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Tricycles and Trapdoors: A Mixed Methods Study of Exclusionary Discipline in Preschools

By

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Professor Erin Michelle Turner Kerrison, Chair
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Abstract

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Extensive empirical literature demonstrates that exclusionary school discipline (e.g., suspension, expulsion) is a source of persistent educational inequity in the United States. Since the early 2000's, the prevalence and disproportionate impacts of exclusionary discipline have been observed in early care and education settings (e.g., preschools). Policy and practice interventions targeting exclusionary discipline in early childhood contexts are gaining traction at local, state, and federal levels. Yet, absent descriptions of the scope of exclusionary practices and how structural factors relate to practitioner use of exclusionary discipline in preschools, current measures, policy frameworks, and school-based interventions may dismiss a complex architecture of exits from early learning and care. Furthermore, in the context of increasing regulation, it is possible that forms of *extra-exclusionary discipline* proliferate. Guided by a desire-based epistemological stance grounded in womanist anti-carceral praxis and critical theoretical perspectives, I conceptualize extra-exclusionary discipline as the array of methods of exclusion that operate in covert, unconventional, and undocumented ways to achieve the same exclusionary ends as regulated discipline measures.

This mixed methods convergent dissertation, therefore, aims to (a) elucidate a typology of "trapdoor" exits via extra-exclusionary discipline, and (b) explore underlying structural factors that influence these extra-exclusionary outcomes. To meet these aims, this dissertation addresses three research questions using data from a study conducted by an interdisciplinary research team as part of a multi-team, multi-study research-practice partnership between the University of California, Berkeley's Graduate School of Education and a large school district in a large city on the West Coast. Specifically, I investigated (a) whether unmeasured common factors account for variance in measured extra-exclusionary discipline variables; (b) what themes and associated underlying dimensions emerge from interview narratives; and (c) the extent to which themes and associated underlying dimensions cohere between the quantitative and qualitative strands of this study. The target population was 190 individuals who were employed to work professionally with children and families at preschool sites in the school district (e.g., teachers, administrators, staff). The quantitative strand of this dissertation involved conducting exploratory factor analysis on data from a survey experiment (n = 60) with vignettes about "Terrell," a Black boy. The survey sample was majority racially/ethnically minoritized and/or multiracial (83%), female (89%), and teachers (77%), with diverse educational attainment and years of experience in their professional roles in the school district, specifically, and working with children, in general. The qualitative strand of this dissertation involved an integrated analysis of narrative data derived from interviews (n = 24) focused on participants' perspectives and experiences negotiating challenges in their in-person and virtual

classrooms. Similar to the survey sample, the interview sample was majority racially/ethnically minoritized and/or multiracial (88%), female (88%), and teachers (71%), with diverse educational attainment and years of experience in their professional roles in the school district, specifically, and working with children, in general. Merging the quantitative and qualitative results as an integrated framework of "inside-out" perspectives yields a rich description of salient themes of extra-exclusionary discipline and key underlying dimensions.

The results indicate that the quantitative and qualitative strands of this dissertation tell complementary stories that elucidate extra-exclusionary trapdoors and underlying structural factors. First, in the quantitative strand, models with two- and three-factor solutions were sequentially evaluated according to several pre-specified guidelines. The two-factor model, which used principal axis factor extraction and oblique (oblimin) rotation, was the most parsimonious solution and demonstrated acceptable model fit. The results suggest that underlying dimensions of extra-exclusion are distinguished by *correction* and *treatment*. Second, the qualitative results expand an understanding of trapdoor themes and underlying factors, illustrating characteristic dynamism and complexity of extra-exclusionary discipline. Narrative data illuminate five distinct themes, which constitute a typology of extra-exclusionary trapdoors in preschool contexts: *disenrollment*, *early release*, *in-school*, *referral*, and *virtual* measures. Within these themes of trapdoors, underlying dimensions at the child, family, and school levels reveal the complete picture of the implications of a fragmented early education system on fundamental issues of access and inclusion in preschool. Participants' narratives demonstrate that measures of extra-exclusion mitigate "disruptive," "unsafe," and altogether *deviant* children; are sharpened by friction and *distrust* in the family-school relationship; and are cemented by an under-resourced and *disconnected* system. Taken together, participants' narratives illustrate how extra-exclusionary trapdoors and associated underlying dimensions shine a light on precarity spanning every level of the preschool ecological system. Finally, the merged results expand knowledge about the conceptualization and measurement of extra-exclusionary discipline, drafting a sophisticated blueprint of structural and ecological factors concealing trapdoors within a racialized carceral continuum.

This dissertation makes several novel contributions to the knowledge base. Most importantly, it is the first known conceptual and empirical investigation of a typology of covert, undocumented, and unregulated forms of extra-exclusionary discipline and associated underlying dimensions. The primary data collected at multiple timepoints as part of a research-practice partnership implemented during the COVID-19 pandemic is a particular strength of this research. Little is known about the dimensionality of exclusionary discipline amid in-person and distance learning contexts; this dissertation addresses both. Descriptions of extra-exclusionary discipline and associated underlying dimensions add precision to research, policy frameworks, and practice interventions to address a robust architecture of trapdoor exits from early care and education settings. The findings from this dissertation should motivate systems-change partnerships that target hidden, systemic sources of exclusion rather than downstream symptoms of exclusion such as disparities or disproportionalities in discipline outcomes.

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Dedication

All our children are outriders for a queendom not yet assured.
— Audre Lorde, *Sister Outsider*

For Barbara Ann Bookser, my Gigi, and Edna Louise Marr Bielefeld, my Nana.
You are always with me.

For all our children, with love, always.

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This dissertation, and my commitments as a public scholar and educator, are endeared to past, present, and future students.

Thank you to the children, outriders.

Chapter 1: Introduction

The prevalence and disproportionate[1] impact of exclusionary discipline (e.g., suspension and expulsion) among marginalized groups of students in United States public schools is a well-documented phenomenon. Decades of research have shown that racialized Black, Latinx, and American Indian/Native Alaskan students experience exclusionary discipline at disproportionately high rates compared to White students in kindergarten-to-12th-grade (K-12) schools (Losen et al., 2015; U.S. Department of Education, 2019, 2021a). Similar disparities have been found among English learners, LGBTQ+ students, racialized male and female students, students with disabilities, students in foster care, unhoused students, and students qualified for free or reduced-price lunch (e.g., Meier et al., 1989; Noguera, 2003; Skiba, 2000; Skiba et al., 2003; Skiba & Peterson, 1999).

Recent federal estimates from the nation's 97,632 public schools serving 50.9 million students show that Black students and students with disabilities were disproportionately suspended, expelled, and arrested compared to their peers during the 2017-2018 school year (U.S. Department of Education, 2021a). Nationally, Black students represented 15.1% of students enrolled in public schools during the year, but represented 38.2% of students sanctioned with out-of-school suspensions, 38.8% of students who were expelled with educational services, 33.3% of students expelled without educational services, 31.6% of students who were arrested at school, and 28.7% of students referred to law enforcement. Additionally, Black students made up almost half (42.9%) of students who transferred to alternative schools during the year, which are designed for students facing academic and disciplinary challenges. Similarly, students with recognized disabilities served under the Individuals with Disabilities Education Act (IDEA) represented 13.2% of students enrolled in public schools during the year, but represented 24.5% of students who received out-of-school suspensions, 23.3% of students who were expelled with educational services, and 14.8% of students who were expelled without educational services. When disaggregated by race, Black students served under IDEA represented only 2.3% of students enrolled in public schools during 2017-2018, but represented 6.2% of students who received one or more in-school suspension and 8.8% of students who received one or more out-of-school suspension. Despite recent trends suggesting a marginal decline in exclusionary discipline rates at the aggregate, disparities persist between student groups (Losen et al., 2015; Rocque, 2010; U.S. Department of Education, 2021a).

Since 2000, the prevalence and disproportionate impacts of exclusionary discipline have been observed in preschools, early care and education (ECE) settings that serve children between three and five years old. Estimates from Gilliam's (2005) seminal study on this subject indicate that preschoolers are expelled at rates more than three times as great as K-12 students. Further, nationally representative data indicate racialized and disabled children are disproportionately suspended and expelled from preschool (Gilliam, 2005; U.S. Department of Education, 2014a, 2019, 2021a). The most recent data from the 2017-2018 Civil Rights Data Collection survey indicate that Black children represented 18.2% of preschool enrollment during the 2017-2018 school year, but represented 43.3% of children with out-of-school suspensions and 38.2% of children with expulsions (U.S. Department of Education, 2021a). Additionally, children served under IDEA represented 22.7% of preschool enrollment but represented 56.9% of children expelled during 2017-

[1] Variations of the terms "disproportionate" and "disparate" are used throughout the literature to describe instances when a student group was overrepresented among those disciplined compared to their representation in the overall student population, as well as when discipline patterns within groups differed form discipline patterns within other groups. It is important to note that these terms suggest the primary concern is the imbalance of discipline experiences between groups of students. These prevailing foci, however, generally fail to attend to the maintenance of a system of control and punishment in schools.

2018. When disaggregated by race, Black boys were suspended at a rate 2.7 times as great as their White peers in preschool, and though they represented approximately 18% of male preschool enrollment, Black boys comprised approximately 41% of all boys suspended from preschool[2] (U.S. Department of Education, 2021b). Additionally, Black girls in preschool were the only female group where discipline disparities were observed in 2017-2018. Black girls represented 8.6% of total preschool enrollment and represented 9.1% of preschool girls with one or more out-of-school suspensions (U.S. Department of Education, 2021a). The data suggest, in summary, two important points: (a) exclusionary discipline practices in preschool appear prevalent, and (b) race-gender and disability disparities appear similar across ECE and K-12 contexts.

Child development, psychology, and neuroscience research indicates that children's early experiences, relationships, and environments make short- and long-term impacts on their social-emotional, cognitive, language, physical, and health development (Shonkoff & Phillips, 2000; Siegel, 2001). ECE settings are key environments at the nexus of children's formative experiences and relationships. Studies have shown that participation in child care and preschool supports children's school readiness, cognitive development, social-emotional development, and academic outcomes in K-12 (Caughy et al., 1994; Shonkoff & Phillips, 2000; Siegel, 1999). Additionally, early intervention studies indicate that the benefits of high-quality preschool extend beyond individual child outcomes. High-quality preschool is a valuable public investment for long-term social welfare, especially among systematically, socially, and economically marginalized populations (Barnett, 1998; Duncan et al., 2007; Heckman, 2006). Specifically, estimates based on intensive interventions (e.g., Chicago's Child-Parent Centers) and large-scale public preschool programs (e.g., universal preschool in Tulsa, Oklahoma) range from three to seven dollars saved for every one dollar spent (Yoshikawa et al., 2013). These are among the reasons why, at the time of this writing, universal preschool access is a major plank of state and federal policy agendas.

Exclusionary discipline, however, denies children and families access to the promotive potential of early education during the formative period of early childhood. Evidence links children's exclusion from preschool to decreased school readiness and increased likelihood for subsequent exclusionary discipline (Gilliam, 2005; Gilliam & Shahar, 2006; Webster-Stratton et al., 2008). Moreover, exclusionary discipline — and expulsion in particular — burdens families with the responsibility and stress of filling gaps in child care. Exclusionary discipline is also associated with a host of adverse outcomes in adolescence (Advancement Project & Civil Rights Project, 2000; U.S. Department of Education, 2014a).

Discourse on the prevalence and disproportionalities of exclusionary discipline in preschool and K-12 tends to pathologize child factors (e.g., demographics, behaviors, adverse experiences, trauma, disabilities) in relation to exclusionary discipline outcomes. For two decades, however, scholars have shown that child factors alone do not explain variance in exclusionary discipline, motivating inquiries about constellations of ecological and structural factors that account for variance in school discipline. An emerging literature examines how systemic inequities wrought by racism, sexism, ableism, and a climate of zero tolerance influence how teachers and administrators perceive children's behaviors and invoke measures of exclusionary discipline in both preschool settings (e.g., Cyphert, 2015; Gilliam et al., 2016) and in K-12 settings (e.g., Fuentes, 2012; Goff et al., 2014; Okonufua & Eberhardt, 2015; Skiba & Knesting, 2001).

School effects, factors related to school policies, practices, or climates (Raudenbush & Bryk, 1986), dominate K-12 research and intervention. The literature on school effects has established a robust evidence base delineating how school structural, compositional, and organizational factors

[2] These statistics were computed using 2017-2018 Civil Rights Data Collection public-use survey data (updated May 10, 2021) downloaded from the United States Department of Education Office for Civil Rights.

relate to exclusionary discipline. Supportive school leadership, positive staff relations, school climate, schoolwide positive behavior management strategies, and effective academic instructional practices have been identified as key factors to mitigate exclusionary methods (Christle et al., 2005; Gregory et al., 2011; Rausch & Skiba, 2006; Skiba et al., 2014). As a result, federal guidelines, as well as state, district, and school policies, for K-12 have shifted in recent years to allocate time and funding to address exclusionary discipline disparities. This framing has influenced the implementation of varied restorative/transformative alternatives to exclusionary discipline.

Interventions targeting exclusionary discipline in the ECE context are also gaining traction. Evidence marking the prevalence and disproportionate impact of exclusionary discipline on preschoolers has shifted state policies governing public preschool programs (Davis et al., 2020) and federal guidance for Head Start (U.S. Department of Health & Human Services, 2016a). Regulations and guidance generally stipulate that public preschool professionals must use preventive measures to avoid excluding children through suspension or expulsion, document efforts exhausted to include children, and reserve exclusionary discipline only as a last resort in tandem with referrals for families to enroll children in alternative programs.

A growing evidence base also indicates that early childhood mental health consultation (ECMHC), a strengths-based, clinical intervention provided by mental health clinicians who join teachers, staff, and parents in nonjudgmental interest in understanding and assisting a child, may be one key intervention to reduce exclusionary discipline in preschool (Alkon et al., 2003; Duran et al., 2009; Gilliam, 2007; Johnston & Brinamen, 2005). Notably, however, state policies and federal guidelines addressing exclusionary discipline are based on limited evidence about exclusionary discipline in early childhood programs. Moreover, extant recommendations appear to focus on bolstering intervention capacity at practitioner, family, and child levels (e.g., via ECMHC), yet devote less attention to targeting structural dimensions that create conditions for exclusion.

The robust evidence base on school effects in K-12 suggests a need for similarly comprehensive investigations of structural factors of the preschool ecological system that make way for exclusionary discipline. Absent descriptions of the scope of exclusionary practices and how structural factors relate to practitioner use of exclusionary discipline in preschools, current evaluations, policy frameworks, and school-based interventions neglect a complex architecture of exits from early learning and care. Furthermore, in the context of increasing regulation, it is possible that forms of *extra-exclusionary discipline* proliferate. These methods of exclusion operate in covert, unconventional, and undocumented ways to achieve the same exclusionary ends as suspension and expulsion.

Tricycles and Trapdoors: The Current Study

This dissertation is a mixed methods investigation of extra-exclusionary discipline exits[3] from early learning opportunities, which I describe as "trapdoors" in the system of ECE. The current inquiry is organized within a desire-based epistemological stance and framed by critical theoretical perspectives to explore how the forms and roots of extra-exclusionary discipline operate as features — not flaws — of the system of ECE in America. Creating a society with equitable, accessible, high-quality, and joyous preschool programs that love all children relies on (a) understanding the full dimensionality of exclusionary pathways out of early learning opportunities, and (b) using an "inside-

[3] In this dissertation, I posit that an array of exits from preschool exist: "front door" exits (e.g., acceptable passage), "backdoor" exits (e.g., exclusionary discipline such as suspension and expulsion), and "trapdoor" exits (e.g., extra-exclusionary discipline). This conceptualization builds from a terrific idea that Brett Johnson Solomon thought of and shared with me (personal communication, November 12, 2021).

out" approach that centers the testimonies, lived experiences, and knowledges of those closest to the system in order to dismantle structural inequities.

This exploratory dissertation therefore uses a convergent mixed methods design to map the sophisticated blueprint of extra-exclusionary discipline in preschool settings. I focus specifically on the structural dimensions of trapdoors to:

1. Elucidate a typology of "trapdoor" exits that estrange children and their families from preschool;

2. Explore underlying structural factors that influence extra-exclusionary outcomes.

Because extra-exclusionary discipline is a novel problem, preschool teachers, school leaders, and staff are the best sources of information, interlocutors who bear witness to and work within the system of ECE. As experts on the innerworkings of the system, their perspectives illuminate how ideas about deviance and deservingness, correction and treatment, and exclusion and inclusion are (de)constructed and (re)acted upon.

This dissertation uses datasets derived from research conducted by an interdisciplinary team as part of a multi-team, multi-study research-practice partnership between the University of California, Berkeley's Graduate School of Education and a large school district in a large city on the West Coast. The study focused specifically on classroom discipline perspectives among a population of 190 professionals employed to work in the school district's 28 early childhood education programs. The quantitative strand of this dissertation involved using exploratory factor analysis methods on data derived from a survey experiment ($n = 60$) to investigate whether unmeasured common factors account for variance in measured variables indicative of extra-exclusionary trapdoors. The qualitative strand of this dissertation involved an integrated analysis of narrative data derived from interviews ($n = 24$) to identify themes of trapdoors and associated underlying dimensions. The quantitative and qualitative results were merged through a process of narrative comparisons and joint display to reveal the complexity, convergence, and divergence of results. This methodology maps a blueprint of trapdoor exits from ECE.

Next, in Chapter 2, I describe the history, philosophy, and organization of ECE. This chapter sets a backdrop for analyzing dimensions of trapdoors in contemporary ECE settings. In particular, I review the transformation of ECE in the context of the American welfare state, with particular attention to how the design and provision of ECE was undergirded by stereotypical ideas about race, gender, and class.

In Chapter 3, I review the landscape and scope of school discipline in contemporary American society, spanning school discipline in K-12 settings and in early childhood settings. I also review evidence about potential sources of variation across the early childhood ecology that may explain, at least in part, disparities in school discipline. Further, I describe what is known about the short- and long-term consequences of exclusionary discipline, as well as how state and federal agencies are guiding stakeholders to respond to school discipline disparities in early childhood contexts. This chapter concludes with the three research questions addressed by this dissertation.

In Chapter 4, I engage a Foucauldian theorization of the carceral continuum in conjunction with Critical Race Theory to animate extra-exclusionary trapdoors in a context of structural racism and a carceral state. This chapter also describes "inside-out" approaches to knowledge production under a heading of desire-based epistemology and womanist anti-carceral praxis in education.

Anchored in the historical, philosophical, empirical, and theoretical contexts set by preceding chapters, Chapter 5 describes this dissertation's design and methodology. The goal of the mixed

methods convergent design was to develop a complete understanding of extra-exclusionary trapdoors and underlying structural factors.

Chapter 6, Chapter 7, and Chapter 8 present results that address the quantitative, qualitative, and mixed methods research questions, respectively. In Chapter 8, specifically, I engage a process of triangulation and integration to identify common concepts and salient themes of extra-exclusionary discipline and underlying dimensions that are consistent across the quantitative and qualitative results. In addition, I discuss evidence of divergence and dynamism across concepts. Taken together, the integrated framework of preschool professionals' "inside-out" perspectives yields a robust description of trapdoor exits.

Finally, in Chapter 9, I delineate the implications of this dissertation with an eye toward future research, policy, and practice. This dissertation makes conceptual and empirical contributions to interdisciplinary social science literatures. The findings should add precision to theoretical and measurement approaches and generate ecological models for systems-change partnerships. Future collaborative systems-change efforts should target embedded structural sources of exclusion rather than downstream symptoms of exclusion such as disparities or disproportionalities in discipline outcomes.

Chapter 2: Background

This chapter sets the scene for the literature review by discussing the history, philosophy, and organization of ECE in the context of the transforming American welfare state, with particular attention to ways that the design and provision of ECE was undergirded by stereotypical ideas about race, gender, and class.

Early Care and Education and the Transforming Welfare State

From the colonial period through the early 20th century, the emerging welfare state was predominantly concerned with addressing the needs of poor White colonists and immigrants. In the late 18th and early 19th centuries, White mothers risked being separated from their children when they applied for poor relief, specifically because poor widows and single women were typically incarcerated for work in almshouses and their children were sent elsewhere. In what are considered the best of these circumstances, mothers and children "might be assigned to different boarding arrangements or institutions," and worse, "children — some as young as five or six — might be 'bound out' as indentured servants or workers" (Michel, 1999, p. 19). The indentured labor of poor children was prevalent in the late 1700's because it "not only freed institutions and guardians of the poor from further financial responsibility for a child but also fit reformers' belief that learning a useful trade would inoculate an individual against future pauperism" (Michel, 1999, p. 19).

In this context of family separation as poverty intervention, the House of Industry, a poorhouse in Philadelphia established in 1798 by charitable Quaker reformers from the Female Society for the Relief and Employment of the Poor, provided the earliest institutional care for children in America (Michel, 1999). On-site child care at the House of Industry mitigated the common practice of family separation among White colonists and immigrants because women had opportunities to earn wages without the cost of losing their children. The logic of the House of Industry was to bring poor White women together under one roof "where they could be fed, warmed, and supervised more economically and efficiently — and where their children could be cared for separately" (Michel, 1999, p. 21). To the charitable reformers, the benefits of housing mothers and children together under one roof were twofold: (a) mothers were more productive when their children were cared for, and (b) the reformers could correct what they believed were depraved influences and attributes associated with poverty.

In the 19th century, child care emerged as an opportunity and a responsibility for reformers. Prevailing ideas held that children of the poor were especially vulnerable to depravity. Therefore, reformers contended that children needed out-of-home nurturance, protection, habits, and virtues that would protect them from "following their parents down the path to poverty" (Michel, 1999, p. 22; see also, Beatty, 1995). In 1816, Robert Owen, a utopian Scottish industrialist and wealthy cotton mill owner, developed the first infant schools in Great Britain (Bradburn, 1966; Michel, 1999). The purpose of infant schools was (a) to enable poor mothers to work, and (b) to train children in what were perceived to be good habits and virtues. The guiding tenets of Owen's philosophy on infant schools were that children's parents could not ensure circumstances for "good" character development in the context of poverty, and that human nature was plastic, sensitive to wider social and environmental contexts (Leopold, 2011). Owen conceived of infant schools as a mechanism to "change human nature" and build a cooperative, egalitarian future society (Bradburn, 1966, p. 57). Soon, a group of English reformers adopted Owen's concept of the infant school, founding the Infant School Society in 1824. The Infant School Society established 55 schools throughout Great Britain by 1885. Therein, infant schools became a popular mechanism for poor reform.

Infant schools were established in the United States in the late 1820's under the same ideological premises as British infant schools. Early American infant schools were conceived of as

measures to alleviate the industrial conditions that contributed to poverty. By the 1830's, infant schools were established in Boston, Hartford, New York, Philadelphia, and Richmond, as well as smaller towns near these cities. During this era, the schools were predominantly charitable institutions with increasingly secular philosophies that emphasized rehabilitation and moral rectitude (Michel, 1999). Enrollment was restricted to children of the poor, including African American children who were served in segregated infant schools in Boston and Philadelphia, for example. Jacobs et al. (2020) highlight how social reformers during the Progressive Era were fixated on controlling and rooting out depraved "traits" from society, including "being unmarried, diagnosed with a mental illness, and being Black" (p. 39).

