marketing and recruitment efforts within the industry, and campaigns could focus on promoting the diverse pathways and opportunities available within early childhood education. Participant 4 said, “we should market it as a great career!” and highlight the rewarding aspects of the profession.

Participants identified concerns about the lack of resources to support and recruit a diverse workforce, in particular Participant 2 described “I’ve sat on a number of meetings and panels and discussions about the fact that a lot of our workforce is made up of black and brown women. Yet they don’t get the resources or support… and I have not heard good examples of how to dismantle the system as it stands, or to solve or resolve those issues.” Research in the literature review indicated representation within and across different types of programs and settings should more closely reflect the diverse communities they serve (Carver-Thomas, 2018, Gardner et al., 2019).

The existing state policies and regulations do not establish a strong foundation to support the perception of ECE as a valuable profession and existing working conditions do not support educator well-being (Grant et al., 2019). Despite the critical role of early care and education in society, participants expressed concerns about the lack of mandatory minimum educational standards for educators in certain settings. This gap in standards contributes to the perception that ECE lacks the professional rigor seen in other fields and does not require professional wages.

Results of Research Question 2

Research Question 2: What are the perceptions of early childhood systems

personnel at the high school, community college, university, and state systems levels on ways career pathways are related to degree completion and shortages of qualified early childhood educators?

Theme 5: Structure of the Pathways

The structure of degree pathways, including the distribution of general education courses and early childhood content and required field experiences, can create barriers to degree completion. Some of the categories identified within this theme included transfer policies and pathways, field experience, general education and developmental education courses, clearly identifying the education pathways, and role of high school CTE pathways. This is supported by the research of Gauthier (2020) that indicated educator preparation programs should "work to better incorporate general education concepts into technical courses and curricula" (p. 5).

A reoccurring theme identified in the literature, and among participants, was the need to clearly identify the transfer pathways and address policies and structures to make transfer seamless or even guaranteed. (Kaplan, 2018). The polices and structures of degree pathways in ECE are complex and multifaceted. Participants expressed concerns about the lack of standardized pathways, with each institution having its own evaluation process for transferred credits. This creates uncertainty for students, making it difficult to anticipate how previous coursework will align with the requirements of a new institution upon transfer. Participant 8 stated "I would say the more complicated the structure is or the more that they have to go back and make up something, the less likely people are to finish. They get frustrated and quit." This is aligned with research that found "the loss of

credit students experience in inefficient degree pathways is discouraging and can cause significant delays in degree completion (Holod et al., 2019).

Participants described challenges students encounter in completing field experiences including the state licensing requirements needed to enter classrooms, having employers who are willing to support time away from the classroom, and finding time to complete field experience while meeting other personal and professional obligations. These findings are aligned with Douglass (2019) "the positive relationships between and among early educators, higher education personnel, and ECE program directors may support early educators to complete their college degree and apply new learning into the early childhood classroom" (p. 2). Participants also shared the perception that general education courses are often an impediment to degree completion and identified a need for student support for challenging subjects. Several participants described math courses as a significant hurdle for students pursuing ECE degrees. Participant 10 stated that math is one of those courses that "takes people out." This is supported in research by Öçal (2021) which found that pre-service early childhood teachers' beliefs about mathematics are significant because those beliefs will affect many factors involved in their future teaching.

Participants 4, 6, 7, 8, and 9 recognized of the value of dual enrollment opportunities for high school students that can provide a strong foundation for students to explore their interest in early education field. One example described in the literature are Teacher Cadet Programs that are currently offered in 33 states (Gist et al., 2019). Participant 9 stressed "there needs to be a stronger relationship between the post-

secondary and secondary schools, so the [enrollment and registration] process is understandable on both ends. That's been our biggest issue." Participants expressed that better partnerships and better transfer agreements would make career pathways more efficient for everyone. This is aligned with research by Fink and Jenkins (2017) that identified key strategies for effective transfer pathways.