Nursery schools, the predecessors of preschools, emerged in the United States during the Progressive Era. According to Liebovich (2016), "the educational issue at the time was not only that young children were experiencing health and educational challenges but also that the children were not being nurtured by women who understood child development socially, emotionally, or academically" (p. 93). Nursery school leaders sought to distinguish the philosophy and practices of nursery schools from those of day nurseries because "they feared that association with these 'custodial' institutions would not only discourage the middle-class clientele they were hoping to attract but would also cast suspicion on the lofty educational benefits nursery schools purported to offer" (Michel, 1999, p. 113). Abigail Adams Eliot, a social worker at the Children's Mission in Boston, established the first nursery school, Ruggles Street Nursery School, in 1922 after she studied at the Rachel McMillan Nursery and Teacher Training Centre in London (Liebovich, 2016). Eliot's principal goal was to ensure that well-trained teachers supported children's health and education (Liebovich, 2016), assuming that poor mothers lacked requisite means and knowledge to care for their children without intervention.

In the late 19th and early 20th centuries, philanthropic and professional organizations emerged to address the care and education of young children. The National Association of Colored Women (NACW) was established by leading Black female philanthropists, including Mary Church Terrell. A suffragist, Terrell used "effective persuasion to sensitize Whites to the unequal treatment" of African Americans (Peebles-Wilkins & Francis, 1990, p. 98). Terrell was chiefly concerned with gender equality, family issues, and early childhood. As the first president of the NACW, Terrell saw child care as an imperative cause for the organization (Michel, 1999). Beginning in the 1890's, the NACW and its local affiliates established "urban day nurseries" for African American children, and their efforts were prominent in the American South (Michel, 1999, p. 67). Because maternal employment was seen as "a fact of life" for African American women, the NACW advocated for child care as a way to protect children while their mothers worked (Michel, 1999, p. 67).

As nursery schools became more prevalent nationally, Abigail Adams Eliot was one of the leaders who established the National Association for Nursery Education (NANE) in 1926. Eliot and other members of NANE worked to advise the federal Works Progress Administration (WPA) in 1933 to create jobs for teachers and provide funding for nursery schools to serve poor children and families. In 1964, NANE became the National Association for the Education of Young Children (NAEYC). Today, NAEYC has close to 100,000 members and it is the largest ECE professional organization in the world (NAEYC, 2022).

Michel (1997, 1999) delineates how varied social provisions that had emerged in the 19th century private sector became 20th century public responsibilities during the Progressive Era and the New Deal. Major developments in government-sponsored child care arose under the New Deal through the WPA's Emergency Nursery Schools program, and then later, through the Lanham Act during World War II (Michel, 1997).

The Contemporary Policy Context of Early Care and Education

By the mid-20th century, federal policies effectively bifurcated child care in a public-private pattern, a dichotomized design that persists today (Michel, 1997, 1999). This public-private pattern is reinforced by "the perpetual separation and basic false dichotomy between the *caregiving* (child care) and *educational* (nursery schools and kindergarten) elements of early care and education" (Ranck, 2013, p. 103, italics original).

In 1954, as a means to improve "parent choice," Congress approved the Child and Dependent Care Tax Credit, a federal program that mainly benefited middle- and upper-income families and influenced the proliferation of ECE services in the private sector. Later, during the War on Poverty in the 1960's, federal funds were released for child care as a mechanism to reduce dependency on welfare, conditioning access to publicly-funded child care on work requirements for parents from poor and low-income families (Michel, 1997). The Social Security Amendments of 1962 and 1967 codified this program's purpose to "rehabilitate" and "refer" mothers for employment (Michel, 1997, p. 128). Additionally, during this era, tangible policies proliferated, including Head Start, the Elementary and Secondary Education Act, acts on child nutrition, and acts on community coordinated child care programs (Ranck, 2013).

In the 1970's, the ECE policy context signaled a strengthened federal focus on the private sector. Amendments to the Social Security Act during Nixon's administration included the Education for All Handicapped Children Act, funds for prevention and treatment of child abuse, and funds for child care, which became part of the Social Services Block Grant in 1981. The link between child care and poverty became more sensitized throughout the 1980's and 1990's, when federal policies used child care as a lever for mandatory work among poor mothers in the face of social anxiety about so-called "welfare queen" abuse of social provisions. In 1996, the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) profoundly changed federal child care assistance programs for low-income families. PRWORA eliminated federal child care entitlements and consolidated major sources of federal child care subsidies for low-income children into a single block grant to states, the Child Care Development Fund (CCDF). The CCDF block grants engender more flexibility for states to streamline child care assistance programs to fit their state-specific needs and goals.

Decades of federal legislative activity from the Eisenhower administration through the Obama administration (1950's to 2010's) "presented the emerging view of early care and education as a legitimate benefit for all families, rather than as a correction of a deficit family configuration" (Ranck, 2013, p. 132). ECE programs proliferated under expectations they would promote children's school readiness and contribute to closing achievement gaps between socially and economically disadvantaged children and their more advantaged peers (e.g., Heckman, 2006). Yet, as federal policy efforts refrained from establishing a universal system of ECE, publicly-funded preschool continued to be linked with poverty and low-income families, and "by and large, policymakers and the American public have not viewed the care and education of young children as a profession" (Ranck, 2013, p. 103). In contrast to K-12 public education, child care and preschool is not seen as a social right for every citizen (Michel, 1999). Ranck (2013) links the "pervasive reluctance, resistance, and refusal to develop and support a universal early care and education system" to gender stereotypes, suggesting that "Americans view the roles of men and women as fathers and mothers," and the roles have a "connection to paid employment and to the rearing of their children," respectively (p. 113). Specifically, Ranck (2013) asserts:

> To expect, for example, that enactment of laws providing for the education of elementary school-age children (Elementary and Secondary Education Act of 1965 (P.L. 89-10)) will lead to similar legislation for much younger children misses the key difference between the

> two age groups in the views of most adult Americans. The difference is neither fiscal nor political; it is ultimately a matter of identity. (p. 114)

Despite a long history public concern over child welfare, and a robust evidence base about early education, a system of universal ECE that is organized and supported by the federal government does not yet exist. The Biden administration's 2021 Build Back Better agenda was a major step in this direction, with social spending initiatives targeting child care, universal prekindergarten, and paid family leave. Yet, the agenda was blocked in the Senate, stalling forward progress at the federal level.

Variations in Types of Programs and Funding Structure

There seem to be an "ever-expanding number of early care and education program types that have appeared over the past two centuries, almost always in separate categories based on various reasons for creating silos of early care and education" (Ranck, 2013, p. 100). Preschools operate on part-day or part-week schedules, though many preschools serve children of working parents for longer hours and provide wraparound child care (Magnuson et al., 2005). There are several types of programs that offer preschool (or preschool-equivalent) early education to children, including Head Start, prekindergarten, home-based programs, and private programs such as Montessori or Waldorf schools.

Pianta et al. (2009) contend ECE is structured as a highly variable "nonsystem." That is, policies that determine funding structures, governance, and administrative supports vary at local and state levels, and "the internal distinctions between programs are tied closely with the socio-economics of early care and education" (Ranck, 2013, p. 102). Federal and state funding for early childhood services, for example, are available through "a complex maze of funding streams and government agencies" (Administration for Children and Families, 2014, p. 1). Despite the lack of a cohesive system of ECE, a combination of federal and state-level funding has helped expand public ECE settings such as Head Start. To provide preschool programs, states tend to utilize a mixed service delivery system composed of early care and education settings in local areas, yet the challenge in creating these systems is that preschool programs traditionally differ in governance, funding, and program standards (Ryan et al., 2011).

ECE programs in America operate through a complex matrix of funding structures. *Publicly-funded preschools* are programs funded by federal, state, and/or local revenue sources. Publicly-funded preschools are beholden to state legislation and oversight. According to Gilliam and Zigler (2000), in many states, formal evaluation of program implementation and impact is mandated in the state legislation authorizing preschool programs funded by the state. Publicly-funded preschools have become prevalent across the United States in recent decades (Gilliam & Zigler, 2000). *Prekindergarten programs*, which provide one to two years of education for children prior to kindergarten, are funded by public school systems (Magnuson et al., 2005). Many states appropriate funds from more than one source to fund prekindergarten (Parker et al., 2018). Excluding a few states that operate universal prekindergarten programs (e.g., Vermont, Florida), prekindergarten programs are "specifically targeted to children 'at risk' of educational difficulty because of poverty, limited English proficiency, or a disability" (Magnuson et al., 2005, p. 12). *Privately-funded preschools* are for-profit or not-for-profit programs that are funded through private revenue streams, typically generated by charging families a fee for children's attendance. According to Magnuson and Waldfogel (2005), the majority of children in preschool or center-based child care attend private programs. Privately-funded preschools also tend to have unique application and admissions processes. It is important to note that low-income and working parents may receive subsidies or tax provisions that offset some of the costs associated with private programs (Magnuson & Waldfogel, 2005). Specifically, block grants administered to states through the CCDF and Temporary Assistance for Needy Families

(TANF) can be used to subsidize care in private center-based programs for low-income children. CCDF and TANF subsidies are generally funded through direct contracts with private programs or reimbursements for services. Of families who are income-eligible under federal rules, an estimated 15% to 20% receive subsidies in most states and the share of these families who use center-based care varies widely by state (Magnuson et al., 2005). Finally, *mixed-funded preschools* are center-based programs funded through a mix of private funding (e.g., social impact bonds, tuition) and public revenue streams (e.g., federal Preschool Development Grants, competitive state funding).

The general expansion of ECE settings increased children's access to and enrollment in programs. In 1980, only 10 states allocated funding for public preschool programs (Gilliam & Shahar, 2006). Pre-COVID-19 records from the 2018-2019 school year indicate publicly-funded preschool programs were offered in all states and territories except for six (Idaho, Indiana, New Hampshire, South Dakota, Utah, and Wyoming), which funded programs through a combination of federal, local, and private sources (Friedman-Krauss et al., 2020). Federal funding for child care assistance fell from $8 billion in 2008 to $5.3 billion in 2014, but federal funding for Head Start and Early Head Start increased from $6 billion in 2008 to $8.6 billion in 2014 (Administration for Children and Families, 2014). Publicly funded prekindergarten remained relatively stable between 2008 and 2014, at over $5 billion, which included funds administered by states for regular prekindergarten education exclusive of special education funds for children with disabilities (Administration for Children and Families, 2014). According to Friedman-Krauss and colleagues (2020), total state funding for preschool programs exceeded $8.75 billion during the 2018-2019 school year after adjusting for inflation. Inconsistencies in funding structures over time, however, reflect and reproduce inconsistencies at the organizational level.

School structural factors encompass institutional characteristics such as type of control or orientation of schools (e.g., public or private), school size (e.g., student enrollment), and resources (e.g., funding), and location. These factors have been shown to shape school effectiveness (Rumberger, 1995) and academic achievement (Stewart, 2008). Magnuson and Waldfogel (2005) posit that structural factors are indicative of the quality of early care and education. There is considerable variation within and across programs in structural factors such as standards, schedules, monitoring, accountability, and staffing from year to year (Friedman-Krauss et al., 2020). Pianta et al. (2009) contend the fragmented "nonsystem" of ECE is reproduced in fragmented experiences for children and families, especially those from economically disadvantaged and socially, culturally, and linguistically diverse backgrounds.

Contemporary Trends in Access and Participation

ECE programs exist in every state in the United States to serve children from birth to age five (National Center for Educational Statistics, 2019). The key aims of ECE programs are to nurture skills-development across cognitive, social, emotional, physical, and self-help domains that will prepare children for formal schooling, as well as to support "at-risk" populations (Pianta et al., 2009). ECE programs proliferated during the second half of the 20th century, largely due to policy milestones that secured federal funding for public education during President Lyndon B. Johnson's War on Poverty in the 1960's (Beatty, 1995). For example, Head Start was established in 1965 as part of a federal project to improve access to early care, health and nutrition, and education opportunities among socially and economically disadvantaged preschool-aged children (Beatty, 1995; Zigler & Styfco, 2010). Nearly three decades later, in 1994, Head Start expanded to include Early Head Start, a publicly-funded system serving children from birth to age three (Zigler & Styfco, 2010). Head Start and Early Head Start have provided researchers with tremendous insights about publicly-funded early education for children from birth to age five. Experimental and quasi-experimental studies of Head Start programs have found that children's participation in high-quality ECE is associated with

positive developmental outcomes (Barnett et al., 2007; Gormley & Phillips, 2003). Mounting evidence contributed to continued federal investments, which supported scaling Head Start to over 3,000 programs throughout the latter half of the 20th century and establishing collaboration offices across all 50 states by 1998 (U.S. Department of Health & Human Services, 2019).

The expansion of ECE settings saw increases in children's access to and participation in programs. Nationally, 37.5% of children ages three to five years old were enrolled in preschools in 1970 (U.S. Department of Commerce, Census Bureau, 2017). Over the next three decades, enrollment increased steadily to 64% of children ages three-to-five by 2000 (U.S. Department of Commerce, Census Bureau, 2017). Preschool enrollment has remained stable at 64.6% of children ages three-to-five since 2000 (U.S. Department of Commerce, Census Bureau, 2017). This translates to over 1.5 million children attending preschool each year (Friedman-Krauss et al., 2019; U.S. Department of Education, 2021a). According to the National Center for Education Statistics (2019), approximately 42% of three-year-olds, 66% of four-year-olds, and 86% of five-year-olds were enrolled in prekindergarten programs in 2017. Altogether, the majority of children younger than five years old have received routine care and education from non-relatives and/or center-based programs in recent decades.

Early Care and Education Quality

The *quality* of ECE programs moderates children's school readiness and later academic success. Although ECE programs hold promise to prepare young children for formal schooling (Barnett, 1998; Duncan et al., 2007), enrollment in preschool alone is not sufficient to close "the skills gap at school entry" (Pianta et al., 2009, p. 51). High-quality ECE emphasizes a "child-centered approach to raising children, with caring adults who are kind and gentle rather than restrictive and harsh and who protect children's health and safety, while providing a wealth of experiences that lead to learning through play" (Cryer, 1999, p. 39). Studies have shown that all children benefit from high-quality early childhood education (Barnett & Masse, 2007). High-quality ECE is associated with increases in achievement test scores, social and emotional development, overall educational attainment, and adult earnings, as well as decreases in rates of grade retention and special education placement in formal schooling (Pianta et al., 2009).

Children from low-income families tend to demonstrate greater cognitive and developmental gains from high-quality preschool education than their more advantaged peers (McCartney et al., 2007). According to Caughy and colleagues' (1994) analysis of longitudinal data drawn from 867 five- and six-year-old children in the National Longitudinal Survey of Youth, participation in high-quality ECE in the first three years of life served as a "protective factor" and supported cognitive development in math and reading among low-income children. Moreover, cost-benefit analyses have shown that the potential benefits of high-quality ECE are large relative to costs, even for high-cost preschool programs (Barnett & Masse, 2007; Temple & Reynolds, 2007). Educators, policymakers, and scholars have publicized the benefits of high-quality early childhood education and worked to expand these programs to support children's school readiness and academic outcomes (Friedman-Krauss et al., 2019; U.S. Department of Education, 2015).

School readiness is of special concern to children's access to and opportunities in ECE programs, as well as longitudinal academic outcomes. Within the process of early childhood development, it is important for children to "recognize themselves as social actors within their communities, learning about their identities and roles as members of their families, peer groups and neighborhoods" (Raver & Zigler, 1997, p. 364). *School readiness* refers to an individual child's readiness for school, a school's readiness for children, and the ability of family and community members to support early childhood development (High et al., 2008). Webster-Stratton et al. (2008)

define school readiness as a framework situating children's emotional self-regulation, social competence, and absence of behavior problems in context with parent-teacher involvement.

Variation in Program Quality

ECE program quality is far from uniform. Most preschool classrooms are average or poor-quality nationwide (Yoshikawa et al., 2013). Research has shown that several organizational variables relate to differences in program quality. Pianta et al. (2009) identify that ECE quality varies across numerous characteristics, including program eligibility criteria, group or class size, adult-child ratios, minimum qualifications for teachers, additional services available to children or families, length of the school day (e.g., part-day or full-day programming), curriculum and pedagogy, teacher salaries and professional development opportunities, and whether/how child learning is assessed. Moreover, the elements of ECE quality can also vary widely within and across programs or types of programs (Pianta et al., 2009).

The quality of early care, especially in publicly-funded programs, has long been the subject of research and intervention. In the Cost, Quality, and Child Outcomes Study, which examined 401 child care centers across California, Connecticut, Colorado, and North Carolina, ratings of "poor" quality were applied to preschool programs where there was no observed encouragement of learning and no observed warmth or support from adults (Helburn, 1995). One of the remarkable conclusions from the study was that most child care was poor enough to interfere with children's emotional and cognitive development. In addition, poor-quality care appears to especially impact children when they are in vulnerable or disadvantaged positions (The National Institute of Child Health and Human Development (NICHD) Early Child Care Research Network, 1997). According to Barnett et al. (2013), African American preschoolers are least likely to have access to high quality early care programs and education. Furthermore, preschool-aged Latinx children are least likely to be enrolled in preschool or child care, not because of differences among Latinx families in cultural attitudes or preferences toward ECE, but because of a lack of information and unequal access to ECE programs (Barnett & Yarosz, 2007 and Espinosa, 2007, cited in Pianta et al., 2009). Thus, research, program development, and public policy initiatives are focused on quality improvement and enhancing protective factors associated with high-quality ECE so that children are "school-ready" and better prepared for K-12 education (Moorehouse et al., 2008).

Quality Monitoring and Improvement

Preschool program quality is of key importance to national monitoring bodies. The National Institute for Early Education Research (NIEER) at Rutgers University produces one of the most comprehensive and consistent reports on the landscape of publicly-funded preschool each year (e.g., Friedman-Krauss et al., 2020). These annual reports track publicly-funded preschool access, resources, and quality at national and state levels. NIEER consistently highlights how the instability of federal funding for preschool requires that states invest in high-quality preschool at the risk of otherwise "leaving too many children behind" (Friedman-Krauss et al., 2019, p. 5). NIEER acknowledges that "public policies cannot directly control quality, but they can specify program features and state operations that support classroom quality" (Friedman-Krauss et al., 2019, p. 13). Therefore, NIEER identified 10 essential features common in highly effective, high-quality preschool programs that can be determined by public policy. For each of the 10 features, NIEER set a "benchmark" to be addressed through policy: (a) clear and appropriate expectations for learning across multiple domains; (b) curriculum support; (c) teacher degree requirements (e.g., B.A. degree at minimum); (d) specialized training for teachers; (f) professional development opportunities for staff; (g) a maximum class size of 20; (h) a staff-to-child ratio of one-to-10, though lower is even better; (i) health screenings and referrals for children; and (j) the institution of an effective

continuous quality improvement system that operates at the local and state levels. NIEER contends the 10 benchmarks represent a set of minimum policies to support quality improvement and child outcomes. However, the benchmarks alone do not predict success. Other factors, such as adequate funding and implementation of policy and practice, interact with the quality of preschool programs (Friedman-Krauss et al., 2019).

Quality improvement efforts are also a key focus of the NAEYC, which is — in addition to its formation as a professional membership organization — an accrediting body for preschool programs in the U.S. In a similar vein as NIEER, NAEYC (2022) defined 10 standards of quality as part of their preschool program accreditation process. The standards include: (a) positive relationships among all children and adults; (b) appropriate curriculum; (c) appropriate and effective teaching approaches; (d) ongoing assessment of child learning and development; (e) promoting good nutrition and child health; (f) availability of teacher and staff supports; (g) collaborative relationships with families; (h) positive relationships with community agencies and institutions; (i) safe and healthy environment, and (j) effective implementation of policies, procedures, and systems at the program-level. By and large, NAEYC's standards are similar to NIEER's benchmarks, but one important difference between them is that NIEER is policy-focused and NAEYC is practice-focused.

Summary

In sum, contemporary phenomena in ECE must be situated within historical, philosophical, and organizational frames. This chapter broadly reviewed these dimensions of ECE, with finer points on the transformation of ECE in the context of the American welfare state. In the next chapter, I review empirical and grey literatures to establish an understanding of the scope and landscape of contemporary school discipline in the United States, with particular attention to the knowledge base on exclusionary discipline in ECE settings and potential sources of variation therein.

Chapter 3: Literature Review

In this chapter, I review the landscape and scope of school discipline in contemporary American society. First, I review empirical literature on school discipline in K-12 settings. Second, I review empirical and grey literatures on exclusionary discipline in early childhood settings. Third, I unpack potential sources of variation across the early childhood ecology that may explain, at least in part, disparities in school discipline. I also describe what is known about the short- and long-term consequences of exclusionary discipline, as well as how state and federal agencies are guiding stakeholders to respond to school discipline disparities in early childhood contexts. Finally, this discussion leads to the three research questions that drive this dissertation.

Trends in K-12 Research

The knowledge base on exclusionary discipline largely stems from research in K-12 settings, which are distinct from ECE settings, yet the most direct comparison available. Exclusionary discipline is designed to achieve three goals: (1) remove "offending" students, (2) provide temporary relief to teachers and school administrators, and (3) call the attention of parents and caregivers (Dupper et al., 2009). Exclusion is "the most common and serious discipline response to student misbehavior," even though extensive research indicates there is little evidence it is associated with a reduction or elimination of problematic behaviors (Theriot et al., 2010, p. 13). In addition to exposing disparities in the prevalence of exclusionary discipline among subgroups of students, numerous studies show exclusionary discipline is a fundamentally ineffective means to promote learning or compliance (e.g., McFadden et al., 1992; Skiba & Knesting, 2001; Skiba et al., 2014).

Apart from involvement with school or local police, *expulsion* is the most severe disciplinary action that an educational institution can take in response to students, resulting in permanent exclusion from any educational programming in the school system, including ECE settings (Gilliam & Shahar, 2006). *In-school* and *out-of-school suspensions* from ECE and K-12 are slightly less severe, as they require temporary exclusion for a specified time period, ranging from days to weeks, before a student can return to their classroom or educational program (Gilliam & Shahar, 2006). In theory, the severity of exclusionary discipline matches the severity of student infractions.

Estimates from the 1997 National Longitudinal Survey of Youth, a study conducted at the height of zero tolerance policies in American public schools, indicated one in three students would be suspended at some point between kindergarten and 12th grade (Shollenberger, 2015). More recently, federal estimates from the 2011-2012 school year indicated nearly 3.5 million public school students received out-of-school suspensions and 1.55 million were suspended at least two times (Morgan et al., 2014). These frequencies represent approximately 3% to 7% of all students in public education. Though it appears that only a small proportion of the K-12 population is affected by exclusionary discipline from year to year, rates are notably higher among minoritized subgroups of students. This pattern reflects a national discipline gap that has been documented since the 1970's (for review, see Gregory et al., 2010; Losen et al., 2015), characterized by "ubiquitous racial and ethnic disparities in school discipline" (Skiba et al., 2011, p. 85).

Patterns of disproportionate exclusionary discipline are well documented among Black, Latinx, and American Indian/Native Alaskan students, as well as English learners and students with disabilities in K-12 (U.S. Department of Education, 2014a). Mounting federal data indicates that White students are consistently and disproportionately under-suspended while Black and American Indian/Native Alaskan students are consistently and disproportionately over-suspended proportionate to subgroup representation in total enrollment. Though recent data suggest school discipline rates appear to be falling at the aggregate (e.g., U.S. Department of Education, 2021a), trends in recent decades shows that school discipline rates have increased for all racialized groups —

far more sharply for racialized students and especially Black students over time (Losen et al., 2015; Rocque, 2010).

A simple interpretation of discipline disparities is that some groups of students are more likely than others to transgress in ways that warrant the severe consequences of exclusionary discipline (Rocque, 2010). This line of reasoning, however, is not supported by research. A wealth of evidence indicates that racialized students, Black students in particular, are punished more frequently than their peers for subjective reasons such as "disrespectful" behavior, classroom "disruption," "willful defiance," and the aesthetics of their hair or clothing (e.g., Ferguson, 2000; Kafka, 2011; Morris, 2016; Scott et al., 2017; Skiba & Peterson, 1999; United States Government Accountability Office, 2018). Policy and clinical developments during the 1980's and 1990's targeted Black youth under premises of countering "delinquency" (Hinton, 2016) and "disobedience" (Ferguson, 2000). The American Psychiatric Association, for instance, created criteria to assess behaviors perceived as "defiant" as evidence of a clinically diagnosable disorder, Oppositional Defiant Disorder (Ferguson, 2000). According to Morris (2016), "schools that approach learning as an exercise in classroom management are often preoccupied with discipline — exclusionary discipline, to be exact" (p. 83). In her book, *Pushout: The Criminalization of Black Girls in Schools*, Morris (2016) documented poignant cases of Black girls who experienced "school-to-confinement pathways" in high school (p. 12). Morris (2016) used the phrase "school-to-confinement" instead of "school-to-prison" to illustrate the confluence of factors that influence Black girls' risks of social and educational confinement within and outside of carceral institutions. Black girls are more likely to experience exclusionary discipline for subjective reasons, such as "talking back to a teacher, cursing, or being 'loud' in ways that are interpreted as disruptive to the classroom" (Morris, 2016, p. 84; see Blake et al., 2011).

Procedures for exclusionary discipline in K-12 settings are defined in school and district policies that adhere to state and federal laws. States and school districts have the authority to monitor and control student behavior on school property and at school-sponsored events by using "reasonable school disciplinary suspensions and expulsions" (Brady, 2002, pp. 168-169). Courts have upheld school disciplinary authority, even when it may infringe upon students' constitutionally protected rights, because disciplinary actions are reasoned to promote the educational interests of students. Furthermore, schools are situated *in loco parentis*, or "in the place of the parent," such that teachers and principals have the authority to employ discipline as needed to attain educational objectives. Thus, school districts have a heightened level of discretion to use exclusionary discipline. The historical record shows public schools exercise broad authority when disciplining students, generally unrestricted by due process (Brady, 2002). Beginning in the 1960's, however, federal courts began to rule in favor of requiring due process for students expelled from school, instituting the Due Process Clause in cases about expulsion. Thus, the implementation of school discipline under due process ensures that students maintain their basic legal rights under the U.S. Constitution, as well as rights under federal and state statutes, including additional protections under Section 504 of the Rehabilitation Act of 1973 and IDEA (Brady, 2002).

Trends in Early Childhood Research

The phenomenon of exclusionary discipline in early childhood first garnered national attention in the early 2000's through media about extraordinary cases of expulsion. News coverage reported that children were expelled from ECE programs for behaviors such as biting or tantrums. Empirical work also emerged at this time.

The first known assessments of preschool expulsion, characterized as "dismissal," were conducted by four research teams across seven counties in Michigan between 1997-2000 on behalf of the Michigan Department of Education (Mueller & Larson, 2001). Survey responses from preschool and daycare directors in Wayne County indicated 41 children were dismissed from

programs due to behavioral problems during the 1997-1998 school year (Grannan et al., 1999). The researchers' analyses indicated an estimated rate of 2.75 dismissals per 100 children enrolled in preschools and daycares in Wayne County. Across counties in Michigan, 7% to 10% of children were identified with behavior concerns, 1% to 4% of children were identified as "at risk" of expulsion from preschool, and 2% to 2.75% of children were expelled. The county-level research out of Michigan provided a key first insight into the nature of "risk" of exclusion from ECE programs, yet it lacked descriptive nuance about reasons for exclusion, the characteristics of "dismissal" procedures, and the populations of children and families affected.

In 2005, Walter S. Gilliam of Yale University's Edward Zigler Center in Child Development and Social Policy (formerly the Yale Child Study Center) published the first nationally representative study on preschool expulsion. Gilliam (2005) examined expulsion rates across classrooms from all 52 state-funded prekindergarten systems in 40 states in the United States. The study used random selection of prekindergarten classrooms at the state level and included 3,898 classrooms out of 4,812 selected, an 81% response rate. Data was collected through a survey administered over the phone by a trained member of Gilliam's research team. The survey relied on teacher self-reports to determine the number of children who were expelled due to behavioral concerns in the previous 12 months. Gilliam found that at the classroom level, 10.4% of teachers reported expelling children in the previous school year. Analyses indicated 6.67 children were expelled for every 1,000 children enrolled in preschool nationwide. This finding revealed that expulsion was more prevalent across preschool contexts than across all of K-12: nationally, preschool expulsion rates were 3.2 times as great as K-12 expulsion rates. The study also found that expulsion rates varied between states. Rates ranged from a high of 21.1 expulsions per 1,000 preschoolers enrolled in New Mexico to a low of 0 expulsions per 1,000 preschoolers enrolled in Kentucky and Hawaii.

Gilliam's (2005) study was particularly important because it found that, in general, expulsion was used widely but enforced inconsistently. In fact, Gilliam (2005) reported that expulsion rates could be parsed out by children's demographic characteristics to suggest preschoolers who were "most at risk" (p. 1). Boys were more than four times as likely to be expelled as girls, and African American preschoolers were twice as likely to be expelled as European American preschoolers. In addition, expulsion rates were approximately 50% greater for children who were four years old compared to three years old, and children who were five to six years old were expelled at rates twice as high as children who were four years old. The study also found that types of settings mattered: faith-based, for-profit child care, and other community-based settings were more likely to report expulsions. Lastly, preschoolers who experienced expulsion once were more likely to be expelled again, suggesting increased probability for exclusionary discipline in later schooling. Gilliam's was a landmark study about the landscape of preschool expulsion at a national level. Yet key questions remained, particularly regarding mechanisms of decision-making among teachers and administrators.

In 2007, the North Dakota State Data Center at North Dakota State University and North Dakota Child Care Resource and Referral conducted a statewide study to measure the frequency that children were dismissed from programs serving children from infancy to age five in the state, as well as the reasons for their dismissal (Schwarzwalter & Danielson, 2008). My interpretation is that, similar to Grannan and colleagues' (1999) research in Michigan, Schwarzwalter and Danielson (2008) used the term "dismissal" synonymously with expulsion. The purpose of their study was to provide policymakers and child care administrators with insights about the prevalence of dismissal across the state, as well as to inform policies and preventive interventions. The research team co-designed a 44-item survey for teachers to collect information about (a) the characteristics of a dismissed child, (b) the characteristics of the child care program, (c) the occurrence of dismissal and reasons for dismissal, and (d) the resources or factors that would influence a teacher's decision to not dismiss a child from the program. The survey was distributed by mail to the administrators or directors of all

1,518 licensed child care programs in North Dakota for teachers to complete. At the end of data collection, 583 surveys were returned for a response rate of 38%. Teachers were asked whether they had dismissed any children from the program in the past two years. If this was true, then the survey asked respondents to describe specific information about the three most recent dismissals. This survey design, however, caused some confusion in survey completion and interpretation of results, so the authors noted that dismissal information provided in the report "should be viewed as numbers of dismissal cases (where one case may include multiple children) rather than numbers of individual children who were dismissed" (Schwarzwalter & Danielson, 2008, p. 1). The study found that 20% of teachers indicated they dismissed children from child care programs during the previous school year. Of those teachers, 51% reported dismissing one child, 32% reported dismissing two children, and 17% reported dismissing three or more children. The number of reported dismissals from the school year ranged from 0 to 8 per teacher. These rates tended to be slightly higher than rates from two years prior, when 14% of teachers reported dismissing children from their programs, and among those teachers, 50% reported dismissing one child, 31% reported dismissing two children, and 19% reported dismissing three or more children. Notably, Schwarzwalter and Danielson (2008) did not collect data about the demographic characteristics of the children dismissed from early care programs, so the evidence does not indicate whether disparities noted in other research were replicated at the North Dakota state level.

Emerging research from ECE contexts and increased advocacy at the K-12 level drove a federal response to systematically collect data on exclusionary discipline in preschools. In 2014, in the midst of heightened discourse about the "school-to-prison pipeline," the Office for Civil Rights (OCR) published a report that included national rates of suspensions and expulsions for the 2011-2012 school year from all 97,000 public schools and 16,500 districts in the country (U.S. Department of Education, 2014a). For the first time, the report included data from preschools. Over 5,000 children were suspended at least once, and 2,500 children were suspended more than once. When disaggregated by subgroups of children, the data showed significant disparities by race and gender. Specifically, Black children represented 18% of the total population enrolled in preschool, but represented 42% of the children suspended once and 48% of the children suspended more than once. In addition, three out of every four children suspended were boys. These data mirrored Gilliam's (2005) report published nearly a decade earlier, showing that at a national level, preschoolers were suspended and expelled at disproportionate rates by race and gender, which most frequently affected Black children and boys. The OCR also cited research about how racialized K-12 students were disproportionately affected by suspensions and zero tolerance policies, less likely to graduate on time, and more likely to experience subsequent suspension, repeat a grade, drop out, and become involved in the legal system as minors. In 2016, the OCR published a report describing equity and opportunity gaps in the nation's public schools during the 2013-2014 school year (U.S. Department of Education, 2016). The data indicated that Black children were 3.6 times more likely to receive one or more suspensions in preschool relative to their White peers. The report elevated concern about exclusion from educational opportunities and the disproportionate rates of preschool expulsions among boys, Black children, and especially Black boys.

To date, most estimates of the prevalence of exclusionary discipline are based on data from publicly-funded preschool programs (e.g., U.S. Department of Education, 2021a). Much less is known about how exclusionary discipline occurs in privately-funded preschool programs. According to the Center for American Progress (CAP), estimates from the National Survey of Children's Health conducted by the U.S. Census Bureau in 2016 indicate that as many as 17,000 children were expelled and 50,000 were suspended at least once from both public and private preschools across the nation (Malik, 2017). Therein, the prevalence of expulsion exceeded 250 suspensions or expulsions per day over the course of a single year. The estimates also indicate evidence of race and

gender disparities in exclusionary discipline in preschool. In particular, Black children were 2.2 times more likely to be suspended or expelled than other children, and boys made up 82% of the suspensions and expulsions. Important insights stand to be gained from nationally representative research that compares exclusionary discipline practices at private and public preschool programs.

In sum, estimates of the prevalence and disparities in exclusionary discipline in preschool settings are highly variable. The literature presents rates of exclusionary discipline that range from 6.67 out of every 1,000 children enrolled in state-funded preschool annually (Gilliam, 2005) to 250 children per day across publicly-funded and privately-funded preschools (Malik, 2017). Notably, literature directly measuring this phenomenon is sparse and the majority of findings are drawn from state and federal reports. Thus, it is difficult to construct a consistent range of rates due to the paucity of estimates, unique measurement strategies, and variable scopes across studies.

Potential Sources of Variation in Exclusionary Discipline

Research on exclusionary discipline in ECE settings primarily addresses the prevalence of this phenomenon — and to a lesser extent, disparities between subgroups — and the importance of policies and interventions designed to reduce exclusionary practices. Efforts to tease apart mechanisms of exclusionary discipline in preschool are nascent. A review of potential sources of variation opens critical windows for understanding exclusionary discipline as a structural, ecological phenomenon characteristic to the ECE system.

Child and Family Factors

There is evidence to suggest that particular "challenging" characteristics of children and families explain variance in exclusionary discipline. Preschool teachers (and parents) tend to express great concern about children's *externalizing* behaviors, which include a set of behaviors where children are outwardly expressive: high activity, defiance, noncompliance, aggression, or tantrums (Campbell, 1995). Externalizing behaviors and other issues related to eating, sleeping, and toileting are common and generally typical during early childhood (Campbell, 1995). Nationally representative research indicates that by the time they are in kindergarten, approximately one out of every 10 children exhibit what are often referred to as "challenging behaviors" (West et al., 2000).

Tantrums, for instance, are common during early development when children are one to five years old (Potegal & Davidson, 2003). In their study, Potegal and Davidson (2003) found that tantrums occurred among 87% of one- to two-year-olds, 91% of three-year-olds, and 59% of four-year-olds. Other research has reported that the highest prevalence of tantrums occurred among 75.3% of children aged three to five years of old (Bhatia et al., 1990). Tantrum behaviors are characterized as sudden, explosive, impulsive, out-of-control, embarrassing (if in public) outbursts of emotion, which include, for example, crying, shouting, screaming, hitting, kicking, throwing, and/or stiffening (Giesbrecht et al., 2010; Potegal & Davidson, 2003). From a developmental perspective, tantrum behaviors are extremely efficient and effective ways for a young child to communicate their needs and elicit responses from important adults in their life. Yet, these behaviors may be perceived as indicative of pathology, as noncompliance deserving of punishment, or as non-human. For instance, Potegal and Davidson (2003) used descriptors such as "grunting," "growling," and "shrieking like 'a prehistoric bird'" (p. 140) to describe children, alluding to their non-human likeness.

For some children, challenging behaviors are perceived as non-normative and difficult. Researchers have investigated whether characteristics of tantrum behaviors relate to typical or atypical child development. For instance, Belden and colleagues (2008) examined interview-based diagnostic assessments from 279 caregivers to determine whether tantrum intensity, frequency, context, and recovery differed between four groups of children, which they categorized as healthy,

pure depressed, pure disruptive, and combination depressed/disruptive. The study found that characteristics of tantrum episodes differed significantly between children in the healthy group and children in the three clinical diagnosis groups. Tantrums of children in the healthy group were characterized as less violent, self-injurious, destructive, and orally aggressive compared to tantrums of children in the clinical diagnosis groups. Nevertheless, Belden et al. (2008) interpreted the results cautiously, stating that findings "do not suggest that a single or group of behaviors during a tantrum episode could definitively indicate whether a child had or was at-risk for a psychiatric disorder" (p. 121). Moreover, nearly one out of three children in the healthy group presented "maladaptive or excessive behaviors" that matched behaviors by children in the clinical diagnosis groups (Belden et al., 2008, p. 121). The authors suggest that children's individual differences and emotional development may explain the overlap between what are perceived to be healthy and disordered children's tantrum behaviors.

For a broader assessment of early childhood behavior, the Institute for Education Sciences' Early Childhood Longitudinal Study (ECLS) examined data from a nationally representative sample of over 22,000 children in its 1998-1999 kindergarten cohort (West et al., 2000). Approximately 10% of kindergarteners overall, and 27% of low-income kindergarteners in particular, exhibited "problematic" behaviors. In addition, the ECLS indicated 46% of kindergarten teachers reported that over half of the children in their classes were not ready for elementary school because they lacked the self-regulatory skills and social-emotional competencies necessary for kindergarten. Qualitative research indicates a somewhat lower range of rates of behavioral, social, and emotional concerns among young children: 4% to 6% of preschoolers have "serious emotional and behavioral disorders," and 16% to 30% of preschoolers "pose on-going problems to classroom teachers" (Raver & Knitzer, 2002, p. 3; see also, Kupersmidt et al., 2000; Lopez et al., 2000). Other studies have suggested approximately 8% of all preschoolers aged three to five years old demonstrate behavior challenges that warrant psychiatric diagnosis (Keenan & Wakschlag, 2004).

The presence of challenging behaviors during preschool is associated with decreased readiness and achievement in kindergarten, and this effect is mediated by continued behavioral difficulties during kindergarten (Howse et al., 2003). Research has shown that young children with social, emotional, and behavioral problems categorized as aggression, noncompliance, and oppositional behaviors are at higher risks for academic failure, school absences, conduct disorders, school dropout, and delinquency during later school years (e.g., Tremblay et al., 1996). However, by and large, children "outgrow" challenging behaviors about half of the time without any intervention (Campbell, 1995). In the meantime, preschool teachers and providers increasingly voice concerns about young children who show signs of serious distress, and they express interest in training and assistance to manage behaviors (Hemmeter et al., 2006). Various classroom management strategies are designed to help teachers reduce behavior problems in young children, promote early childhood social and emotional development, and cope with the stressful nature of their work (Brennan et al., 2008; Raver & Zigler, 1997; Webster-Stratton et al., 2008). It is widely acknowledged that social and emotional development during early childhood is "critical to school readiness and positive long-term outcomes" (Duran et al., 2010, p. 1; see also, Domitrovich et al., 2017). Nevertheless, studies show that preschool teachers and administrators deploy exclusionary discipline to manage children's behavioral, social, and emotional states.

As Schwarzwalter and Danielson (2008) illustrated in the North Dakota study, teachers are frontline observers of children's early behavioral, social, and emotional development. One important feature of the North Dakota study is that it collected information about the "profiles" of dismissal cases, including teachers' reasons for dismissing children and their documentation of children's behaviors before dismissal. Preschool-aged children made up the majority (31%) of dismissal cases followed by toddlers (28%) and infants 12 to 23 months old (18%). The most common reasons for

dismissal included child behavior problems (51%), parent/guardian inability to pay for child care (31%), and other teacher-identified reasons (29%), such as specific child behavior problems, issues with scheduling, children's special needs, health problems (e.g., lice), parent behaviors, and lack of parent cooperation. Teachers also reported specific resources that would have helped them to avoid dismissing a child: additional staff, a higher percentage of the child care bill paid by social services, improved parent engagement, and knowledge of child/family background prior to enrollment. In a separate section of their report, the authors presented teachers' comments on the survey's open-response items. Compared to other studies, this is perhaps the most profoundly illustrative example of the layered nature of child exclusion from ECE contexts. Some comments illustrate how dismissal was used to exclude not just children but entire families. For example, one teacher clearly identified, "It is not always the child that causes the reason for dismissal. It is sometimes the parent" (Schwarzwalter & Danielson, 2008, p. 6). In particularly trying circumstances, one teacher invoked dismissal and contacted social services. This teacher reported on the survey that they,

> Felt bad about letting kids go, but the mom thought the lice was no big deal. I never did get paid. The children were eventually placed in foster care. I had the family only about 1 month, caught the kindergartener stealing toys (4 kids in family) and the 4th grader spraying hairspray in mouth. Told their social worker about incidents and mom. (Schwarzwalter & Danielson, 2008, p. 6)

Another teacher reported that the dismissed child simply did not "belong" at their program based on their emotional and behavioral responses, and even described the child as "abusive":

> [The child] was also abusive physically and verbally to caregivers. Children in center were scared of his outbursts. I believed we didn't have the facility that could accommodate his tantrums without being noticed by other children. Some children don't belong in certain centers because of the physical constraints of the facility. (Schwarzwalter & Danielson, 2008, p. 7)

Children's emotional and behavioral responses were particularly salient among teachers' narratives about why they dismissed children. According to one teacher,

> Most of my dismissals were due to excessive crying. In each case, the parents were told that the child was crying and something needed to be done. Parents continued to look to me to contrive ways to pacify their children. That was not the underlying problem. (Schwarzwalter & Danielson, 2008, p. 5)

Teachers' narratives conveyed that children's needs and behaviors were difficult to accommodate in the classroom setting. Some teachers reported challenges accommodating children with developmental delays or recommending that parents seek clinical evaluation. By this logic, the process of dismissal was one way of treating children's behavioral, social, and emotional states that were perceived as evidence of clinical concerns. One teacher observed that a child "wouldn't talk and was 3 years old," and that the teacher did "as much as [they] could…even got him evaluated with a facility as soon as [they] got the parent to admit there was something wrong" (Schwarzwalter & Danielson, 2008, p. 7). In this case, dismissal was used to motivate a clinical evaluation and make a point to parents. Another teacher wrote,

> With this child it was like building a house; getting the house three-fourths finished on Friday — when the child returned on Monday, someone had torn the house down and we were starting all over again. This was not the child's fault - child had a medical problem. (Schwarzwalter & Danielson, 2008, p. 6)

Altogether, the North Dakota study documented various reasons for dismissals, which cohered around teachers' judgments about combined issues of children's behaviors and parents' reactions, issues with parents, issues with children's behaviors, a lack of resources, and families' financial issues. When children participate in ECE, teachers may be the first to observe children's deviations from thresholds of a typical developmental continuum. Other research, however, suggests exclusionary discipline is rooted in teachers' subjective interpretations that some children — particularly racialized children — exhibit behaviors that are troubling, unmanageable, and pathological.

Teacher and Program Factors

Outside of child and family factors, there is evidence that teacher- and program-level factors relate to children's exclusion from education. Webster-Stratton et al. (2008) reasoned that teachers with professional development and training, who use "high levels of praise, proactive teaching strategies, and non-harsh discipline," are in important positions to influence children's development of social and emotional skills and prevent the development of "conduct problems" (p. 472). Children are more likely to be expelled from preschool programs that lack resources, such as program funding and mental health supports for teachers and staff (Gilliam, 2005). Put simply, the children most "at-risk" for exclusion are often taught by teachers who have the fewest internal and external resources for responding to challenges (Webster-Stratton et al., 2008). In Alaska, for example, the statewide Early Childhood Comprehensive Systems Plan highlighted, "too often children move from program to program because early childhood staff members are not trained to deal with their difficult behaviors and to support and work with their families" (State of Alaska, 2006, p. 18). The Early Childhood Comprehensive Systems Plan reported that the effect of exclusion was "additional stress for families who are already struggling and is harmful as well for children who need predictable and consistent environments" (State of Alaska, 2006, p. 18).

Furthermore, teachers' mental health has been found to influence their capacities to respond contingently to children's needs. For example, Hamre and Pianta (2004) studied the prevalence of self-reported depressive symptoms in a sample of 1,217 nonfamilial caregivers and analyzed the relationship between depression and the quality of interactions between caregivers and young children in child care settings. The study found caregivers' self-rated depressive symptoms were statistically significantly associated with caregiving behaviors that were less sensitive, more withdrawn from children, and more intrusive and negative in connotation. While effect sizes were low overall for each of these associations (e.g., depressive symptoms accounted for only 1% of variance in each variable), effects were more pronounced for teachers in family-based child care settings and for teachers with lower educational backgrounds (Hamre & Pianta, 2004). This study made an important link between mental health and caregiving, but it did not explain how variations in caregiving relate to children's outcomes.