Theme 6: Factors Related to Degree Completion

Facilitating equitable access to career pathways requires awareness of individual characteristics and needs, recognizing and accommodating diverse personal circumstances, and providing individualized supports. This theme included several subcategories identified by the participants including personal characteristics and motivation, family obligations, English Language Learners, technology challenges, and individualized advising and student support. These categories are also supported in the literature that describes the need for an intentional focus on supporting students with additional resources, supports, and advising (Holod et al., 2019).

Intrinsic motivation and a personal commitment to completing the educational path contribute significantly to student success. Participants 6 and 8 noted successful students often have strong intrinsic motivation, family support, or other motivating factors. Conversely, some participants described some students need additional support in overcoming uncertainties, navigating family responsibilities and lack of family support for career choices, and identifying their own sense of passion and purpose. Participant 9 shared success stories of those with an intrinsic motivation for education, such as cooks, bus drivers, custodians, and substitutes, but also highlighted the challenges some students

face due to lack of intrinsic motivation. Participant 1 emphasized the challenge of relying on external motivation, noting that without intrinsic motivation, students struggle to stay on track even when resources like college scholarships and paid time for coursework are available. “Many of our students are motivated by their employer or other things than their own intrinsic motivation... I tell them I can help you along the way and provide supports, but honestly, if you don’t want this for yourself, it’s never going to happen” (Participant 1). This is supported by research that identified five broad categories of competencies for early educators including having the ability and motivation to continually improve the quality and effectiveness of one’s practices (Workman et al., 2018).

Participants described personal barriers to degree completion, and the impact of external factors that add a layer of complexity including financial responsibilities, full-time employment, and the difficulty of balancing field experiences with work commitments. Interestingly, participants described these external factors as both a potential barrier and as a potential strength when family members provide a source of inspiration and motivation. This finding aligns with literature noting tangible and intangible factors (e.g. perceptions of media, peers, supervising teachers, friends and family members) that could influence the career aspirations (Gibson et al., 2020).

Participants identified a need for increased linguistic inclusivity and diverse faculty representation in higher education. Participant 4 suggested having diverse faculty to make degree attainment more accessible, “have a diverse group of people teaching in the universities would be number one… universities need to have a diverse workforce

within their own selves to create or participate in creating a diverse workforce." The lack of support for second language learners and rigid program structures prioritizing English proficiency were identified as barriers. Participant 5 noted, "there's too much rigidity with a lot of the programs saying, well, it's English or nothing." Providing content in predominant workforce languages could enhance inclusivity and reduce barriers to degree completion. This correlates with research in the literature review that explored the career development of Latina first generation college students and the key structures that contribute to the challenges that first generation Latina women face in completing degrees (Storlie et al., 2016).

Research identifies strategies to overcome barriers in early childhood degree completion and improve workforce diversity (Cheng et al., 2018; Kaplan, 2018; NAEYC, 2020c; Workman et al., 2018). Individualized advising is one of many key factors, and participants identified that there should be a specific focus on the challenges and considerations for diverse student populations. Participants identified technology related challenges concerning digital literacy, technology awareness, and quality internet access. As educational processes increasingly transition to virtual environments, the need for technology supports and equitable access to the internet becomes an important factor related to degree attainment (Roth, 2020).

Participant 8 highlighted the unique advising needs of non-traditional students, such as older individuals returning to formal education, and emphasized the importance of colleges offering flexible appointment schedules for student services. The recommendations from participants in this section are aligned with the research of

Gardner et al. (2019) which found that offering a variety of supports are key to student success. When institutes of higher education can provide specialized supports through strong, supportive relationships with academic advisors, students are better able to navigate the complex higher education processes and program requirements that can otherwise become barriers to degree completion.

Limitations of the Study

The study was limited to a purposive sample of 12 early childhood stakeholders at the high school, community college, university, and state systems levels in one south-western state. The primary method used to gather data were semistructured open-ended interviews which are an appropriate method and sample size for qualitative research as qualitative samples must be large enough to confirm that the bulk of perceptions are discovered, but not too large to be repetitive and redundant (Ravitch & Carl, 2016). Although the sample was drawn from an estimated population of 850 instructional leaders, faculty, teachers, advisory board members, and specialists in state agencies, the size and intentional nature of the sample and the specific feedback requested regarding the systems, structures and resources of the southwestern state, the transferability of the results may be limited.