While much attention has been aimed at parsing out the child, family, and teacher factors that relate to exclusionary discipline, there is less consensus about the structural characteristics of preschool programs that exclusion is conditioned upon. At the highest level, funding sources and types of settings are key structural indicators. Gilliam's (2005) nationally representative estimates, for instance, indicated that faith-based, for-profit child care, and community-based care settings were significantly more likely to report expelling children. Additionally, research on the longitudinal

effects of privately-funded and publicly-funded preschool programs tends to "lump together several care arrangements into broad categories" (Magnuson & Waldfogel, 2005, p. 176), so the effects of particular funding sources on exclusionary discipline have not been isolated.

Trivedi and colleagues (2017) analyzed National Survey of Early Care and Education (NSECE) 2010-2012 data from center-based ECE programs and identified factors that correlated with reduced exclusionary discipline. Comprehensive services, support for ECE teachers and staff, and funding and program types were correlated with expulsion. These correlations provide insights about key program and staff factors, yet they neither explain the effect of particular factors on expulsion, nor identify higher-level factors linking center and classroom characteristics to observed expulsion. Additionally, research has not explored how prekindergarten, Head Start, and privately-funded programs, for example, differ in likelihood of excluding children from early learning opportunities. As previous studies on exclusionary discipline in ECE have considered few program-level factors and relied on descriptive statistics and bivariate analyses, the interactions and predictive power of structural factors in relation to exclusionary discipline in ECE have not been isolated, yet appear promising routes for future studies.

In K-12 settings, school-level structural and cultural factors have been explored in relation to exclusionary discipline (Fabelo et al., 2011). For instance, Rausch and Skiba (2006) found that school-level structural factors such as policies, practices, and school leadership, in particular, were significant predictors of exclusionary discipline in schools. The demographic compositions of schools, including factors such as race/ethnicity, gender, student achievement, and prevalence of socioeconomic disadvantage and chronic absenteeism, have also been shown to relate to disparities in exclusionary discipline (Gregory et al., 2010; Skiba et al., 1997; Wu et al., 1982). Schools with high levels of poverty and racial isolation, according to Losen and Gillespie's (2012) research, were more likely to embrace harsh discipline policies and strict leadership. This finding is consistent with previous literature, which has shown that among low-income populations, teachers were more likely to use harsh, detached, and ineffective teaching strategies than among middle-income populations (Phillips et al., 1994 and Stage & Quiroz, 1997, cited in Webster-Stratton et al., 2008). At a macro-level, economic resources of schools and communities compound a constellation of issues that teachers and children experience in school settings.

Mounting evidence indicates that teachers and school administrators invoke exclusionary discipline through logics guided by implicit biases. *Implicit bias* refers to the automatic and unconscious stereotypes that influence behavior and decision-making (Staats et al., 2015; Nance, 2016; Neitzel, 2018). Greenwald et al. (2009) conducted a meta-analysis of 184 studies of implicit bias and concluded — in the most general terms — implicit bias predicts differential treatment of dissimilar individuals. In the context of exclusionary discipline, implicit biases inform attitudes and beliefs that some children — on the bases of race, disability, age, and/or gender, for instance — demonstrate behaviors that are difficult or deviant, and therefore require discipline. For example, in 2014, the District of Columbia's Office of the State Superintendent of Education published a report on preschool suspensions in Washington D.C. Preschoolers were suspended for "temper tantrums, classroom disruption, repeated vulgarity, and bathroom mishaps" (Cyphert, 2015, p. 899). To illustrate the subjective nature of exclusionary discipline invoked in preschool, Cyphert's (2015) law review highlighted one case, which received attention from public media outlets: a mother shared "stories of her son's "preschool suspensions for throwing objects and hitting" (p. 899). In short, the child presented behaviors "any parent of a preschooler would recognize as challenging but common" (Cyphert, 2015, p. 899). The child, who is African American, was first suspended for throwing a chair. Within the same week, after he had returned to preschool for only 30 minutes, he was suspended again for crying at the breakfast table and pushing a chair. The child was suspended a third time, two weeks later, for spitting. When his mother spoke with other parents in her son's

preschool class, the parents reported that their children had hit or bitten other children, including an incident where a child went to the hospital. Yet, these children, all White, had never been suspended from the preschool. Cyphert (2015) documented how research supports the "rather obvious notion that it can, in fact, be quite normal for preschool children to have behavioral problems" (p. 900). Yet, the differences in exclusionary consequences between the disciplined child and his peers suggest that teachers' implicit biases, guided by racism, paired his Blackness and behavior as punishable and paired his peers' Whiteness and behaviors as permissible.

To understand the potential role of teachers' implicit biases as a partial explanation of racial and gender disparities in preschool expulsions, Gilliam et al. (2016) recruited 135 preschool teachers to participate in each of two sub-studies: (a) a study using eye-tracking technology to examine how teachers identify misbehavior in classroom video scenes, and (b) a study that asked teachers to read a vignette and rate the severity of children's behaviors on a five-point scale. The results from the eye-tracking study indicated that when preschool teachers scanned a classroom for misbehavior, they spent significantly more time looking at Black children, and at Black boys specifically. Further, the race of teacher participants in the study was significantly predictive of the amount of time they spent tracking Black boys. Black teachers spent more time focused on Black boys and less time focused on other children compared to White teacher participants. In addition, the eye-tracking study found when teachers were asked to rate which children required the most attention, 42% indicated that the Black boy required the most attention, followed by 34% for the White boy, 13% for the White girl, and 10% for the Black girl. The results for the vignette study found Black children were judged as having less-severe behavioral issues than White children, yet were visually surveilled more often than White children. Gilliam et al. (2016) found that when teachers were provided with background information about children (e.g., narrative about family history), they tended to rate children's behaviors less severely if teacher and child race matched, and more severely if teachers were of different races than the children. The study concluded that implicit biases might be reduced through interventions designed to either address biases directly or increase teachers' empathy for children.

Much of the empirical work on implicit bias and school discipline is based in K-12 settings. For example, Bennett and Harris (1982) found that teachers' perceptions and expectations of high school youth were key mediators of their decisions regarding discipline. Expanding upon these findings, Monroe (2005) investigated how the cultural "criminalization of Black males appears to provide a powerful context for the discipline gap" (p. 46). According to Monroe (2005), teachers frequently approached classes populated by low-income and African American youth with a "strong emphasis on controlling student behaviors" (p. 46). Teachers were more likely to react harshly to incidents of perceived misbehaviors among Black students than among White students.

Recent research investigates the extent to which implicit bias mediates students' discipline outcomes depending on demographic characteristics. For example, Okonofua and Eberhardt (2015) conducted an experimental study that focused on teachers' perceptions of student behavior. The authors hypothesized that that negative racial stereotypes associated with Black students would increase the likelihood that teachers view infractions over time as a problematic pattern, potentially escalating harsh disciplinary responses. In the study, teacher participants were shown an office discipline referral for a student with two incidents of misconduct, but the name of the disciplined student was either stereotypically Black (Darnell or Deshawn) or stereotypically White (Greg or Jake). Okonofua and Eberhardt (2015) found that teachers responded with more severe disciplinary recommendations toward students with stereotypical Black names than toward students with stereotypical White names. The study also found evidence indicating that the more likely teachers were to think the student was Black, the more likely they were to label the student "a troublemaker." In a similar vein, Goff et al. (2014) found that teachers and other authority figures tended to perceive African American boys as less innocent than their White peers, overestimate their ages, and

give them harsher punishments. Goff et al. (2014) found that the characteristic of "innocence," typically associated with childhood, was less frequently applied to Black boys than to White boys.

Implicit bias does not exist in a vacuum. The ongoing COVID-19 pandemic, which began in 2020, motivates novel inquiries about whether the pandemic and the virtual classroom context affect teachers' perceptions of children's behaviors, particularly among Black boys. Bookser and colleagues (2021) conducted a survey experiment wherein 60 preschool professionals were randomly assigned to read three behavior vignettes[4] focused on a child with a stereotypical Black male name, "Terrell" (Greenwald et al., 1998). The vignettes were set in either distance learning or in-person contexts. The study found that (1) participants felt more troubled and endorsed more severe discipline over the course of the three behavior vignettes set in the distance learning context as compared to the in-person context; and (2) participants felt more troubled by the child's behaviors when they were more fearful of COVID-19. The authors concluded that the results demonstrate how "context matters," such that the pandemic appears to animate early education professionals' perspectives on preschool discipline. The results also point to a need for system-level efforts that target institutional racism and support preschool providers coping with the pandemic. The study motivates further research investigating how exclusion from ECE is conditioned upon structural context (e.g., pandemic, racism, fragmented early education system, underpaid workforce, etc.).

Community and Society Factors

Organized within a system-level analysis, implicit bias and exclusionary discipline disparities are connected to an ideology of zero tolerance undergirded by structural racism[5] and a carceral continuum.[6] Zero tolerance policies empowered and motivated schools and districts to enforce exclusionary discipline (Kafka, 2011). Specifically, the language of "zero tolerance" in education emerged during intensely punitive political moments that targeted low-income and Black communities and coincided with increases in criminalization therein. In 1994, steeped in a national "war on crime," the Clinton administration codified and systematized zero tolerance in the Gun Free Schools Act (GFSA), which legally mandated that schools automatically expel any student possessing a gun for a full calendar year and even refer the student to juvenile or criminal legal systems (Kafka, 2011). The GFSA promoted a strong belief that "violent" acts of student misconduct "demand strict and firm punishment without exception" (Kafka, 2011, p. 2). Soon after, the GFSA was modified to mandate these consequences for the possession of any weapon in schools. Other examples of misconduct troubled under zero tolerance included drug possession and fighting, as well as non-criminalized acts such as smoking, tardiness, truancy, use of language, disrespect, and disruption (Bloomenthal, 2011; Kafka, 2011; Skiba & Peterson, 1999; Skiba & Rausch, 2006). As an incentive for schools to enact zero tolerance policies, the GFSA legislation conditioned federal funding on schools' adoption of policies requiring a minimum one-year suspension for any student carrying a gun at school. Discretion was left to states and districts when it came to instituting more expansive or strict policies. By the late 1990's, 79% to 94% of schools

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[4] Note that this survey methodology is detailed further in Chapter 5 because the quantitative strand of this dissertation draws from this survey dataset.

[5] *Structural racism* is a "socio-legal paradigm that integrates critical race theory and systems science" (Roithmayr, 2008, cited in Smith, 2009, p. 1023), which refers to the institutional, policy, and process frameworks in a society that establish the superiority of one racialized group and inferiority of others. For key examples, see Rothstein's (2017) research documenting systematic racialized residential segregation codified and imposed by federal, state, and local governments, and Ewing's (2019) study of racialized housing and school segregation and school closures on the South Side of Chicago.

[6] Foucault's (1977) conceptualization of the *carceral continuum* is further discussed in Chapter 4.

implemented zero tolerance policies (see Heaviside et al., 1998) and many states and districts established policies and practices that reached beyond the requirements of the GFSA (Kafka, 2011).

Zero tolerance received wide public approval. Supporters of zero tolerance took a position advocating that the measures improved school climate, ensured safety, and "promote[d] equity by mandating the imposition of uniform penalties regardless of student background or extenuating circumstances" (Kafka, 2011, p. 2). Despite the rhetoric of "safety" and "equity" from advocates of zero tolerance policies, considerable literature indicates that the policies were ineffective and failed to benefit schools or students (e.g., Curtis, 2014; Fuentes, 2012; Henault, 2001; Kafka, 2011; Mongan & Walker, 2012; Skiba & Knesting, 2001).

The prevalence and variance in exclusionary discipline in ECE may be a "trickle-down" effect of widespread implementation of zero tolerance policies in K-12 schools during the 1990's (Cyphert, 2015, p. 895). Extant research on exclusionary discipline in ECE has been broadly concerned with establishing the evidence base and motivating public policy responses. A review of potential sources of variation at child, family, teacher, school, and macro social and institutional levels opens nuanced and critical perspectives about this phenomenon across settings and groups.

Consequences of Exclusionary Discipline

At large, punitive discipline prevents students' meaningful participation in the social institution of education and antagonizes student-teacher relationships. Selma Fraiberg (1959), the preeminent figure in the field of infant mental health, asserted that an uptake of *corporal punishment*, or physical punishment, in schools had made the concept of discipline unrecognizable to its educational roots. According to Fraiberg (1959), discipline is, by definition, "teaching, education, and when employed for child-rearing it should have the significance of education of character" (p. 235). Fraiberg (1959) argued that when discussing "methods of discipline we should then hew close to the real significance of this term and speak of those methods that instruct, make learning possible" (p. 235). Fraiberg issued a call for early educators and caregivers to reconstitute discipline as a method to "make learning possible" for children, yet contemporary educational research shows that it does the opposite by interrupting academic learning and achievement (Losen & Martinez, 2020; Losen & Whitaker, 2018; Skiba et al., 2014).

There is growing concern that exclusionary discipline during early childhood interferes with young children's "readiness" for formal schooling due to lost instruction time and missed developmental opportunities (Gilliam, 2005; Gilliam & Shahar, 2006). Considerable research has shown that exclusionary discipline during K-12 is statistically significantly associated with an array of adverse outcomes for students, including subsequent school discipline, emotional and mental health concerns, grade retention, poor academic performance, school dropout, being involved with the legal system, being unhoused, and being unemployed (Fabelo et al., 2011; Losen & Gillespie, 2012; Losen & Martinez, 2020; Losen & Whitaker, 2018; Perry & Morris, 2014; Skiba et al., 2014; Skiba & Rausch, 2006; Theriot et al., 2010). Nationally, in the 2015-2016 and 2017-2018 academic years, for example, students missed over 11 million school days due to out-of-school suspensions (U.S. Department of Education, 2019, 2021a). In sum, exclusionary discipline is inversely associated with academic opportunities and performance. Welner and Carter (2013) define *opportunity gaps* as disparities in "foundational components of societies, schools, and communities that produce significant differences in educational — and ultimately socioeconomic — outcomes" (p. 3). Some scholars posit that the discipline gap and the achievement gap are "two sides of the same coin" (Gregory et al., 2010), and opportunity and achievement gaps are expected to persist until discipline gaps are addressed (Gregory et al., 2010; Losen et al., 2015).

The persistence of discipline disparities has led researchers, legal scholars, community organizers, and media outlets to increasingly cite the "school-to-prison pipeline" since the early

2000's. The school-to-prison pipeline conceptualizes a path for marginalized students out of schools and "into the streets, into the juvenile justice system, and/or into adult prisons and jails" (Heitzeg, 2009, p. 2). Importantly, the school-to-prison pipeline is a contested concept. McGrew (2016) contends that the school-to-prison pipeline literature treats the concept as "not only settled, but self-evident," and thus falls into traps including "the tendency to take slogans and metaphors literally" and "the uncritical acceptance, reification, and even misrepresentation of popular scholarship" (p. 348). The pipeline implies that exclusionary discipline contributes to causal risk for later incarceration, yet it is undertheorized and lacks the rigorous empirical backbone needed to draw such a conclusion. Other scholars, however, insist the school-to-prison pipeline is "more than a metaphor" (Skiba et al., 2014). According to Skiba et al. (2014), the school-to-prison pipeline is a scientific construct that represents policies and practices in public schools and the juvenile justice system. As discussed, decades of research have shown that exclusionary policies and practices correlate with and/or predict decreased likelihood for academic success and increased likelihood for negative life outcomes, but whether and how a causal relationship exists remains unclear. This dissertation draws from the critical theoretical and empirical advances made by burgeoning literature addressing the school-to-prison pipeline, yet adopts an expansive conceptualization of carcerality and education as complex and entangled. This frame is discussed further in Chapter 4.

Federal Guidance and State Policies for Publicly-Funded Preschools

Delineating the reasoning for and impact of preschool expulsion, especially "how these children who are left behind so early in their educational experience can be provided a more productive start to school" (Gilliam, 2005, p. 13), is trenchant to educational research and public policy. With pressure mounting to address school discipline disparities at preschool, elementary, and secondary levels of education, the U.S. Department of Education published *Guiding Principles*[7] for states and local organizations (e.g., public school districts) to mitigate the disparate impact of exclusionary discipline on racialized students and students with disabilities, in particular (U.S. Department of Education, 2014b). *Guiding Principles* was the first federal statement on exclusionary school discipline that addressed disparities in publicly-funded preschools. The principles suggested that school discipline policies may violate civil rights laws if they result in higher rates of discipline for some groups of students, even if the policies are developed without explicit discriminatory intent. The principles recommended that schools "collaborate with mental health, child welfare, law enforcement, and juvenile justice agencies and other stakeholders to align resources, prevention strategies, and intervention services" and students should only be removed from their classrooms "as a last resort" before returning to classrooms as soon as possible (U.S. Department of Education, 2014b, p. 8).

The U.S. Department of Health and Human Services and the Department of Education (2014) furthered the message of *Guiding Principles* through a joint statement about school discipline disparities as part of President Obama's My Brother's Keeper initiative, which sought to address opportunity gaps — disparities that produce significant differences in educational and ultimately socioeconomic outcomes — that racialized boys and young men persistently face. The purpose of the joint statement was "to support families, early childhood programs, and States by providing

[7] Critics of *Guiding Principles*, predominantly conservative groups, argued that the federal guidance issued under the Obama administration encouraged some school districts to reduce use of exclusionary discipline, which, they asserted, contributed to more chaotic learning environments and concerns for school safety. Under the Trump administration, Secretary of Education Betsy DeVos established a Federal Commission on School Safety, which issued a report calling to rescind the civil rights guidance stipulated in *Guiding Principles*, and to train and arm school staff with guns, among other measures thought to promote school safety. On December 21, 2018, just one day after the Commission's report was released, DeVos officially rescinded the civil rights guidance issued in 2014 (see Ujifusa, 2018).

recommendations for preventing and severely limiting expulsion and suspension practices in early childhood settings" (U.S. Department of Health and Human Services & U.S. Department of Education, 2014, p. 1). The statement highlighted biased preschool disciplinary policies and practices and under-resourced, inadequate education and training for teachers, especially in self-reflective strategies to identify and correct potential biases in their perceptions and practice. Further, the statement proposed that a combination of "workforce wellness, preparation and development, and access to expert supports, may assist programs in preventing, severely limiting, and ultimately eliminating expulsion and suspension in early childhood settings" (U.S. Department of Health and Human Services & U.S. Department of Education, 2014, p. 7). The statement elevated the concept that early childhood is critical to the lifespan trajectory. Recommendations were intended to influence policy initiatives at state and local levels. Key state-level recommendations included setting goals for improvement, analyzing data to assess progress, investing in workforce development, establishing and implementing policies for program quality, and accessing free resources to develop and scale best practices. Local- and program-level recommendations were similar: set goals and analyze data, access technical assistance in workforce development, use free resources to enhance staff training and school-family connections, and develop and communicate preventive guidance and discipline practices and policies.

In recent years, 8 states — including California, Connecticut, Georgia, Illinois, Maryland, New Jersey, Texas, and Virginia — and the District of Columbia implemented policy changes and workforce supports to eliminate suspension and expulsion in early learning settings (e.g., Davis et al., 2020). State policy changes included mandates for publicly-funded ECE programs to (a) build data infrastructures to track policies and interventions; (b) harness the support of leadership at the state level in order to advance policies (e.g., developing task forces); (c) partner with and learn from families, teachers, and community advocates; and (d) expand supports for the early childhood workforce (U.S. Department of Health & Human Services, 2016b). Overall, state policies signal that the implementation of alternatives to exclusionary discipline are expected to yield incremental reductions in exclusionary practices.

Federally mandated standards of care have had the widest reach in promoting preventive alternatives to exclusionary discipline in ECE. Beginning in 2016, the nation's 3,000 Head Start and Early Head Start programs were required under the Head Start Program Performance Standards from the U.S. Department of Health and Human Services to provide mental health services to meet children and families' needs (U.S. Department of Health & Human Services, 2016a). The Standards specifically state that Head Start agencies "must secure the services of mental health professionals on a schedule of sufficient frequency to enable the timely and effective identification of and intervention in family and staff concerns about a child's mental health" (U.S. Department of Health & Human Services, 2016a, p. 38). Engaging with mental health services, collaborating with parents, and using other community resources were framed as key measures to limit suspensions and prohibit expulsions (U.S. Department of Health & Human Services, 2016a). Yet, exclusionary discipline remains a viable option. Following the specified sequence of preventive and alternative measures, the Standards stated it must be determined "no other reasonable option is appropriate" other than temporary suspension (U.S. Department of Health & Human Services, 2016a, p. 17). Moreover, the Standards stipulate that Head Start programs are prohibited from invoking expulsion because of a child's behavior. Programs must explore "all possible steps and document all steps taken to address such problems," including "engaging a mental health consultant" (U.S. Department of Health & Human Services, 2016a, p. 17).

In June 2018, the Child Care State Capacity Building Center (SCBC, 2018), an initiative of the Administration for Children and Families Office of Child Care at the U.S. Department of Health and Human Services, released the second edition of its recommendations for public policy strategies

in states and territories that aim to reduce and eliminate expulsion and suspension from early learning settings. The SCBC's "Expulsion Policy Strategy Tool" specifically focuses on complex factors that influence suspension and expulsion, including the subjectivity of perceptions of children's behaviors, how implicit biases affect perceptions of racialized children, and how to respond to needs of the preschool workforce. The tool delineates six strategies for preventing expulsion in early childhood settings: (a) clear goals and progress monitoring; (b) fair and appropriate policies; (c) strong family partnerships; (d) universal developmental and behavioral screening; (e) highly skilled workforce; and (f) access to specialized consultation. The SCBC strategy tool is designed to encourage collaboration at multiple levels of public policy development and implementation.

Notably, recent federal guidance and state policies are limited in scope, given that their purview is restricted to publicly-funded programs. Further, extant guidelines and policies were issued absent much needed theoretical and conceptual clarity about the nature of exclusionary discipline in preschools. In particular, policies do not attend to the undocumented and unregulated ways children may be excluded from preschool programs. Thus, conceptualizing the typology and structural dimensions of exclusionary discipline is crucial to developing empirically-grounded, equity-focused policy and practice interventions.

Areas of Inquiry

A much needed first step for future programs of research involves strengthening theoretical and conceptual clarity about exclusionary discipline in ECE settings. This is important because ECE is uniquely positioned as a "nonsystem" (Pianta et al., 2009) separate from K-12. Concepts and theories explored in the wider school discipline literature may not transpose accurately or appropriately onto exclusionary phenomena observed in ECE settings. Thus, the epistemic terrain of exclusionary discipline must map the array of exclusionary exits from ECE contexts, which may be systematically unique compared to K-12 education.

As a second step, measures of exclusionary discipline need parsing out as a typology. For example, suspension and expulsion are frequently merged in school discipline literature as a single construct under the heading "exclusionary discipline." Additionally, "dismissal" is used synonymously with "expulsion." Research on exclusionary discipline must delineate the extent to which important dimensionality exists in the processes of particular disciplinary measures. It is possible that there are significantly different scaffolds in place that create pathways of exclusion via suspension compared to expulsion or dismissal, or that other salient modes of extra-exclusionary trapdoors emerge. Furthermore, there may be differences and dimensionality in exclusionary discipline across different types of ECE settings and characteristics of program quality. Although federal reports and the emerging state policy context suggest that rates of exclusionary discipline in ECE have fallen in recent years, it is possible there are covert, unconventional, and undocumented trapdoors through which children and families make their exits.

Third, research on the institutional, organizational, and funding context of preschool, as well as potential sources of variation of exclusionary discipline, makes clear that preschools stand to benefit from preventive interventions aimed at addressing interlocking structural factors that detract from the quality and climate of programs for all children. There are several directions for additional supports and resources to mitigate exclusionary discipline and influence the overall quality and climate of ECE settings, yet studies are sorely needed to determine structural factors that should be targeted to achieve successful implementation and outcomes.

Fourth, rigorous research methods are needed to add precision to the knowledge base. Studies have not used methods that account for demographic intersectionality between groups of children who experience exclusionary discipline. Instead, group rates are reported in isolation from

each other, which fails to provide researchers and policymakers with an accurate understanding of children most affected by exclusionary discipline and prevents intervention efforts from addressing children's experiences through an intersectional framework. Thus, research designs that are anchored in intersectionality and engage longitudinal, multilevel, and qualitative methods will make welcome contributions to the evidence base. Furthermore, it is crucial that research designs use qualitative methods that include teachers, school leaders, and parents as expert informants. For example, future studies may investigate areas of alignment and contrast between administrators', teachers', and parents' points of view on routine discipline practices. Mixed methods designs may be especially fruitful avenues to enhance the knowledge base.

Finally, critical theories problematize the notion that exclusionary discipline is a single story about children's challenging behaviors. In particular, Critical Race Theory (CRT) explains exclusionary discipline disparities in preschool specifically in relation to the effects and reproduction of racism in the system of education, and to dynamics of social and economic inequality more broadly as it intersects with the social construct and material realities of race (for a collection of seminal work, see Crenshaw et al., 1995). Anchored in a CRT perspective, the initial set of factors that appear most promising to investigate in future research on exclusionary discipline in ECE include structural factors and forms and functions of exclusionary practices. For instance, teachers' reports from North Dakota (Schwarzwalter & Danielson, 2008) and the case described in Cyphert (2015) illustrated that reasons for exclusionary discipline were heterogeneous but generally involved bias from teachers toward children and families: some children and families were perceived as troublesome and ultimately excluded. By constructing lines of inquiry through CRT and other critical frameworks, future studies should bring exclusionary discipline in ECE into conversation with structural racism and social injustice.

Research Questions

Guided by critical theories and desire-based epistemology, this dissertation responds to the gaps in knowledge outlined above and compelling evidence suggesting the promise of investigating whether and how structural dimensions of the ECE system buttress extra-exclusionary trapdoors. The current study used a convergent mixed methods design and focused specifically on analyzing the structural dimensions of trapdoors through an "inside-out" epistemic approach. The principal research questions (RQs) addressed in this study, therefore, span the quantitative (RQ1), qualitative (RQ2), and convergent mixed methods (RQ3) components of the design:

RQ1. Do unmeasured common factors account for variance in measured extra-exclusionary discipline variables?

RQ2. What themes and associated underlying dimensions of extra-exclusionary discipline emerge from preschool professionals' interview narratives?

RQ3. To what extent do themes and associated underlying dimensions of extra-exclusionary discipline that result from interview analysis cohere with extra-exclusionary discipline and underlying factors that result from exploratory factor analysis?

Chapter 4: Theoretical Perspective

This dissertation deploys a critical theoretical approach. This perspective aims to flatten the hierarchy of the researcher and the subject; prioritize holistic, multidimensional understanding; and inspire novel approaches to problem-identification and systems-change. In this chapter, I describe the two critical theoretical perspectives, and the epistemological stance, that guided my approach to the current research.

Critical Theories in Social Science Research

In educational contexts, critical theories problematize the notion that policies and practices are objective or ideologically neutral. Relationships, context, and power are inextricable. Critical scholars explain how systems of power (e.g., White supremacy, racism, settler colonialism, ableism, sexism, capitalism) operate as bedfellows in systems of education and processes of schooling (e.g., Annamma, 2016; Annamma et al., 2013; Leonardo, 2004; Love, 2019; Ladson-Billings, & Tate, 1995; Tate IV, 1997). Two frameworks guide the theoretical perspective employed in this dissertation: (a) Foucault's (1977) theorization of the carceral continuum, and (b) Critical Race Theory (CRT).

The Carceral Continuum

Foucault's (1977) theorization of the carceral continuum, also referred to as the "carceral network" or "carceral mechanisms," describes the dissolution of "frontiers between confinement, judicial punishment, and institutions of discipline" (p. 297). The concept of the carceral continuum highlights the expansion and mutation of discipline and punishment in society, beyond the borders of formal carceral institutions. Foucault (1977) provokes: "Will the power to punish… be better served by concealing itself beneath a general social function, in the 'punitive city,' or by investing itself in a coercive institution, in the enclosed space of the 'reformatory'?" (p. 130). Foucault asserts that "carceral methods" are not exclusive to prisons but largely hidden features of every facet of society, meant to manifest and maintain power relations. Foucault demarcated three characteristics of carceral methods: (a) *hierarchical observation*, a systematic, authoritarian process of surveillance; (b) *normalizing judgment*, the institution of reform-based, rehabilitative frameworks to correct deviance from constructed norms; and (c) *examination*, the collection of evidence to equate power and logic.

A Foucauldian perspective explains how disciplinary control is concerned with extinguishing deviance perceived as threatening to dominant power. The main goal is to "reform" or "rehabilitate" deviant subjects. According to Foucault, exclusion has been used by societies to characterize and handle the "abnormal" and "deviant" (Harcourt et al., 2013, pp. 2-3). Foucault contended that exclusion is antithetical to assimilation because it does not neutralize outliers. Instead, exclusion is an assertion of power meant to master the socially constructed "dangerous forces in our society" (Harcourt et al., 2013, p. 2). Foucault (1977) asserts that "enclosed institutions of discipline," such as schools, are objects of an expansive carceral continuum intent on "disciplining the non-disciplinary spaces" (p. 215).

Foucault's analysis of the carceral state is deployed as a theoretical perspective to explain patterns and practices of exclusion and punishment in schools. Each of the three carceral methods — hierarchical observation, normalizing judgement, and examination — transpose clearly onto the "coercive institution" of a compliance-based educational landscape where surveillance and policing are foundational to zero tolerance policies, as discussed in Chapter 3.

Ferguson (2000), for example, invokes Foucault's theorization of disciplinary power as a frame to analyze racism and school punishment in K-12 settings. Highlighting the Foucauldian concepts of "normalization and of normalizing judgments," Ferguson (2000) explains how social relations to power are transmuted and concealed by individual preoccupations "with a specific

perception of our identity and potential that appears natural rather than the product of relations of power" (p. 52). According to Ferguson (2000), most research neglects to analyze punishment as a "mechanism in a process of social differentiation" (p. 51). In this frame, stratified societies use punishment to preserve and protect power differentials, a construction that strategically omits critical examination of punishment in dominant discourse.

Annamma (2016) integrates a Foucauldian perspective to analyze the "socio-spatial dialectic" of the nature of a school-to-prison pipeline in a carceral state, with particular attention to dynamics of vulnerability and resistance to state violence among racialized adolescent females (p. 1210). Annamma (2016) specifies that "by being permeable, carceral logic is embedded across seemingly different systems that are inextricably linked, focusing on surveillance, coercion, and punishment" (p. 1211). I extend Annamma's conceptualization of carceral logics to include the structures, processes, policies, and decision points that function to surveil, harass, police, punish, and alienate people and communities to establish and/or maintain control and subjugation. We can therefore understand how exclusionary discipline is implicated in a broader analytic about relationships between institutions and power. Annamma (2016) describes the human consequences of the pernicious enterprise of carceral logic in a system of White supremacy in education:

> The articulated goals of public education, to allow all children to gain knowledge and provide them social mobility, are undermined by carceral logic. However, because the carceral state functions in a system of White supremacy, the purpose of public education is to provide *certain* children with chances to solidify or improve their social standing while removing opportunities for others. (p. 1212, italics original)

In a "punitive city," educational and carceral landscapes are enmeshed and co-constitutive. Considering that "backdoor" exit routes of suspension and expulsion are explicitly discouraged under recent federal and state policy frameworks, I theorize that the institutional frameworks that identify and respond to "challenging" children within a carceral continuum will diversify, strengthen, and expand an array of "trapdoor" exits via extra-exclusionary measures. This theorization is consistent with the critical conceptual move away from the "school-to-prison pipeline" and toward expansive gestures to the "school-to-prison nexus" (Meiners, 2011), "school-to-confinement pathways" (Morris, 2016), and "educational and penal realism" (Fasching-Varner et al., 2014). The major premise behind trapdoors is that carceral logics are enmeshed in every facet of American society, functioning most prominently to criminalize, medicalize, and disadvantage the "certain" children that Annamma (2016) refers to. Thus, I theorize that in the context of early childhood education, carceral logics continue to operate, diversify, and mutate amid prohibitive, reform-based policies that discourage suspension and expulsion yet are not explicitly antiracist and anti-carceral in formation and implementation.

Critical Race Theory

CRT is foundational to the current inquiry because, as previous chapters demonstrate, inequities in educational opportunities and exits are not neutral to structural racism. Rather, as Joseph et al. (2020) assert in their race-centered and trauma-informed framework for interventions on school discipline, "whether illusive or explicit, race is constantly present in policy, practice, and the school space" (p. 163). Thus, in this section, I review the origins and key tenets of CRT. Then, I describe Ladson-Billings' and Tate's (1995) critical race theory of education. This theoretical framing explains how, "whether illusive or explicit," racialization and power are entrenched in extra-exclusionary trapdoors and underlying structural factors.

Origins and Key Tenets of Critical Race Theory. CRT emerged in the latter decades of the 20th century as counter-legal scholarship amid mainstream legal studies and Critical Legal Studies. Early CRT scholarship targeted "the intersection of critical theory and race, racism and the law" (Crenshaw et al., 1995, p. xxvii) after identifying the "need for a critical theory of racial power and an image of racial justice which reject classical liberal visions of race as well as conservative visions of equal citizenship" (Crenshaw et al., 1995, p. xxviii). Crucially, CRT counters a deterministic perspective that conceptualizes race as standalone and autonomous; rather, race is salient, enmeshed and intersecting with all forms of oppression. Crenshaw et al. (1995) contend that,

> Critical Race Theory aims to reexamine the terms by which race and racism have been negotiated in American consciousness, and to recover and revitalize the radical tradition of race-consciousness… a tradition that was discarded when integration, assimilation and the ideal of colorblindness became the official norms of racial enlightenment. (p. xiv)

CRT is characterized by several key premises. Ladson-Billings (1998), for instance, synthesizes the following: (a) racism is endemic, normal, and naturalized in American society; (b) storytelling and experiential knowledge of racialized oppression are valid and meaningful to the analytic process; (c) liberalism and legal precedence are limited mechanisms of social change; and (d) civil rights legislation engenders benefits to White people and Whiteness. As Crenshaw et al. (1995) formulate in the excerpt above, by centering race and racism through "race-consciousness," CRT rejects the "ideal of colorblindness" and recognizes the explicit and implicit advantages of a racialized society to White dominance through frameworks including *Whiteness as property* (Harris, 1993) and *interest-convergence* (Bell, 1980).

In his seminal law review, Bell (1980) argues that the law is an undependable ally in the struggle for racial liberation. He contends that the traditional liberal image of law as neutral and impersonal masks its function in producing and insulating White dominance. Specifically, Bell asserts that the exclusive focus on school desegregation in the Supreme Court's decision in *Brown* v. *Board of Education* responded to ideals of liberal elite public interest lawyers rather than the actual interests of Black communities and children. Bell (1980) specified,

> I contend that the decision in *Brown* to break with the court's long-held position on these issues cannot be understood without some consideration of the decision's value to whites, not simply those concerned about the immorality of racial inequality, but also those whites in policymaking positions able to see the economic and political advances at home and abroad that would follow abandonment of segregation. (p. 524)

Interest-convergence demonstrates how legal decisions purported to advance the interests of racialized communities come to pass because of — and further function to advance — White dominance. In the realm of education, specifically, Bell (1980) highlights that mechanisms of desegregation codified by *Brown* were insufficient in the face of an array of prolific racialized inequities in public schools:

> Plans relying on racial balance… have not eliminated the need for further orders protecting black children against discriminatory policies, including resegregation within desegregated schools, the loss of black faculty and administrators, suspensions and expulsions at much higher rates than white students, and varying forms of racial harassment ranging from exclusion from extracurricular activities to physical violence. (p. 531)

CRT capacitates an understanding of contemporary education policies and practices, such as zero tolerance, in relation to "a legacy of race-based oppression" (Scott et al., 2017, p. 8). In sum, CRT emerged as a legal theory, broadly instructive in understanding dynamics and hidden dimensions of racialized power and racism, relations of globalization, and directions for antiracist policies that reject "racial essentialism" (Crenshaw et al., 1995, p. xxxi).

Critical Race Theory of Education. Premised on the notion that racism is "so enmeshed in the fabric of our social order" (Ladson-Billings, 1998, p. 11), CRT bears significance beyond legal scholarship. Ladson-Billings and Tate (1995) developed a critical race theory of education to understand social inequities, broadly, and educational inequities, specifically. This theoretical perspective is based on three premises: (a) race continues to be significant in the United States; (b) the United States is based on property rights rather than human rights; and (c) the intersection of race and property creates an analytic tool for understanding social and educational inequities (Ladson-Billings & Tate, 1995, p. 48).

Herein, Ladson-Billings and Tate (1995) deploy Harris's (1993) concept of *whiteness as property* and the "property functions of whiteness," namely, "(1) rights of disposition; (2) rights to use and enjoyment; (3) reputation and status property; and (4) the absolute right to exclude" (p. 59). The way these rights apply to education is foundational to Ladson-Billings and Tate's (1995) thesis, particularly the absolute right to exclude, which is demonstrated by resegregation via tracking, the institution of "gifted" programs, advanced placement classes, and school discipline, for instance. Ladson-Billings and Tate (1995) insist on disentangling democracy and capitalism, which are too often conflated:

> Discussing the two ideologies as if they were one masks the pernicious effects of capitalism on those who are relegated to its lowest ranks. Traditional civil rights approaches to solving inequality have depended on the 'rightness' of democracy while ignoring the structural inequality of capitalism… democracy in the U.S. context was built on capitalism. (p. 52)

Their argument is bolstered by the proposition that gender-based and class-based explanations for social and educational inequities are not powerful enough to explain all of the variance in educational outcomes. Ladson-Billings and Tate (1995) argue that the examination of class and gender, taken alone or as interactions, does not account for the "extraordinarily high rates of school dropout, suspension, expulsion, and failure among African American and Latino males" (p. 51). Thus, a critical race theory of education centers interactions of race, racism, capitalism, and citizenship that "multicultural education" reduces or fails to represent (see Ladson-Billings & Tate, 1995, pp. 60-62).

I engage CRT as a key theoretical perspective to illuminate how exclusionary school discipline may be understood not simply as a product of a punitive society or the political economic condition, but as necessarily intersecting with racist harm perpetrated in and by the system of public education, which ultimately advantages and naturalizes White dominance. Thus, CRT situates exclusionary discipline in preschool within a terrain of structural racism and concretizes the conceptual, sociocultural, and material significance of race in education. Broadly speaking, critical theories animate the subjective and anti-essentialist nature of social phenomena; the importance of standpoint, witness, and testimony; the meaning of culture and interlocking cultural, ancestral, linguistic, spiritual, environmental, and other processes of meaning-making; and the nuanced dynamics and expressions of power, authority, and epistemology.

Desire-Based Epistemology and "Inside-Out" Approaches

Exclusionary discipline is a deficit-centered subject. To make itself make sense, the carceral continuum constructs children, families, teachers, schools, and entire communities as damaged, problems, victims, and/or perpetrators. *Desire-based epistemology* is a "depathologizing" theory of knowledge that Critical Race and Indigenous studies scholar Eve Tuck (2009) developed to resist damage-centered research on communities, particularly Indigenous communities, and account for the "complexity, contradiction, and the self-determination of lived lives" (p. 416). Desire-based frameworks intervene on dominant research paradigms by generating "analyses that upend commonly held assumptions of responsibility, cohesiveness, ignorance, and paralysis within dispossessed and disenfranchised communities" (Tuck, 2009, p. 417). Central tenets of desire-based research include that (a) it must be grounded in assumptions that participants are "worthy of respect and consideration as complex, whole people," and (b) it is "our work as educational researchers and practitioners, and especially as community members, to envision alternative theories of change, especially those the rely on desire and complexity rather than damage" (Tuck, 2009, p. 421).

Lawrence-Lightfoot's (2005) notions of the "beautiful/ugly" and the "power of paradox" revealed through her methodology of social science portraiture are especially instructive for desire-based research frameworks. Lawrence-Lightfoot (2005) emphasizes methodological attention to complexity and contradiction in representations of reality, urging researcher-portraitists to "document the beautiful/ugly experiences that are so much a part of the texture of human development and social relationships" (p. 9). The representations of social reality that desire-based epistemology motivate thus account for the nuance and complexity of the whole subject "in an effort to speak about things that resist reductionism and abstraction, in an effort to challenge the tyranny of the academy, and in an effort to build bridges between research and practice, theory and action" (Lawrence-Lightfoot & Davis, 1997, p. 7). Lawrence-Lightfoot and Davis (1997) also describe the "pathbreaking paradigms" integral to such inquiry:

> Rather than a complicated analysis of the coexistence of strengths and vulnerabilities (usually evident in any person, institution, or society), the locus of blame tends to rest on the shoulders of those most victimized and least powerful in defining their identity or shaping their fate… the focus on pathology seems to encourage facile inquiry. It is, after all, much easier to identify a disease and count its victims than it is to characterize and document health. The former requires focused methodologies that have been well used and developed, the latter invites a more complicated and eclectic set of research tools and some pathbreaking paradigms. (pp. 8-9)

The desire-based epistemological stance in this dissertation generates knowledge beyond traditional frames that "fetishize damage" (Tuck, 2009, p. 422), that suggest that punitive discipline is an acceptable form of maintaining justice or social order in a carceral state, or that assume that children's, families', or teachers' deficits or demographics are root causes of their social and material conditions. Tuck's (2009) call for a "moratorium on damage-centered research" (p. 422) fosters the "inside-out" approach of this dissertation.

"Inside-Out": Womanist Anti-Carceral Praxis as an Approach to Knowledge Production

Desire-based epistemologies encourage novel conceptual and methodological approaches, motivate stronger study designs, and position theoretically-driven critical frameworks to examine structural mechanisms that underly extra-exclusionary trapdoors in ECE. Although a Foucauldian perspective would suggest that the preschool workforce (e.g., the teachers, school leaders, and staff in the target population for this study) are agents of a carceral state intent on producing docile, obedient bodies, a desire-based *womanist anti-carceral praxis* (WACP) epistemological stance would

suggest that these actors "inside" the system are also subject to harms of a carceral state, are armed with critical knowledge, and are agentic, necessary collaborators in actions toward systems-change.

A critical "inside-out" approach prioritizes the testimonies, lived experiences, and knowledges of those closest to the system. Leonardo (2004) posits that "countless authors from Freire to Fanon have suggested that oppression is best apprehended from the experiences or vantage points of the oppressed" and "critical analysis begins from the objective experiences of the oppressed in order to understand the dynamics of power relations" (p. 141). "Inside-out" approaches to knowledge production and the knowledge archive yield critical opportunities, possibilities, and strategies for dismantling structural inequities. In this section, I describe womanism — an anti-oppressive social change perspective — as well as delineate features of feminist anti-carceral strategy and explain the affordances of bridging these "inside-out" frameworks in a praxis perspective on systems-change.

Womanism. *Womanism* is a universal social change perspective rooted in Black women's and other women of color's everyday experiences and "street-level" methods of problem solving extended to the problem of ending all forms of oppression for all people (Phillips, 2006). Alice Walker is typically credited with defining the term "womanist." Walker's (1983) *In Search of Our Mothers' Gardens: Womanist Prose* cemented the link between Walker and womanism. Yet it is important to underscore that there are at least two additional "mothers" of womanism: in 1985, Chikwenye Okonjo Ogunyemi published an article titled "Womanism: The Dynamics of the Contemporary Black Female Novel in English," and in 1993, Clenora Hudson-Weems published *Africana Womanism: Reclaiming Ourselves* (Phillips, 2006). Ogunyemi's work is classified as *African womanism* and Hudson-Weems' work is classified as *Africana womanism*. Phillips (2006) distinguishes that Walker, Ogunyemi, and Hudson-Weems each framed womanism differently, but the important thing to understand is the timing and confluence of effort "to name, and ultimately elaborate, this thing" (p. xx).

Womanism is distinct from both feminism and Black feminism. Some define womanism as a form of feminism, however this is inaccurate. Phillips (2006) asserts that womanism is not feminism, but its relationships to feminism — especially Black feminism — are important. Phillips (2006) describes:

> Womanism's link to gender is the fact that the historically produced race/class/gender matrix that is Black womanhood serves as the origin point for a speaking position that freely and autonomously addresses any topic or problem. Because Black women experience sexism, and womanism is concerned with sexism, feminism is confluent with the expression of womanism, but feminism and womanism cannot be conflated, nor can it be said that womanism is a 'version' of feminism. (p. xxi)

Womanism encompasses and stretches beyond feminism's concern about gender, sexism, and equality between the sexes. Womanism shines a light on "all sites and forms of oppression, whether they are based on social-address categories like gender, race, or class," and each is attended to with equal concern and action (Phillips, 2006, pp. xx-xxi). Moreover, womanism's "relationships to other critical theories and social-justice movements are equally important, despite being less frequently discussed or acknowledged" (Phillips, 2006, p. xx).

Womanism is expansive. Phillips (2006) delineates five overarching characteristics of womanism: (a) it is *antioppressionist*, centrally concerned with ending oppression for all people in all places; (b) it is *vernacular*, connected to the everyday experiences and lives of everyday people united by common concerns; (c) it is *nonideological* and "abhors rigid lines of demarcation and tends to function in a decentralized manner," so instead of creating division, womanism welcomes paradox,

differences, and tension, accommodating "disagreement, conflict, and anger simultaneously with agreement, affinity, and love" (p. xxv); (d) it is *communitarian* and holds commonweal — community welfare, collective wellbeing — as the goal of social change; and (e) it is *spiritualized*, such that all human life, all living things, and the material world are connected. As a social change perspective and framework for action, womanism offers a specific set of methods of social transformation and the unpretentious instruction: "start where you are." According to Phillips (2006), womanist methods of social transformation involve harmonizing and coordinating, balancing, and healing processes. These elements cohere "in and through relationship, reject violence and aggression but not assertiveness, and readily incorporate 'everyday' activities" (Phillips, 2006, p. xxvi).