Another limitation of the study is the personal beliefs, experiences, and biases of the participants. The participants all have their own perceptions and experiences as former students and/or current educators, supervisors, and faculty members and those experiences as leaders and policymakers may have influenced their responses to the interview questions. Some participants held strong beliefs that the structures and policies

related to ECE careers pathways in the southwestern state need to be improved.

Despite encouraging participants to share their own perceptions, it is possible that they may have discussed topics and issues they believed I wanted to hear. During the interview process, I actively encouraged participants to share their individual perceptions by asking for specific examples, probing deeper into certain responses, and seeking additional clarification when necessary. This approach allowed participants to convey their unique experiences, rather than what they presumed I wanted to hear. Consistency and objectivity were maintained by asking the same questions to each participant and consistently reflecting on my positionality. I took deliberate steps to ensure the data were carefully analyzed to ensure interpretations and descriptions accurately represented the participants' experiences.

Recommendations

This research study contributes to the current body of research on early childhood career pathways and the systems, policies, and structures that contribute to educator shortages. The study presents six overarching themes found in the data that could contribute to changes in policy and practice that would support the recruitment and retention of a well-prepared, well-compensated, diverse early childhood workforce. Potential systems changes related to the six themes identified in this study are: 1) streamlining state policies, 2) improving college policies to reduce barriers and increase equitable access to degree pathways, 3) increasing statewide access to resources and supports, 4) identifying and implement strategies to improve the perception of the profession for prospective and existing educators and society in general, 5) eliminating

barriers created by the structure of degree pathways, 6) creating strategies to assess individual characteristics and needs and address the personal factors related to degree completion.

Streamlining and aligning policies could help reduce the barriers educators experience entering the field and pursuing career pathways. Implementing these systems changes could help elevate the status of early childhood educators and ensure their contributions to children's development and learning are recognized and valued. The findings of this research may influence leaders in the early childhood professional development system to consider ways that they can individually and collectively make research, policy, and structural changes to benefit the workforce and address educator shortages.

There are areas that need further research for systems leaders to fully understand the policy and structural changes needed to create positive changes and greater access to career pathways within the early childhood system. Recommendations for additional research studies on this topic include:

- Increase the number of participants to include students at high school, community college, and university levels, as well as current educators and educational leaders, to gather additional perceptions.
- Collect additional data about how working conditions and educator well-being contribute to educator shortages.
- Explore how ECE professionals develop their professional identity and the factors that influence the way they perceive their work and sense of belonging and

commitment to the field.

- Study the public perception of the early childhood profession and the impact of societal views on the workforce and identify strategies to enhance the public image of the profession.
- Research the effectiveness of policies and practices aimed at promoting diversity and inclusion within the workforce and study the barriers to entry and advancement for underrepresented groups.

Implications

There are implications for system changes that have the potential to create positive social change within the early childhood professional development system, as well as for individual educators, classrooms, programs, and the families and children they serve. The first implication for positive change is at the state systems level. Policy and funding changes are needed to support the development of transfer pathways, scholarship opportunities for baccalaureate degrees, investments in grow-your-own programs, and recognizing on-the-job learning and credit for prior learning for degree requirements (Gist et al., 2019). Enhanced collaboration and communication between state agencies and institutions of higher education could streamline requirements and increase degree completion.

The second implication for positive change is increased communication among education institutions in the state to clarify, strengthen, and align early childhood career pathways. Increased communication and collaboration between higher education institutions at the baccalaureate and associate level would facilitate a more efficient

transfer process. Inclusion of career and technical education programs at the high school level and an alignment of the knowledge and skills developed in certificate and credential pathways could be better integrated into college degree programs. Better aligned education pathways allow students to progress more quickly and transfer with minimal loss of credit (Holod et al., 2019). Increased communication between education institutions could also lead to shared understanding of the resources and supports available to support students in degree completion (Fink & Jenkins, 2017; Huss-Keeler, 2020; Kaplan, 2018).