Feminist Anti-Carceral Approaches. *Feminist anti-carceral approaches*, meanwhile, advance a political orientation and strategic "inside-out" approach that critique and challenge violence as a product of the carceral continuum. Feminist anti-carceral approaches can be understood as counter to *carceral feminism*, a term that signals reliance upon law and legal institutions as dominant intervention strategies to gender-based violence. Anti-carceral feminism takes an activistic approach to challenging the conditions, forms of control, and violence of a carceral state, which affect women-identified people before and after, within and outside of incarceration. This praxis perspective was birthed through critical accounts, expertise, and "inside-out" actions of incarcerated and formerly incarcerated women-identified people. Anti-carceral feminism resists a hegemonic view of a "singular 'feminist movement'" by recognizing multiplicity of feminist histories, challenging the "master narrative" through coalitional and intersectional forms of organization and thinking (Carlton & Russell, 2018, p. 15).

One of the major tenets of feminist anti-carceral strategy is the perspective that systems of unfreedom are intertwined. It is with this understanding that feminist anti-carceral approaches necessitate consideration of broader structural conditions of inequality (e.g., education, housing, health care, food security, employment, transportation) that reproduce the violence, oppression, and injustice of incarceration and the carceral continuum. A radical critique of the prison as a violent institution cannot be understood without reference to power, structures of oppression, and unequal social relations. Feminist anti-carceral strategies look beyond the prison to the social, political, and economic relations that reproduce the continuum of carceral violence. Similar to the objectives of womanist methods of social change, feminist anti-carceral movements "must be positioned within a broader programme of social justice activism and advocacy that aims to dismantle intersecting systems of oppression and eliminate structural inequalities" (Carlton & Russell, 2018, p. 13).

Womanist Anti-Carceral Praxis. Drawing these two lenses together, I conceptualize WACP as an *ethico-onto-epistemological* framework that draws from Barad's (2007) formulation of *diffraction*, signifying inseparable, integrated, and entangled ways of being and ways of knowing amid a changing world. WACP is deeply connected to the history, humanity, and power of Black community organizing in the enduring project of education for freedom, rooted in Black women's intellectual and theological work, everyday experiences, and everyday methods of activism and problem-solving extended to ending all forms of oppression, enclosure, and isolation for all people across all axes of being. This is an ontology of love and loving that is grounded in and radicalized by womanist methods and anti-carceral strategy. In my formulation, WACP is a decentralized, community-driven "inside-out" praxis strategy that confronts how (a) power, violence, and harm exist/persist; (b) reforms perpetuate systems of violence disguised as care or improvement; (c) histories and contexts matter, especially those deemed unofficial or frivolous; (d) resistance efforts must be coalition-based, intersectional, and activistic; and (e) problem-solving requires community representation and voice. Principles of WACP generate new methodologies for addressing systemic anti-Black racism in education and the relation between education and justice.

Summary

This chapter described the theoretical perspectives and epistemological stance that guide this dissertation. Specifically, I engage a Foucauldian theorization of the carceral continuum in conjunction with CRT to animate extra-exclusionary trapdoors in ECE in a context of structural racism and a punitive society. Further, I implement "inside-out" approaches to knowledge production under a heading of desire-based epistemology and WACP. These perspectives anchor this dissertation's design and methodology, which I describe in the next chapter.

Chapter 5: Design and Methods

This study employs a mixed methods convergent design to triangulate and integrate results from quantitative and qualitative methods. This convergent design, as the name suggests, highlights areas of convergence and divergence in themes of extra-exclusionary trapdoors and underlying structural factors. The quantitative strand of this dissertation involves an exploratory factor analysis on data derived from a survey experiment. The qualitative strand of this dissertation involves an integrated analysis of narrative data derived from interviews. The flowchart in Figure A1 (Appendix A) provides an overview of the study flow.

Study Context and Setting

This dissertation uses datasets derived from a study conducted by an interdisciplinary research team as part of a multi-team, multi-study research-practice partnership (RPP) between the University of California, Berkeley's Graduate School of Education and a large public school district in a large city on the West Coast. I was invited to co-lead a strand of the RPP focused specifically on classroom discipline in ECE contexts. Members of the research team were skilled methodologists in psychology, social welfare, education, and political science disciplines. The team represented diverse educational backgrounds from post-baccalaureate to Ph.D. My research and praxis expertise in ECE contexts was a unique and valued contribution to the team's research.

The public school district is the contractor of the state and operates according to local, state, and federal requirements and regulations. During study implementation, the school district operated 28 ECE[8] programs throughout the large city. Preschool enrollment criteria specify that children must turn three years old in early December. Consistent with the system-wide variation discussed in Chapter 2, preschool schedules vary by site in the school district. Families may enroll children in full-day, morning, or afternoon programs, for example. In addition, some programs offer various choices for enrollment (e.g., full-day, morning, or afternoon), while others offer limited choices for enrollment (e.g., morning only). Additionally, a small subset of programs operate as "integrated" special education preschools.

From 2018-2019, the school district served a diverse K-12 student body of nearly 50,000 students, according to the most recent publicly available data reported to the state before COVID-19.[9] Enrolled K-12 students were approximately 24% Black, 10% White, and more than two-thirds of students qualified for free or reduced-price meals.

Finally, data collection occurred in the fall of 2020 and winter of 2021 amid historic moments: a national election, surges in the COVID-19 global pandemic, and events of national Uprisings for Black Liberation, for instance. Amid COVID-19, the school district rapidly transitioned teaching and learning from in-person to virtual classrooms via Zoom.

Population and Sampling Method

This dissertation focused on preschool professionals whose perspectives and experiences "inside" the system of ECE fit the "inside-out" approach needed to explore extra-exclusionary trapdoors. The target population was 190 individuals who were employed to work professionally

[8] Programs included prekindergarten and child development, which I refer to, for consistency, under the heading of ECE or "preschool."

[9] Study implementation occurred during the COVID-19 pandemic, but this dissertation is focused on extra-exclusionary discipline in the broadest sense, not as a function of COVID-19. Future research is needed to fully address the sophisticated picture of preschool and exclusion during the pandemic; Bookser et al. (2021) took a first step in this direction.

with children and families in preschools, including teachers, administrators, and other staff (e.g., instructional assistants). Participants were purposively sampled from a population of 190 professionals at two different study phases: first the survey phase, then the interview phase. All study activities described in this dissertation were conducted while participants were working remotely during the COVID-19 pandemic.

Participants

Study participants were recruited from the population of 190 preschool professionals using a roster provided by the school district. Inclusion criteria for the survey and interview components required that participants worked professionally in preschool programs in the school district. Recruitment aims were modest given the context of COVID-19. Survey participants and interview participants were recruited at two different time points, detailed in the procedures in the following sections. The study treated survey and interview participants as two unique samples and did not link within-participant survey data and interview data. Participant demographics in this dissertation are consistent with the preschool workforce in the general population (e.g., Powell et al., 2021).

The survey sample (n = 60) was majority racially/ethnically minoritized and/or multiracial (83%), female (89%), and teachers (77%), with diverse educational attainment and years of experience in their professional roles in the school district, specifically, and working with children, in general. Nearly half of the survey sample (46%) had more than 10 years of experience in the school district. The majority of survey participants (85%) had more than 10 years of experience working with children in any capacity. A substantial proportion of participants (46%) were among the first-generation of college graduates from their families. There were no significant demographic differences between participants by survey condition.[10]

Similar to the survey sample, the interview sample (n = 24) was majority racially/ethnically minoritized and/or multiracial (88%), female (88%), and teachers (71%), with diverse educational attainment and years of experience in their professional roles in the school district, specifically, and working with children, in general. The majority of interview participants were either relatively new to the school district, with less than 5 years of experience (42%), or veterans of the school district, with more than 10 years of experience (46%). Also, similar to the survey sample, the majority of interview participants (79%) had more than 10 years of experience working with children in any capacity. Additionally, the majority of interview participants (57%) were among the first-generation of college graduates from their families.

Detailed participant demographics for the survey and interviews are provided side-by-side in Table A1 (Appendix A). In addition, the research team's demographic coding approach is described in Appendix B.

Data Sources

Quantitative Strand: Survey Experiment

Survey Procedure. In accordance with the procedure approved by the institutional review board (approval documentation is included in Appendix B), the research team provided school district administration with a template message and weblinks to recruit preschool employees to participate in an online survey. At first, only preschool teachers were recruited. Yet, the school district partner suggested expanding recruitment to include as diverse of a representation of the district's early childhood workforce as possible. Therefore, after the survey launched, recruitment expanded to include all early education professionals working in the district (e.g., instructional assistants). The survey was open to participation over a 36-day period from September – October,

[10] See Bookser et al. (2021) for a detailed synthesis of demographic data by survey condition.

2020. During an approximate midpoint during the survey period, the school district conducted a professional development training for early childhood professionals, wherein the pool of possible participants was reminded by district leadership about the invitation to participate in the survey. All participants provided their informed consent and completed the survey at their convenience during the survey period. The survey period concluded after all who were willing to consent had participated. Each survey participant received a $15 gift card after participation. Based on guidance from the Committee for the Protection of Human Subjects, participants were not forced to respond to any survey items. If participants consented and completed the survey, recording any response, they were included in the survey dataset.

Survey Design, Conditions, and Manipulation. The research team used an online survey platform to host the survey and to randomly assign participants to one of two study conditions, either a virtual classroom context or an in-person classroom context. Participants were first asked to imagine themselves as a prekindergarten teacher managing a "virtual classroom" or a "typical" (in-person) classroom where they took part in disciplining a student. Then, participants were asked to read three vignettes about the same child. Subsequently, participants were asked to respond to survey measures. Participants were not notified that an alternative classroom context existed. Finally, the order of survey items did not vary by participant or condition.

Vignettes. Participants read three hypothetical vignettes about a preschooler's behaviors set in an in-person classroom or a virtual classroom, which occurred at three consecutive time points over the course of three days. The vignettes were selected from a library of 23 vignettes developed by the research team based on child behaviors perceived as challenging in early care contexts (e.g., Schwarzwalter & Danielson, 2008) and previous scholarship examining whether racial stereotypes affect teachers' disciplinary responses over the course of multiple incidents (Okonofua & Eberhardt, 2015). The vignettes were selected because they encapsulated a range of early childhood behaviors and were amenable to in-person and virtual contexts. The vignettes were manipulated using text descriptions (e.g., "a virtual classroom for distance learning") and imagery embedded in the survey (e.g., a photograph of a computer on a desk) to stimulate condition context.

In line with prior studies (see Jarvis & Okonofua, 2020; Okonofua & Eberhardt, 2015; Okonofua et al., 2020), a stereotypically Black male name, "Terrell" (Greenwald et al., 1998), was used to indicate the child's race and gender. After each vignette, participants responded to a series of repeated measures to collect information about how severely they would endorse disciplining Terrell and the extent to which participants felt troubled by his behaviors. The vignettes are provided in Appendix B.

Measures. The survey was developed by the research team for the RPP. Self-report measures were included in the survey to collect data on relevant constructs based on extant literature (e.g., school climate) and social context (e.g., fear of COVID-19). For a review of the full survey and each measure, please see Appendix B and/or the *Supplemental Materials* from Bookser et al. (2021).

The quantitative strand of this dissertation focused exclusively on a set of 15 variables derived from survey items developed by the research team to operationalize dimensions of extra-exclusionary discipline. A subset of these variables were part of Principal Investigator Okonofua's scales used in previous studies, while another subset of these variables were original to the RPP and generated by the research team. These items were designed to elicit participants' perspectives on and attributions about the hypothetical behaviors described in the three vignettes about Terrell at the beginning of the survey. Participants were asked to indicate their responses on 5-point Likert scales (e.g., 1 = *Not at all likely*, 5 = *Extremely likely*). The same items were presented in the same order to all participants, regardless of experimental condition, directly following the vignettes and repeated measures described in the previous section. The research team used theory and extant literature to

determine that this battery of 15 variables was satisfactory for the scope of the current inquiry (see Table 1).

Table 1

Extra-Exclusionary Discipline Variables in Survey Dataset

Item	Variable Name	Description
1	likely troublemaker	How likely are you to say that Terrell acted the way he did because he is a troublemaker
2	likely parenting	How likely are you to say that Terrell acted the way he did because of the parenting he has received
3	likely disability	How likely are you to say that Terrell acted the way he did because he has a disability
4	likely no respect teacher	How likely are you to say that Terrell acted the way he did because he does not respect me as a teacher
5	likely developmental delay	How likely are you to say that Terrell acted the way he did because he is developmentally delayed
6	likely home environment	How likely are you to say that Terrell acted the way he did because of his home environment
7	behave better in future	How likely is it that Terrell will behave better in the near future?
8	positive relationship in future	How difficult will it be to establish a positive relationship with Terrell in the future?
9	ending before circle time	How likely would you be to ask Terrell to start ending his school days before afternoon circle time?
10	recommend repeat a year	How likely is it that you would recommend Terrell repeat a year of prekindergarten?
11	encourage enroll different program	How likely is it that you would encourage Terrell's family to enroll him in a different preschool program?
12	distraction learning environment	How much of a distraction is Terrell to the learning environment?
13	difficulty class on track	How difficult would Terrell's behavior make it to get the class back on track?
14	talking parent improve behavior	How much will Terrell's behavior improve if his parents are contacted?
15	suggest attend other teacher class	How likely would you suggest that Terrell attend another prekindergarten teacher's class?

Quantitative Data Analytic Strategy: Exploratory Factor Analysis. The goal of the quantitative strand of this dissertation was to explore whether participants' perspectives on Terrell's behaviors indicated distinct underlying pathways to trapdoors. Thus, the chosen analytic approach examined whether variations in participants' responses to the 15 survey items were explained by distinct underlying constructs, or *common factors*. The simplest solutions would suggest that one common factor underlies all 15 variables (Revelle, 2022), or that unique factors underlie each measured variable (Watkins, 2021). The aim is to determine the most parsimonious underlying factor structure. Given the exploratory nature of this dissertation, I used exploratory factor analysis (EFA) to test whether, and how well, multiple underlying constructs accounted for patterns of correlations among the 15 observed variables.

EFA is a statistical analysis developed by Spearman (1904). It assumes that covariance patterns between the 15 observed variables can be explained by a smaller number of common factors and "provides a statistical method for empirically assisting in the process of construct identification, rather than exclusively relying on intuition and theory" (Fabrigar & Wegener, 2012, p. 21). All statistical analyses were performed in R version 1.1.463, with libraries including: Amelia,

GPArotation, graphics, MBESS, mnormt, nFactors, psych, and QuantPsyc. The R script is provided in Appendix D.

Model Assumptions. There are several key decision steps and assumptions for EFA (see, for example, Bartholomew et al., 2011; Fabrigar & Wegener, 2012; Watkins, 2021), summarized here. The first major assumption is conceptual: an underlying structure exists. It is assumed that common factors are unmeasured variables that exert causal influence on the measured variables. Put another way, the measured variables (e.g., the 15 variables from the survey) are assumed to be effects of unmeasured factors. Factor loadings provide information about the extent to which each variable relates to underlying constructs. Higher factor loadings indicate stronger relations between observed variables and underlying common factors. As well, higher factor loadings are better measures of the common factors. The second key assumption is that selected variables capture sufficient breadth of common factors. A third key assumption is that there is a linear relationship between the variables. Fourth, fitting the common factor model to the data depends on the distributions of measured variables. Fifth, sample size must be sufficient. Finally, a key assumption is that the sample is representative of the population of interest.

Data Screening and Suitability for EFA. The survey dataset was downloaded from the online survey platform and cleaned by a member of the research team.[11] For the EFA, all variables were converted from factor to character variables, to preserve values, then converted to numeric variables. Following best practices for data screening (see Hoelzle & Meyer, 2013, and Malone & Lubansky, 2012, as cited in Watkins, 2021), this dissertation used statistical and graphical representations of the data to examine score range, linearity, missing data, data distributions, and outliers.

First, the range of scores on the 15 measured variables was considered. Influence on a restricted score range can occur if the sample is more homogenous than the population. The current study included a diverse sample assumed to be representative of the diverse population of preschool professionals in the school district and in the workforce, generally (e.g., Powell, 2021).

Second, the linearity of relationships between variables was assessed using a scatterplot matrix (see Figure A2, Appendix A). As shown in the matrix, many of the variables appear to be linearly related, though some variables appear to share curvilinear or nonlinear relationships.

Third, 80% of participants (n = 48) responded to all 15 extra-exclusionary discipline survey items. Because participants were not forced to respond to any survey items, sample sizes varied across variables in the raw dataset due to non-response. Therefore, the dataset was examined to determine if patterns of missing data existed at variable and/or participant levels. A missingness map generated with the Amelia package visually demonstrated that 15% of raw data was missing, predominantly due to patterns of participant non-response for every item. Ordinary least squares models predicting participants' responses to the 15 items[12] as a function of classroom context condition indicated that there were no significant differences in responses between participants whose vignettes were set in an in-person classroom and participants whose vignettes were set in a virtual classroom (see *Supplemental Materials* in Bookser et al., 2021). Thus, cases with any missing data on the 15 items were omitted from the factor analysis and a new dataset of complete cases was

[11] I acknowledge and sincerely thank Michael Ruiz for his expert project management of the RPP, assistance cleaning the survey dataset, and analytic contributions for our Bookser et al. (2021) manuscript and *Supplemental Materials*, referenced in this dissertation.

[12] For this test, in line with Principal Investigator Okonofua's research program, items 1 and 4 were collapsed into a variable denoted "student agency," items 3 and 5 were collapsed into a variable denoted "student absence of agency," and items 2 and 6 were collapsed into a variable denoted "parent agency."

generated. Demographic data was retained from all survey participants for demographic statistics describing the full survey sample.

Fourth, this dissertation assessed whether outliers were present in the dataset of complete cases by reviewing descriptive statistics to check if minimum and maximum values of variables exceeded possible values (see Table A2, Appendix A). There were no cases where minimum and maximum values of variables were outside the range of 1 to 5, indicating that extreme or invalid values were not present. Additionally, a boxplot was used to visually corroborate this assessment (see Figure A3, Appendix A). In a boxplot, an "outlier" is any data point that is 1.5 times more than the interquartile range of a variable. Under this specification, the boxplot indicated that seven variables contained outliers. Nevertheless, the data points remain within the plausible range of values. Watkins (2021) emphasizes that outliers in a boxplot are "univariate outliers and EFA is a multivariate procedure that necessitates that the multidimensional position of each data point be considered" (p. 49). Thus, the robust Mahalanobis distance (D^2) was computed to measure the distance of each data point from the mean of all data points in multidimensional space, wherein a higher D^2 value indicates observations more distant from the general distribution of observations in multidimensional space, signaling potential multivariate outliers. The D^2 measures suggested two multivariate outlier data points in the dataset (see cases 56 and 3 in Figure A4, Appendix A), however there is no apparent explanation for these outliers. Thus, all data points were retained in the dataset of complete cases for EFA.

Fifth, this dissertation attended to the distributions of measured variables in the dataset of complete cases. One way to assess the normality of variable distribution is to examine skew and kurtosis. Severe univariate nonnormality is evident in skew > 2.0 or kurtosis > 7.0 (Curran et al., 1996, cited in Watkins, 2021). Descriptive statistics (see Table A2, Appendix A) for univariate skew and kurtosis indicated that four variables appeared to exhibit univariate nonnormality, primarily due to skewness: *likely troublemaker*, *likely no respect for teacher*, *encourage enroll different program*, and *suggest attend other teacher class*. Multivariate nonnormality, also known as nonnormal joint distribution, of all variables is indicated by statistically significant kurtosis > 3 to 5 (see Watkins, 2021). Mardia's (1970) multivariate tests indicated multivariate skew = 138.38 ($p < .001$) and multivariate kurtosis = 283.15 ($p < .001$). It should be noted that nonnormality, particularly kurtosis, can bias Pearson correlation estimates and, in effect, EFA results. In this dissertation, the degree of univariate nonnormality was not extremely severe though multivariate nonnormality was notable.

Following the five key stages of data screening, this dissertation assessed the suitability of the data for EFA. Three assessments were used. First, the number of correlations above .30 and below 1.0 was computed. Seventy percent of correlations were above .30 and none exceeded .90, suggesting sufficient covariance in the dataset to justify conducting EFA. Additionally, the determinant of a full correlation matrix was computed to assess likelihood of multicollinearity. The determinant was 6.48e-06, lower than the threshold of .00001, indicating that multicollinearity was likely not an issue (Field et al., 2012, cited in Watkins, 2021). Second, Bartlett's (1950) test of sphericity was used to assess the suitability of the correlation matrix for EFA. The test rejected the hypothesis that the correlation matrix was an identity matric, $X^2(105, n = 48) = 491.79$, $p < .001$. Third, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was computed. The KMO measure of sampling adequacy is acceptable at ≥ .50, though most experts recommend > .60 as a minimum threshold for acceptability. In this dissertation, the overall measure of sampling adequacy was .78, with individual variable measures of sampling adequacy ranging from .67 to .86. In summary, the three assessments indicated that the dataset was suitable for EFA.

Factor Extraction Method. There are numerous methods of factor extraction. Maximum likelihood and least squares (e.g., ordinary least squares, principal axis, iterated principal axis) factor

extraction methods are the most important to distinguish. Watkins (2021) reviews approaches to factor extraction methods based on characteristics of the dataset. The literature indicates that common factor analysis using maximum likelihood extraction is robust with large samples and assumes that the measured variables have multivariate normal distributions. Meanwhile, for nonnormal distributions and smaller samples, least squares extraction methods may be ideal. Still, researchers have found that varied extraction methods tend to produce similar results (Tabachnick & Fidell, 2019, cited in Watkins, 2021). Given findings of the data screening, this dissertation used a least squares method, principal axis factoring, for factor extraction.

Number of Factors to Extract. Factor extraction should achieve the most parsimonious factor structure underlying the measured variables. Watkins (2021) specifies that extracting too few factors can collapse factors and mask the true factor structure solution, while extracting too many factors introduces granularity to the factor structure solution and can hinder interpretation. Thus, to determine the number of factors to extract, this dissertation used two empirical guidelines: Horn's (1965) parallel analysis criterion and Cattell's (1966) scree plot of *eigenvalues*. Eigenvalues can be understood as measures of "the relative importance of each factor" (Watkins, 2021, p. 70). First, parallel analysis compared eigenvalues from simulated random correlation matrices to eigenvalues from the observed correlation matrix. The criterion requires that factors with eigenvalues above the mean of those in the simulated data should be extracted. Parallel analysis scree plots of eigenvalues of factor analysis and principal components analysis[13] of actual data and of simulated data are presented in Figure A5 in Appendix A. The parallel analysis supported extracting two factors. Second, a scree plot was used to visually examine changes in the slope of eigenvalues, which also supported extracting two factors (see Figure A6, Appendix A). To ensure that under-extraction was not an issue, this dissertation fit candidate models with both two- and three-factor solutions. Thus, models with two factors and three factors were evaluated sequentially.

Factor Rotation. Rotational methods enhance model interpretation. This dissertation employed oblique rotation using oblimin transformation. Oblique rotational methods are useful for realistic and rigorous factor structures because they rotate factors on independent axes and allow factors to correlate in cases where correlation improves the simplicity of factor loadings. Still, many methodologists agree that there are theoretically infinite, and thus indeterminant, rotational orientations of factors in multidimensional space (see Watkins, 2021, p. 85). Thus, the models were evaluated for interpretability and theoretical perspectives as well.

Factor Loadings. Because oblique rotational methods (e.g., oblimin transformation) allow factors to correlate, two types of factor loadings (pattern coefficients and structure coefficients) were produced (see Watkins, 2021, p. 87). The relationship between an underlying factor and a measured variable is quantified by the pattern coefficient, excluding the effects of other variables on the relationship. Structure coefficients, meanwhile, quantify the correlation between an underlying factor and a measured variable, ignoring the effects of other variables on the relationship. Pattern coefficients can be greater than ±1.00, while structure coefficients must range from –1.00 to +1.00. Typically, both pattern coefficients and structure coefficients should be interpreted, but model evaluation should focus especially on pattern coefficients and factor intercorrelations; structure coefficients can be consulted after the final model has been evaluated to support construct identification. The literature presents differing assessments of factor loadings. This dissertation focused on pattern coefficients when reporting factor loadings and employed Morin and colleagues' (2020) specification that loadings ≥ .50 are satisfactory and "salient."

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[13] Principal components are not the subject of the quantitative strand of this dissertation. Thus, I use parallel analysis only to examine the number of factors in the actual data. Still, as shown in the parallel analysis scree plot output, parallel analysis is also useful to understand the number of components in the actual data.

Partitioning Common and Unique Variance. Factor analysis is useful for computing the proportions of a measured variable's total variance that are (a) common because of a shared underlying factor, and (b) unique because of variance specific to that measured variable. The sum of common variance and unique variance is 1 (or 100% of total variance). This dissertation computed proportions of variance explained by each factor based on eigenvalues from the rotated solution. Common variance is represented by *communality*, which is a value between 0 and 1. *Unique* variance encompasses "specific" variance and "error" variance. When a measured variable's communality approaches 1, it means that the extracted factors explain more variance in that variable.

Model Selection. To summarize the above specifications, there are several empirical guidelines and diagnostics that this dissertation specified prior to implementing EFA. These included (a) specifying model assumptions; (b) screening the dataset (e.g., score range, linearity, missing data, data distributions, and outliers) and assessing the covariance matrix to determine suitability for EFA; (c) specifying principal axis factoring, which is a least squares method suiting the nonnormal distributional characteristics of the dataset, as the factor extraction method; (d) conducting assessments to corroborate the number of factors to extract, which yielded two-factor solutions; (e) specifying a plan to fit models with two- and three-factor structures; (f) specifying the use of oblique rotation (e.g., oblimin transformation); (g) specifying a primary focus on pattern coefficients; (h) specifying that a threshold of ≥ .50 was satisfactory and salient for factor loadings (Morin et al., 2020); and (i) specifying use of the rotated solution to generate eigenvalues for computing percentages of total variance accounted for by each factor.

Additionally, this dissertation heeded guidelines for model selection enumerated by Watkins (2021), namely (a) establishing a threshold for *salience* that is practically and statistically meaningful (e.g., this dissertation uses ≥ .50 for pattern coefficients in combination with estimates of reliability using Cronbach's alpha for confidence intervals for the factor loadings); (b) attending to model simple structures; (c) assessing model fit using root mean squares of residuals (RMSR), Bayesian information criterion (BIC), the Tucker-Lewis index (TLI) of factoring reliability, and root mean square error of approximation (RMSEA); (d) attending to symptoms of model misfit due to over-factoring; and (e) attending to symptoms of model misfit due to under-factoring.

Approach to Interpretation. Construct identification was guided by theoretical reasoning and researcher knowledge of extant literature to interpret underlying dimensions of extra-exclusionary trapdoors. Fabrigar and Wegener (2012) emphasize that "a factor analysis model is only useful if it provides a conceptually sensible representation of the data" and that "the final rotated solution for each factor be readily interpretable" (p. 65). The process of interpretation involves assessing what measured variables are influenced by the same common factor to interpret the theme of the underlying construct. Fabrigar and Wegener (2012) posit that "there must be a common theme to all variables loading on the same factor" and just as important, all of the measured variables that do not load on that factor "must be plausibly judged as unlikely to reflect the hypothesized construct. That is, no measured variables failing to load on the factor should also share this theme with the measured variables that do load on the common factor" (p. 66). According to Bartholomew et al. (2011), interpretation is a process where "in essence we ask what is it these variables have in common" (p. 36). Fabrigar and Wegener (2012) also assert that measured variables that load onto more than one factor "can be plausibly interpreted to be influenced by more than one construct. For some measured variables, this is not only reasonable, but to be expected" (p. 66). This dissertation ultimately engaged on researcher knowledge of the literature, theory, and consultation with colleagues to interpret and identify underlying constructs.

Qualitative Strand: Interviews

Interview Procedure. Following the procedure approved by the institutional review board (approval documentation is included in Appendix B), the research team recruited participants for one-hour interviews on Zoom by sending invitations via a template email message. The recruitment email described the study and contained a weblink to an online survey platform, which was used to obtain participant consent, demographic information, and the participant's preferred interview appointment time based on a list of possible dates and times provided by the research team. Subsequently, a member of the research team provided each participant with a calendar invitation and Zoom information. Email correspondence was standardized across participants to the greatest extent possible using template messages (see Appendix B for examples). Each participant was interviewed only once. Two members[14] of the research team, myself and another female team member, conducted interviews. I conducted 21 of the interviews. All interviews were recorded and transcribed using verbatim transcription, either via Zoom's built-in transcription (for 3 interviews) or Rev's transcription service (for 21 interviews). Transcripts were not returned to participants for comment or correction. Interviews occurred from January – February, 2021. The interview period concluded after the scheduling period ended and after all who were willing and consented had participated. Each participant received a $50 gift card after their interview.

Interview Design. This dissertation employed nonschedule standardized interviews to collect qualitative data (Richardson et al., 1965). Nonschedule standardized interview design holds three assumptions: (a) for the meaning of a question to be standardized, questions should be asked in language that is familiar to each participant; (b) there is no fixed sequence of questions, but rather, questions should be covered in a sequence that the participant is ready and willing to answer over the course of the interview; and (c) ensuring that participants are studied carefully and that interviewers are trained skillfully will ensure that questions and the sequence of questions achieve the same meaning across all interviews (Richardson et al., 1965, pp. 46-51). Therefore, across all interviews, questions were asked in more or less the same order, with generally the same wording. On occasions when participants did not understand a question, the researcher rephrased or repeated the question, and/or provided an example. Using nonschedule standardized interview design created space for the interviewer and participant to move within and between concepts with characteristic flexibility and depth, consistency and dynamism in each interview conversation.

Interview Protocols. Interview protocols were designed to systematically elicit participants' descriptions of their experiences, attitudes, and beliefs (see Appendix B). Interview protocols were drafted and reviewed by the research team, and also reviewed in consultation with dissertation research mentors. The protocols included items about participants' knowledge and experiences of classroom discipline, with particular attention to coping with children who behave in ways considered challenging. Also, the interviews contained questions to elicit information about ecological context. Areas of interest included the child context, the family/home context, the classroom context, and the school's neighborhood/community context. Finally, because the study occurred amid the COVID-19 pandemic and distance learning was a salient issue that the school district faced — similar to districts serving pre-K-12 populations across the nation — the interview sought to understand participants' perspectives on working with children and families in the virtual classroom context, as well as their perspectives on distance learning and in-person learning in the context of the pandemic.

Three interview protocols were developed. All of the protocols covered domains germane to the study, yet each differed in subtler ways to capture perspectives specific to the participant's role (teacher, school leader, or staff). Roles were self-identified during the interview scheduling process.

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[14] I express my sincere gratitude and appreciation to Ayomide Olu-Odumosu for her superior contributions to the research design and data collection for the qualitative strand of this study.

For example, if a participant self-identified as a school leader, they were asked specific questions that would elicit perspectives based on their leadership role, such as, *Before COVID-19: How often were prekindergarten children sent to your office or the administrative office?* and, *What goals or initiatives is your school focused on?* Meanwhile, if a participant self-identified as a teacher, they were asked questions such as, *How does the school leadership support teachers?* Additionally, if a participant self-identified as a staff member, they were asked similar but different questions, such as, *How does the school leadership support you?* Finally, interview protocols did not include questions to elicit information about demographic profiles of children or families for two key reasons: (a) empirically, racialized and minoritized populations of children and families are disproportionately subject to exclusion; and (b) theoretically, extra-exclusionary discipline is enmeshed in dynamics of the carceral continuum and structural racism. Thus, to answer the specified research questions, the interview protocol attends to the myriad modalities of exclusion and structural underpinnings of exclusion rather than empirical assessment of individuals subject to exclusion.

Qualitative Data Analytic Strategy: An Integrated Process. The goal of the qualitative strand of this dissertation was to conduct an issue-focused analysis of two areas: themes of trapdoors and themes of associated underlying factors. Interview data collection and analyses were not conducted simultaneously, which diverges from typical methods in qualitative research (Meyrick, 2006). Instead, the process of interview analysis occurred after data collection was complete.

The analytic strategy involved an integrated process of deductive, inductive, and abductive approaches to derive themes from interview data. The analysis process was iterative and involved moving within and between interview transcripts during coding, which is described in the next section. The deductive approach was used primarily to distill themes of extra-exclusionary discipline based on the operationalization of this concept in the dissertation (e.g., disenrollment, early release, etc.), and the inductive approach was used to distill themes representing underlying factors that influence extra-exclusionary discipline (e.g., classroom/school context, community context, etc.). Additionally, abductive analysis was integrated with the deductive and inductive approaches to aid theory-generation, specifically given the novelty of extra-exclusionary discipline and the corresponding conceptualization of trapdoor architectures. According to Timmermans and Tavory (2012), abductive analysis "specifically aims at generating novel theoretical insights that reframe empirical findings in contrast to existing theories" (p. 174). One of the distinct features of the abductive analytic approach is that it "depends on the researcher's cultivated position" as a "theoretically sensitized observer" of the data (Timmermans & Tavory, 2012, p. 173). This dissertation followed Timmermans and Tavory's (2012) three key methodological steps to maximize the possibilities of an abductive approach: (a) revisiting the phenomenon of interest given existing theoretical frameworks; (b) defamiliarization, by engaging inscription of data through transcripts and notes so that these objects can be revisited "anew"; and (c) alternative casing, by considering varied conceptual and theoretical frameworks throughout coding and synthesis processes.

Cleaning, Coding, and Synthesis Process. Prior to analytic coding, I completed two rounds of data cleaning to prepare interview transcripts for analysis. The first round of cleaning involved reading all transcripts and redacting identifiers (e.g., names of people, locations, organizations, events) that could compromise participant confidentiality. The second round of cleaning involved listening to interview audio and reading interview transcripts simultaneously to ensure accuracy. This process typically involved small spelling and punctuation revisions to ensure accuracy and consistency (e.g., "preschool," not "pre-school," or "ECE," not "easy"). The cleaning process was also used to generate a glossary of all acronyms referenced during interview conversations. A complete list of acronyms used in this dissertation is provided in Appendix C.

I coded all transcripts in Dedoose. *Coding* is a process of classifying data, a means of "generating concepts from and within" the dataset; meanwhile, *codes* are heuristic ideas that link

narrative data with sets of concepts or ideas (Coffey & Atkinson, 1996, p. 26). The initial code structure was developed using a deductive approach corresponding to the main areas of interview protocols (e.g., child context, family context, classroom/school context) and corresponding to key constructs of interest (exclusionary discipline, extra-exclusionary discipline), which were integral to the research questions and study design. Subcodes for each broad code were developed using an iterative process. The final code structure was established (see Appendix B) after two rounds of coding, first using the initial code structure, then using a refined code structure, on a preliminary set of four interview transcripts. Then, the final code structure was applied to the dataset of 24 transcripts to generate a comprehensive set of coded narrative data. The synthesis process was conducted by exporting coded excerpts to Excel spreadsheets, which were *indexed* to build a thematic framework, and *charted* to organize excerpts according to the thematic framework (Pope et al., 2000). Excerpts presented in the results and discussion were selected as seminal representations of elements of the thematic framework.

Rigor and Validity. This dissertation adheres to two key principles, *transparency* and *systematicity*, which are characteristic of quality, rigorous research processes and analyses (Meyrick, 2006). Additionally, this chapter, and subsequent chapters wherein I present results, follow Tong and colleagues' (2007) consolidated criteria for reporting qualitative research (COREQ). In addition to the extensive detail describing the study methodology, results, and interpretations, this dissertation also included two procedures for validity: (a) an audit trail (e.g., Carcary, 2009) delineating the process of qualitative data management and analysis (see Appendix B); and (b) *triangulation*, which was used to examine quantitative and qualitative data in an integrated process to identify areas of convergence and divergence in results. Further, participant data across surveys and interviews was not linked; there was no attempt to conduct within-participant analyses between survey and interview data. Rather, survey data and interview data were analyzed separately. Finally, this study did not use participant-checking to solicit participant feedback on findings; however, the dissemination plan for the full research team involves conferring with the school district to discuss RPP findings.

Approach to Integrating Quantitative and Qualitative Results

The integration of the quantitative and the qualitative results builds a "coherent whole" (Creswell & Plano Clark, 2018, p.219), a complete blueprint of trapdoor exits from ECE, by articulating the forms and underlying dimensions of extra-exclusionary discipline. Creswell and Plano Clark (2018) specify that "the intent of integration in a convergent design is to develop results and interpretations that expand understanding, are comprehensive, and are validated and confirmed" (p. 221). This dissertation merges the quantitative and qualitative results to answer RQ3, the mixed methods research question, through a process of narrative comparisons and joint display. The process of interpretation is framed by critical theories and grounded in desire-based epistemology, specifically with attention to the "beautiful/ugly" complexity, convergence, and divergence of results.

Reflexivity and Positionality

Reflexivity is "the process of critical self-reflection about oneself as a researcher (own biases, preferences, preconceptions), and the research relationship (relationship to the respondent, and how the relationship affects participant's answers to questions)" (Lincoln & Guba, 1985, cited in Korstjens & Moser, 2018, p. 121). Reflexivity is a criterion central to quality and transparency in qualitative research (Korstjens & Moser, 2018), and is part of a critical paradigm (Creswell & Miller, 2000). Consistent with an "inside-out" approach to knowledge production, I recognize how my dual consciousness as a research scientist and as a former practitioner inform my approach to study

design, data collection, and interpretation. Moreover, my positionality as a White, middle-class, professional student with a decade of experience in early childhood settings may have influenced how interview participants chose to share their experiences with me compared to my colleague. During data collection, when possible and appropriate, I shared briefly with district partners and with interview participants about my background as a preschool teacher and as a clinical mental health trainee in preschool classrooms. I judged this personal information to be relevant and beneficial as I fostered rapport with partners and participants. Many times, at the close of our interview conversations, participants extended meaningful invitations to me to visit their classrooms so that I could observe their pedagogy and praxis, bringing to life what they shared in the interview. During interviews, my co-researcher and I sought to express affirmation, attention, and care toward participants' full humanity and experiences. Feedback from participants indicated that in our study, they felt welcome and respected in conversation.

More broadly, my interdisciplinary professional perspective and personal development are framed under a broader heading concerned with eradicating social injustice, harm, enclosure, and exploitation. Mine is a project guided by deep commitment to listening to, believing, trusting, citing, and learning from Black, Indigenous, and incarcerated people, women, trans and queer folk, and young people. Lawrence-Lightfoot and Davis (1997) specify that the autobiography of the researcher shapes the voice, vision, and presentation of the research process and product, but at the same time, personal history must not drown or dull the "central story" at the heart of the research (p. 105). Thus, it was important to this dissertation design to be rooted in a community of inquiry through the RPP, as this fit with the desire-based epistemological approach grounding this research. Additionally, I engaged in regular consultation with interdisciplinary colleagues within and outside of the research team to reflect on results and interpretations.

Approach to Ethical and Responsible Scholarship

All study activities were conducted in accordance with specifications in Protocol ID 2017-05-9921 (Principal Investigator Okonofua) and Protocol ID 2017-04-9855 (Principal Investigator Okonofua) approved by the Committee for the Protection of Human Subjects at the University of California, Berkeley (as noted, please see Appendix B for approval letters). Additional data security protections for this study included the use of a university-hosted, secure, web-based file management server environment that allowed for remote access to data files (via Box) and a workstation that is protected with physical and electronic security measures. All participant identifiers (e.g., names, emails) were removed from the datasets and replaced with alphanumeric identifiers prior to analyses. Pseudonyms were generated for all interview participants. Finally, I hold CITI certification for conducting ethical research with human subjects and have been trained in the best practices and procedures for protecting sensitive and confidential information.

Chapter 6: Underlying Factor Structure

The aim of the quantitative strand of this dissertation was to explore whether participants' perspectives on hypothetical behaviors by a Black boy, Terrell, indicated distinct underlying dimensions of extra-exclusionary discipline. To answer RQ1, *Do unmeasured common factors account for variance in measured extra-exclusionary discipline variables?*, two plausible models (two-factor and three-factor structures) were evaluated using principal axis factor extraction with 100 iterations and oblique (oblimin) rotation.

Descriptive Statistics

Descriptive statistics were computed for survey variables and presented in Table A2 and Table A3 (Appendix A). In general, mean scores were low across all variables, ranging from 1.21 for *likely troublemaker* to 3.25 for *behave better in future* (Table A2).

Exploratory Factor Analysis

Two variables, *talking parent improve behavior* and *behave better in future*, demonstrated extremely low communality and high uniqueness, and did not contribute to the simple structure. The variable *talking parent improve behavior* was not explained by any underlying factor. The variable *behave better in future* had a negative, low factor loading. Reverse scoring the values of *behave better in future* did not provide remedy. Thus, the two items were removed from the models. The plausible two-factor and three-factor models using principal axis factor extraction were fit using the remaining 13 variables.

Two-Factor Model

A path diagram of the two-factor model is shown in Figure 1 (this section). The two-factor model indicated reasonable parameter estimates, proper convergence, and five and four salient loadings on the first and second factors, respectively, in the simple structure.

Model Evaluation. The two-factor model was evaluated according to the guidelines recommended by Watkins (2021), which included assessing the salience of factor loadings, reliability, model fit, and symptoms of over- and under-fitting.

Salience. Five variables loaded saliently on the first factor: *encourage enroll different program*, *likely no respect teacher*, *suggest attend other teacher class*, *likely troublemaker*, and *recommend repeat a year*. Four variables loaded saliently on the second factor: *likely disability*, *likely developmental delay*, *distraction learning environment*, and *likely home environment*.

Reliability. The variables that saliently loaded on each factor were combined to create scales. For the first factor, Cronbach's alpha was .91 with a 95% confidence interval ranging from .86 to .95. For the second factor, Cronbach's alpha was .89 with a 95% confidence interval ranging from .83 to .94. The first and second factors appear to have well-constructed scales with acceptable reliability.

Model Fit. The RMSR was acceptable at .07, BIC was –80.62, TLI of factoring reliability was .73, and RMSEA index was .17 and the 90% confidence interval ranged from .13 to .21.

Symptoms of Over- and Under-Fitting. The two-factor model did not demonstrate symptoms of over- or under-fitting. The intercorrelation coefficient was .50 and did not pose a threat to discriminant validity.

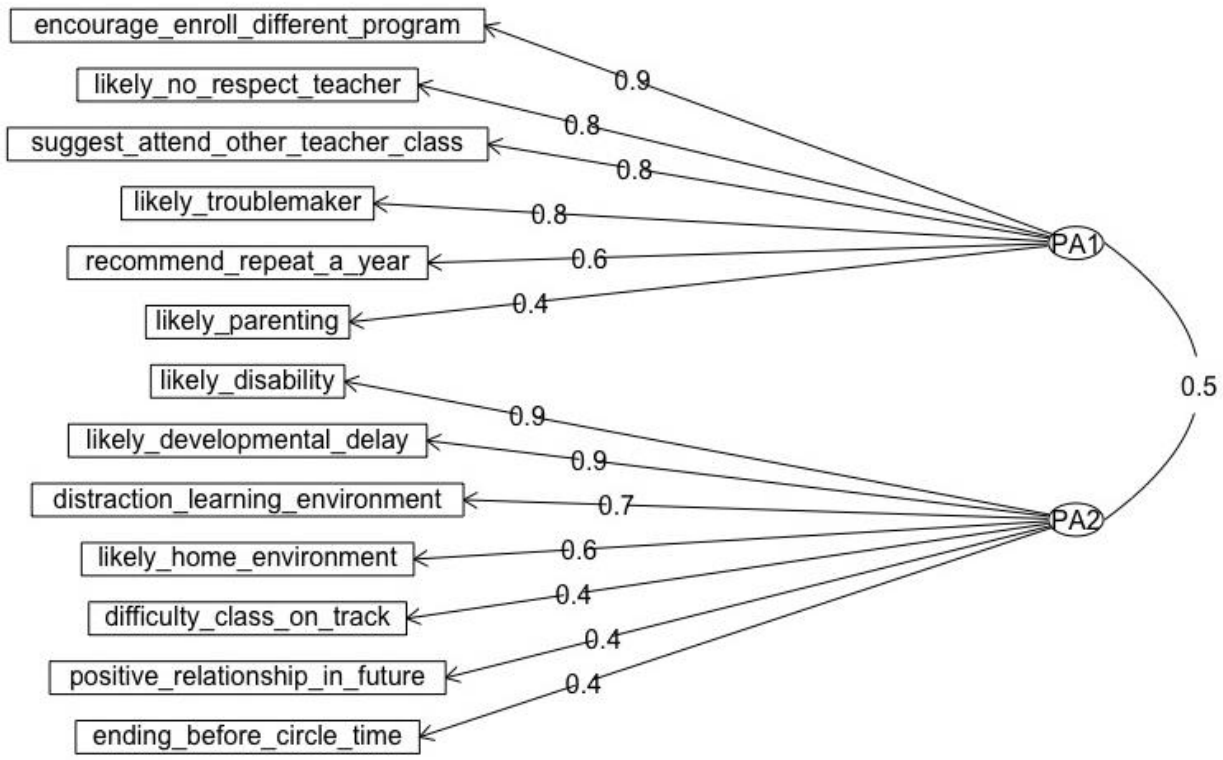
Three-Factor Model

A path diagram of the three-factor model is shown in Figure A7 (Appendix A). The model showed symptoms of over-extraction, namely a third factor with only one salient loading, known as

a "singlet." The presence of the singlet disqualifies the three-factor model from any further consideration.