The third implication for positive change is within the programs and classrooms seeking to improve recruitment and retention of educators. Supporting the professional preparation of educators within classrooms leads to less staff turnover and greater stability for children (Carver-Thomas, 2018, McMullen et al., 2020; Rogers-Ard et al., 2019). Making pathways to degree completion more efficient and accessible will increase the number of highly qualified educators in the southwestern state and can provide more children in with access to a well-qualified teacher. By investing in educators' professional growth, programs can develop a more committed and skilled workforce, which ultimately benefits both the educators and the children they serve.

The next implication for positive change is an improved perception of the profession, which could result in increased recruitment and retention, increased community investments, and reduced workforce shortages for educators and those in related roles within the early childhood system. Better awareness about the importance of quality early learning experiences could help improve the perception of ECE as

something far more complex and important than just keeping children safe. Advocacy efforts in this area could also increase family trust, support collaborative relationships, and help and improve working conditions for educators (Gibson et. al., 2020, NAEYC, 2020c). An improved perception of the profession can also drive advocacy for increased wages and benefits, recognizing educators' expertise and the role they play in children's development.

The final implication for positive change is the potential to improve the self-efficacy and satisfaction of the individual educators (von Suchodoletz et al., 2018). Increased access to individualized resources and supports can lead to success within career pathways, and greater satisfaction in their chosen profession (Schaack et al., 2020). As educators feel more supported and capable, they are more likely to remain in the field, reducing turnover and providing more consistent care for children. This contributes to the overall quality of ECE environments and benefits educators, children and families, and communities (McMullen et al., 2020).

Conclusion

This qualitative study explored the perceptions of early childhood systems personnel at the high school, community college, university, and state systems levels on ways the early childhood professional development system in one southwestern state could be improved. The early childhood professional development system is a complex system that is dependent on both the functioning of the systems, policies, and structures put in place at the state and institutional level and the interactions and decisions of the individual professionals within each of the systems (Senge, 2006). The recommendations

presented in this study may be useful for systems leaders who are responsible for the recruitment and retention of early childhood educators and are tasked with implementing strategies to reverse the educator shortages and downward enrollment trends in educator preparation programs (Carver-Thomas, 2016; Podolsky et al., 2016; Sutcher et al., 2016). The recommendations also support the creation of a well-prepared, well-compensated, diverse workforce of professionals who reflect families and children they serve (NAEYC, 2020c).

The findings of this study could be used by state agency leaders to streamline policies and procedures and improve the structures within the professional development system. Higher education institutions must work collaboratively to identify degree pathways and remove unnecessary barriers to degree completion including the application of community college coursework at transfer (Fink & Jenkins, 2017). Furthermore, educational leaders throughout the entire system need to identify and equitably offer resources and supports to educators in the completion of degree pathways. Finally, state systems leaders and early childhood advocacy groups must increase efforts to improve the working conditions, wages and compensation, and the perception of the early childhood profession (NAEYC, 2020c).

There is a sense of urgency in the early childhood field to address educator shortages, especially in the aftermath of the COVID-19 pandemic that decimated programs and the workforce (Wiltshire, C.A., 2024). There must be a greater awareness of the needs, responsibilities, and knowledge, skills and dispositions required of early childhood educators and an understanding of why those qualifications demand the respect

afforded to other teaching positions. There has never been a more important time to address and improve the perception of the early childhood profession and to share messages about how early educators and early learning programs are worthy of the large-scale investments at the community, state, and federal levels that are necessary to provide equitable access to high quality early learning experiences for all children and families.

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Appendix A: Interview Protocol

- Introduce self to participant
- Follow the introductory protocol script:
    - Ask participant to orally consent to audio (and/or virtual) recording
    - Thank the participant for their time
    - Briefly restate how long the interview will take and ask participant if they have any questions before beginning the interview
- Turn on the audio recorder
- Begin interview with demographic questions and follow through until the end of the interview questions
- During the interview and upon participant's request, restate or paraphrase questions as needed
- Ask the participant follow-up or probing questions
- State when all questions have ended and end the interview
- Confirm participant's contact information and thank the participant for contributing to the study and stop recording
- End protocol

Introduction Script

My name is Melissa Larson Busby. I am a doctoral student at Walden University working on completing a doctoral degree in Education with a concentration in Early Childhood. I am conducting a research study on perceptions of early childhood system partners to better understand how equity and access, professional milestones and curricula, coursework and field experiences, community partnerships and transfer pathways contribute to future educators obtaining the knowledge, skills, dispositions, and credentials necessary to enter the early childhood teaching workforce (Xu et al., 2018). The results of this study may add information to the current body of literature about early childhood educator preparation and increase understanding about how early childhood systems, structures, and policies related to career pathways could support positive social change for the early education workforce.

Interview Introductory Protocol Script

To facilitate the documentation of the interview, I would like to record our conversation today.Do you agree to being audio and video recorded? Please verbally agree or disagree to the recording. I would like to confirm that I will be the only person with access to the recordings, and I will destroy the recordings five years after the study is complete. You have signed a consent form to meet human subject requirements. The consent form essentially stated: 1) that I will hold all information confidential, 2) your participation isvoluntary, and you may stop at any time, and 3) I do not intend to cause any harm. I appreciate your time and thank you for your participation. I anticipate this interview to last 45-50 minutes. Do you have any questions before we begin?

Participant Background Questions

1. What is your role in the early childhood professional development system? How many years have you worked in the early childhood field?
2. Do you work primarily at the high school, community college, university, or state systems level?
3. On a scale of one to five- with one being not at all familiar and five being very familiar- how familiar are you with the systems, structures, and policies that impact early childhood career pathways and degree completion?
4. On a scale of one to five- with one being not significant and five being very significant- how significant do you think the structure of degree pathways is as a potential barrier to degree completion and contributor to teacher shortages?

Appendix B: Interview Questions

Research Question
RQ: Research Question: What are the perceptions of early childhood systems partners who influence the structures and policies that effect the creation of early childhood degree pathways from the high school to the baccalaureate level on ways career pathways could be improved?
Knowledge, Skills, and Dispositions
IQ 1: What are some factors that contribute to current and future educators obtaining the knowledge, skills, and professional dispositions necessary to enter the early childhood teaching workforce?
IQ 2: What are the different roles of high schools, colleges, universities, and professional development providers in helping early childhood educators obtain necessary knowledge, skills, and dispositions?
Degree Attainment
IQ 3: What are some ways to make college degree attainment more accessible and efficient for a diverse early childhood workforce?
IQ 4: What are some ways to make career pathways from high school through bachelor's degree completion more relevant to the needs of local communities?
IQ 5: Tell me about any challenges or barriers you are aware of regarding college policies or practices that are related to completing an associate degree in early childhood education. • Describe ways these challenges could be resolved.
Transfer
IQ 6: Tell me what you know about the transfer of associate-level coursework into baccalaureate programs. • Do you have any personal experience with the transfer process?
IQ 7: Tell me about any challenges (barriers) early childhood students may experience when they engage in the transfer process. • Describe any actions, policy, or procedural changes that might help students overcome these challenges.
Structures and Policies
IQ 8: Tell me your perspective about how current policies and regulations impact the early childhood professional development system.
IQ 9: How does the structure of early childhood degree pathways (general education courses, developmental coursework, early childhood specific coursework) relate to degree completion? • Describe any changes you think would be helpful.
IQ 10: What are some ways that structures and policies related to early childhood education career pathways might be improved?
IQ 11: Tell me about any structural challenges that you perceive as barriers for the early childhood workforce. • Describe ways to help reduce those challenges or barriers.
Resources and Supports
IQ 12: Tell me about any resources or supports you are aware of that faculty, advisors, or staff offer to support students in navigating the college system. • What resources and supports could be added?
IQ 13: Tell me about any resources or supports you are aware of that are offered through early childhood systems partners or community agencies? • What about colleagues, workplace, and/or social networks?
IQ 14: Describe strategies and supports that could help increase diversity and equity within the early education workforce. • What about strategies to support bi-lingual students?
Closing Question
IQ 15: Is there anything that we have not discussed that you would like to add?
Potential follow-up questions made visible as participants were interviewed:
1. What did you mean by…? 2. Tell me more about…? 3. Would you elaborate on…?