Figure 1

Path Diagram of Two-Factor Model Factor Structure



Note. The path diagram above shows the first and second underlying factors extracted through principal axis factoring with oblique (oblimin) rotation, "PA1" and "PA2," respectively. The solid lines with arrows indicate the direction of each underlying factor's effects on the measured variables. The line connecting PA1 and PA2 indicates factor inter-correlation. Pattern coefficients representing factor loadings are shown on each line.

Final Model Selection and Construct Identification

Models with two- and three-factor solutions were sequentially evaluated according to several pre-specified guidelines. The two-factor model, which used principal axis factor extraction and oblique (oblimin) rotation, is the most parsimonious solution and demonstrated acceptable model fit. The structure matrix indicated that the two factors in the rotated solution accounted for 81% of the total variance of the 13 measured variables, with the first and second factors accounting for 42% and 39% of total variance, respectively. Communalities tended to be robust (ranging from .34 to .85). The factor intercorrelation coefficient was .50. Pattern coefficients and variance statistics are shown in Table 2 (this section). Structure coefficients are presented in Table A4 (Appendix A).

The variables that loaded saliently onto the factors reflect two distinct themes. The five measured variables that loaded saliently on the first factor suggest that Terrell is incorrigible (e.g., *encourage enroll different program*, *likely no respect teacher*, *suggest attend other teacher class*, *likely troublemaker*, and *recommend repeat a year*). The four measured variables that loaded saliently onto the second factor suggest that Terrell is untreated for a suspected disorder (e.g., *likely disability*, *likely developmental delay*,

distraction learning environment, and *likely home environment*). Considering the pattern and structure coefficients for the relationships between the measured variables and underlying factors, as well as theory, the results suggest that the first factor is characterized by *correction* and the second factor is characterized by *treatment*.

Table 2

Pattern Matrix for Two-Factor Model

Variable	Factor 1 Loading	Factor 2 Loading	Communality	Uniqueness	Factor Complexity
encourage enroll different program	**.888**	-.076	.726	.274	1.01
likely no respect teacher	**.826**	.008	.688	.312	1.00
suggest attend other teacher class	**.826**	.092	.767	.233	1.02
likely troublemaker	**.816**	-.119	.582	.418	1.04
recommend repeat a year	**.634**	.293	.673	.327	1.41
likely parenting	.400	.264	.336	.664	1.73
likely disability	-.054	**.946**	.847	.153	1.01
likely developmental delay	-.114	**.904**	.726	.274	1.03
distraction learning environment	.208	**.689**	.662	.338	1.18
likely home environment	.243	**.592**	.553	.447	1.33
difficulty class on track	.362	.444	.490	.510	1.92
positive relationship in future	.284	.443	.403	.597	1.70
ending before circle time	.350	.418	.444	.556	1.94

Note. Salient factor loadings are indicated in bold text in the corresponding factor column. The factor complexity of each variable is presented; a complexity of 1.00 indicates "perfect" simple structure.

Summary

This chapter presented the results from the EFA for the quantitative strand of this mixed methods convergent dissertation. EFA indicates that two underlying dimensions account for variance in measured extra-exclusionary discipline variables. The two-factor model was the most parsimonious, best fit solution. The salient measured variables cohered around two distinct themes: the first factor suggested an underlying dimension of *correction*, and the second factor suggested an underlying dimension of *treatment*. These underlying dimensions shed light on trapdoor exits for Terrell.

Chapter 7: Themes of Extra-Exclusionary Discipline and Underlying Factors

The aim of the qualitative strand of this dissertation was to answer RQ2, *What themes and associated underlying dimensions of extra-exclusionary discipline emerge from preschool professionals' interview narratives?*, using an integrated analysis of preschool professionals' interview narratives.

Descriptive Information

Twenty-six preschool professionals from the school district consented to participate in interviews. Two did not participate in interviews at the scheduled times and/or did not respond to research team follow-up. Twenty-four interviews were conducted, ranging from 25 to 64 minutes and lasting an average of 45 minutes. Participants included teachers (n = 17), staff (n = 4), and school leaders (n = 3).

Themes of Extra-Exclusionary Discipline and Underlying Factors

This dissertation conceptualized extra-exclusionary discipline as the array of methods of exclusion that operate in covert, unconventional, and undocumented ways to achieve the same exclusionary ends as exclusionary discipline measures (e.g., suspension, expulsion). Participants tended to emphasize that exclusionary discipline was exceptionally rare in their preschool programs, consistent with my expectations given prevailing policy and guidance from regulatory bodies that discourage and prohibit these measures. Reflections from Byron, a preschool staff member, underscore the rarity of "suspension" among preschool populations:

> Interviewer:
> Are there any children from your school who were suspended or expelled last year? If so, what happened?
>
> Byron:
> And you're talking about preschool kids, right?
>
> Interviewer:
> Yes.
>
> Byron:
> Yeah. No.
>
> Interviewer:
> No?
>
> Byron:
> No.
>
> Interviewer:
> Okay. So, what are your expectations for —
>
> Byron:
> Wait, wait, wait, wait. Hold it, let's back up.
>
> Interviewer:

Mm-hmm? (affirmative)

Byron:
You say "suspended." But see, we don't usually use the term. We might have a child, I just recalled a child coming to school, not being around other children and not being verbal, able to express themselves. They have a child and might ha-, might bite. B-, but so therefore they're a "biter." They're called a "biter."

Interviewer:
Hmm. Mm-hmm. (affirmative)

Byron:
Might keep them at home for a few, a few days. Three to fi-, three to five days. Whatever the, the contract agreement is. To get them to learn and kind of miss school somewhat, and want to come back and learn. But besides having a "biter," that's probably about it. So.

Interviewer:
Oh, okay.

Interviewee:
I wouldn't really call it, I wouldn't really call it a suspension, but —

Interviewer:
Yeah.

Interviewee:
— it could be called suspension, you know. Yeah.

Byron's narrative articulates how trapdoors are hidden in plain sight, "You say 'suspended.' But see, we don't usually use the term." Byron's acknowledgment, "it could be called a suspension," shines a light on the importance of this project. Byron's narrative illustrates how traditional frameworks of defining and regulating suspension and expulsion do not encompass extra-exclusionary discipline, even though these measures have some of the same ends, "keep them at home for a few days," and rationales, "get them to learn and kind of miss school somewhat."

In the sections that follow, I parse out the murkiness of extra-exclusionary trapdoors, illuminated by Byron's concession, "it could be called a suspension." Based on my integrated deductive, inductive, and abductive analyses of interview data, I introduce a typology of extra-exclusionary discipline: *disenrollment*, *early release*, *in-school*, *referral*, and *virtual* measures. As well, I discuss themes of underlying ecological and structural factors that shape each trapdoor: the conceptualization of a *deviant* child, the characterization of *distrust* toward families, and the vulnerabilities wrought by a *disconnected* ECE system. I present salient excerpts from narrative data to illustrate evidence of the breadth and depth of themes. In these excerpts, ellipses are used to indicate moments of pause, or they are used to indicate that speech is omitted for the purpose of brevity and clarity. Consistent with my approach to desire-based research, I care to contextualize excerpts within the complex personhood and full humanity of individuals who participated in this study, rather than simply extract choice excerpts as evidence. I want readers to approach this subject matter with sensitivity and understanding of participants' varied backgrounds, perspectives, philosophies, and aims, for example. Taken together, the narrative data sketch a complex blueprint of structural and

ecological factors concealing trapdoors within a carceral continuum inseparable from structural racism.

Disenrollment: Leaving for Good

Disenrollment was operationalized as a child's permanent exit from a preschool program. The data indicated that there were numerous practical reasons that families might choose to disenroll their child from preschool. These included, for instance, families' needs and desires to shorten the commute from home to school, to enroll their child in a school with a different schedule (e.g., full-day instead of half-day programming), and to move to a different geographic area. Disenrollment was also characterized by trapdoor architecture. Omi's narrative is especially illustrative.

Omi is a preschool teacher who shared that teaching preschool "just kinda fell in my lap… It wasn't a desire, but I have a passion for it now, and I've had it for years, and I love what I do." Omi's upbringing in her home, school, and community context shaped her perspective on her work with children. She summarized, "I think my experience, my education, um, the people that I was surrounded with, really kept me focused and alert on how the world is, and, and what I wanted to bring to children." Her expectations for preschoolers are to "be friendly and kind, and be respectful, and be safe and healthy." She explained that, guided by her emphasis on social and emotional learning, "I don't have a 'time-out chair.' I have a 'calm-down chair.'" Omi further explained that when children navigate disruptions at home or challenges in the classroom context, for example,

> I want the kid to be able to, um, express himself, you know, whether it's good or bad. I want them to tell… me how they feel. Tell me you don't like what I'm teaching. Tell me you don't like what I did or like what I said, and I wanna know about it. And I can tell you how I feel, so that's how we feel… I want them to be able to have that freedom to express themself, but also know how to draw the line, too.

Omi's narrative highlights how disenrollment was a consequence of a breakdown in collaborative efforts to support a child. Omi explained the devastation of her experience with one child in particular, which ultimately led to disenrollment:

> Over the last five years, uh, I had to put out one child. He was very disruptive. He was very violent. And I worked with him as long as I could, but he was to the extreme where he, and then he became a runner, you know, and it just wasn't safe anymore… And I worked as long, I worked with him for months. Smart. Just, you know, he was throwing things, breaking things. And it was like, every day. So, it was like, and I, I went to half-a-day, and then I ended up having a conversation with the mother. And, of course, I called the site administrator, I said, "We're gonna have a meeting." And she just said, "Forget it," and she left. So, that was, that would probably be my worst experience for that.

Omi's narrative exposes how frameworks of risk are deployed to negotiate "disruptive" situations in the preschool classroom. In Omi's perspective, the child was "very violent," "to the extreme," and eventually, "a runner." Like Omi, many participants described children who escape, who elope, who run away. For instance, preschool teacher Sunny explained that her expectations for preschool children's behaviors in her classroom involve that "they're learning to be friendly, that's what we're teaching them… being respectful, being friendly. Those are our rules over there. And then, um, children, once you show it to them… be the model, they will copy, they will do it." Sunny later explained, "I have a child that's a transferee, she been to three school already because she's a runner. She don't listen." A child who is a "runner" *is* smart, as Omi expressed in her example.

Running away is a learning experience. It elicits a response, draws immediate attention, inverts power, and efficiently reveals the answer to *will you still be there for me if…?* in a climate where much else in a child's life may be unpredictable and unknown. Yet, the liability framework that governs ECE defines this type of behavior as high-risk and portrays a fundamental breakdown in the child-environment fit. The assertion, "It just wasn't safe anymore," creaks open a trapdoor, as was the case three times for the child that Sunny described in her example.

Guidance grounded in infant mental health and an evidence base on ECMHC generally encourages preschool professionals to work as collaborative teams of teachers, school leaders, therapeutic consultants, and families to develop strategies across school and home contexts to support a child's growth and development. In Omi's example, the submission, "Forget it," illustrates a critical rejection of collaboration. The consequences of this breakdown were not limited to the child alone as they passed through the trapdoor one, two, three times, or more, but also extended to what Omi characterized as her own "worst experience."

Participants' narratives routinely endorsed perspectives that children's "challenging" behaviors involved disruption, danger, disorder — altogether, characteristics marking a child as *deviant*. The theme of the deviant child characterizes perspectives that the roots of challenging behaviors are internal to a child. Yoli, a preschool teacher, explained that her expectations for children's behaviors stemmed from a place where, "I have a lot of respect for them, right, but, of course, they are children, they are going to have challenging behaviors no matter what, or they will say, they will speak their mind." Yoli expressed, "I always wanted to be a teacher," and described her commitment to continuous learning, "I like to prepare. I like to read a lot. I like to see how teacher, teachers can help the children learn not only by doin', but also conceptually." Yet she conveyed a perspective of helplessness alongside a child's perceived deficits:

> Sometimes it's chemical imbalance, which will be the, you know, they, they think there might be something that we teachers cannot help, um, if there are some issues, like, um, um, I don't know, well we'll say, like, focusing. Or they're, uh, sometimes because they are falling behind, or they don't understand, or there are too many noises and too much, sometimes too much noise, too much, uh, stimulation.

Yoli's explanation that "there might be something that we teachers cannot help" reveals an idea that the roots of children's perceived deviance are incorrigible and/or indicative of an untreated disorder, evidenced by "chemical imbalance," "falling behind" or trouble "focusing." However, it is worth noting that such indicators — notions of disruptive, dangerous, and disordered behaviors — are subjective, unique to individual perceptions and thresholds yet also informed by systemic dynamics of power, structural racism, and carceral logic.

Participants further expressed complicated outlooks on disenrollment, in particular, and about working with children who present "challenging" behaviors, more generally. Teresa, a preschool teacher, explained that she approaches her teaching on Zoom, in particular, with "a respect of what's the dynamic in the household of the families and me… I still value the learning, the academic, I still give whatever I have, whatever I learn from my own experiences and, and I instill value of doing research, doing my lesson plan, the same." Teresa further described the necessity of conferencing as a team within the preschool learning context, including the child's family, and between preschool contexts once the family "terminates" service.

> I cannot just do it on myself. The colleagues has to support me, the site administrator must be there, the mental health consultants has to be there, and the parents should agree, because if they don't agree, we are, we will be, uh, in trouble. (laughs). I will be in trouble. And, uh,

> that's good, that's one thing that is good that you have your logbook, yes, so those are supporting papers to make sure that, "Oh, yeah, he, he's, really did, oh he did this. Oh, he has this kind of behavior that he need, he really does need help." Something like that.
>
> And one thing I like is that, if we term-, if a child terminates the service, and he re-, they referred him to another, uh, agency or another school, there is a communication between agency and us. They ask background of the child. "How is he doing? What do, what is his strengths? What is his weakness? What do you do, [teacher name redacted], when he started doing this? Uh, how is the family? How is the mother?" Yeah, they, we communicate. There is a communication between and it is really important that we do that process.

Teresa's narrative illustrates an expectation of a coordinated response between preschool professionals within and between schools, as well as the critical importance of parents' agreement to disenrollment. Without parent involvement and agreement, according to Teresa, she is at risk of being "in trouble," illuminating her own vulnerability as a teacher within a carceral continuum.

As often as disenrollment was characterized as a consequence of families exercising agency (to varying degrees) to enroll their child in a different preschool program, interview narratives also revealed that disenrollment was a consequence of red-tape built into the district's subject position in the context of social welfare policy. Later in our interview, preschool teacher Sunny explained that parents' failure to complete paperwork operated as a linchpin for disenrollment.

> Sunny:
> They're, like, they get disenrolled because the parents doesn't bring the paperworks.
>
> Interviewer:
> Mm-hmm.
>
> Sunny:
> Let's say, they don't pay already, but they need to prove that they're going to school or they're looking for a job. So, things like that is not from our hands, it's from the office. They were not able to submit paperworks. And even that, we still extend, extend, extend. I keep telling them, "Bring it tomorrow because, you know, I don't want you not on the list for tomorrow. I want, I don't want you to go to the office and be absent from your work, so try to bring whatever necessity you need to bring, you know, paperworks." And sometimes it's, like, you know, those are the, you know, the policy they have to follow.

Sunny's narrative highlights the fraught dynamic between eligibility and accessibility that characterizes social policy at large in the U.S. welfare state. Sunny explains that parents can enroll their children in ECE at no cost, provided that they submit proof they are seeking work or education.

The actual cost of extra-exclusion through systematic disenrollment can be assumed to create an additional burden, a second layer of punishment, for families already experiencing precarious social and material conditions. It can also create perilous consequences for the child who arrives to school but is disenrolled. Jordan, a preschool teacher, described an extraordinary case of disenrollment due to missing "paperwork," which she witnessed at her school. Jordan is a teacher who expressed that "we've always had this sense of family in our class" and identified herself as "such a community person, everything that pops up that you can do for the community, I'm like, 'Okay, I'm going to do it.'" For confidentiality purposes, I will not detail the case that Jordan shared

about disenrollment. Yet, altogether, Jordan's narrative elucidated tensions of the liability framework deployed in ECE. Jordan explained that the site administrator ensured a rapid resolution to the child's enrollment status: "within two days, he was back in the program." Thus, Jordan's narrative highlighted how systematic disenrollment is a highly fixable problem.

Early Release: Time to Go

Early release was operationalized as a child's exit from a preschool program before the end of the school day. The data indicated that there were various reasons why children left preschool early, including, for example, illnesses, medical appointments, and family vacations. Early release can be a common and generally innocuous occurrence in a preschool ecology. However, my analyses revealed that the single most important underlying theme explaining a child's trapdoor exit via early departure was an under-resourced system.

Deborah, a school leader of three preschool sites,[15] summarized how her present work integrates her career experiences from multiple vantages in the preschool ecology. Early in her career, as a teacher, Deborah explained that she found herself "curious as to why sometimes administrators made the choices they made." This curiosity motivated her to advance her education toward licensure in an administrative position. Later, in a role that was "like an instructional coach position," Deborah described,

> I thought, oh, this is really where I, I wanna be. And I found myself frustrated because I could help teachers and I could support teachers, but I wasn't making the decisions. And so, I decided I wanted to make the decisions and create the culture that I wanted. It was a real, um, data-driven but punitive, um, environment at the school, which I just felt like I could do better. So, I decided to go ahead and put that admin license to use. And, um, I really chose early childhood because I wanted to start at the beginning and create good experiences for students in the very beginning before creating, so we created the least amount of problems moving forward.

Deborah's narrative illustrates system-level constraints that emerged in the data. Systemic issues appear to coalesce to push children toward early release. Unlike a K-12 setting, the preschools in the school district lacked central offices with full-time administrative staff. This means that, for example, there were no secretaries, assistant principals, principals, mental health consultants, case managers, or other such providers at preschool sites on a full-time and daily basis. In this context, teachers and staff occupy positions at the intersections of managing their classrooms and triaging the daily incidents perhaps better managed by a robust and distributed team of leaders and resource providers. According to Deborah, teachers are in a context where they are like "islands all on their own." She further explained:

> And so, what happens is, teachers are often time on their own, and it kind of depends on who the teacher is, on what happens when a student is having difficulty. So, um, the, what they are supposed to do is they're supposed to let the administrator know and the administrator supports, but a lot, oftentime-, oftentimes, teachers will just take it into their own hands and may call the family themselves, um, and kind of circumvent that, um, and then maybe tell the administrator later. Um, there are, there are teachers who send kids home. Um, and I have only had, um, two instances where we've had… three, I've had three

[15] It was customary in the school district for school leaders to work across multiple preschool sites; the impossibility of being three places at once indicates another layer of an under-resourced system.

> instances through the three years where we've had three students that teachers would send home because of difficulties, um, that they felt like they couldn't handle.

In Deborah's excerpt, she acknowledges, "there are teachers who send kids home," and expresses empathy and compassion for preschool teachers who negotiate "difficulties" with children "they felt like they couldn't handle." Interview data gesture toward an idea that an infusion of resources at the system level (e.g., funding, staffing, professional development, technology) would improve the structural conditions of preschool environments and thus bolster the system's capacity to better serve all children and families. Deborah provided an example that conveys how *disconnection* and a lack of resources within a preschool caused "damage" for everyone involved:

> This particular family, the, um, the mom was begging, begging for support, begging for resources. And sometimes the only resources are, "Hey, we can get you into something and it's in [location redacted]." That's not doable for families. And so, she didn't feel like she was getting support, and I don't blame her, I mean, she wasn't really, and she wanted it. And so, I, I feel like we need to prioritize, um, our funding. And if we could have provided more of an intervention-supportive environment and gotten counseling to the student, the family, everyone, I feel like so much of this trauma would have not happened because really there was so much trauma involved for the teacher, and the student, and the parent. It was really hard for everyone. Um, we could have allevia-, alleviated that and, um, put the student on, on a more positive, productive path as opposed to, um, causing so much more damage.

Later in our interview, Deborah outlined what I assess to be the stickiest and most subjective feature of extra-exclusionary discipline and passage through trapdoors: the intersection of policy and practice.

> So state legislature says you are not supposed to, um, suspend or send kids home in preschool. Um, and the policy of the department is, um, that you're not supposed to do that. The teachers in their contract, their teaching contract, it says that they are protected from harm, like harm from students, and we have teachers who would claim that they are in harm's way.
>
> There's arguments that could go both, both ways. They are four, they are four years old. However, some behaviors escalate to where teachers do not feel safe. And our population of teachers are older. We have an, um, an older population, and so, they don't move as quick, they don't… right? And they don't feel safe. Um, and again, that goes back to a lack of support. I mean, it's, it's really hard when you have a site administrator who's not consistently there, and you're really struggling, and you're not feeling safe.
>
> And you know you shouldn't send the kid home, but you're trying to keep the other kids safe because this child is dysregulated, and they're hitting, and they're throwing furniture, and they're throwing materials, and you're moving the kids outside, so they're not with this child who's dysregulated and having a really difficult time, and you don't know what to do. And your site administrators, you know, you know they're subbing, or you know that there's something, they can't get there. Um, oftentimes they're doing the best that they can.

Here, Deborah described the tensions between legal frameworks brought to bear amid challenging child behaviors in the preschool classroom. Interview data widely illustrate how teachers'

vulnerability to a fragmented, under-resourced system made coping with children's "difficulties" a tremendous challenge. Deborah emphasized, "they are four, they are four years old," seeming to relate the absurdity of ending a four-year-old's school day early, but also acknowledged that given teachers' circumstances, "oftentimes they're doing the best they can."

Cass, a staff member, emphasized that she perceived that the most important part of her work is "supporting families, and particularly families in need of child care and preschool for three- to five-year-olds… These are our youngest and most vulnerable members of the community, and it is our job to serve them." Similar to Deborah, Cass also highlighted the tensions and "very fine line" between discipline policy and safety in the context of early release:

> I was eavesdropping on a phone conversation, um. Gosh. Um, a member of the leadership team was letting a parent know, this was during the [event name redacted]. Or around about there. And staffing just not great, and a parent, and a parent was informed, I, what was it, um, "I don't have staffing, I'm short-staff today. I don't have staffing to ensure that child will be safe at school today." That was just kind of surprised to hear, yeah, that is like something that stuck in my mind. That was, and we do have a, I don't know if you would call it a directive, but we do have a policy that we try very hard not to send anybody home. Because where are you going to learn how to be away from home? You're gonna have to be away from home to learn how to be with home, right?
>
> Um I'm trying to think of an, any other instance where, okay, I do have one. Yeah. Okay. Um, this was last? So this would have been not last year, but the previous year. Um, yeah, there's, there was a child who was hitting, kicking, throwing things, um the teacher did really try to keep the child in the class, but he was sent home because there is a very fine line in preschool with licensing about violation of personal rights. And he was physically, um, you know, kind of showing his very strong emotions physically with other children and yeah. I believe, three times dad came and picked up.

Taken together, participants' narratives reveal how system-level tensions trickle downstream to impact teachers' capacities in the classroom, and ultimately, children's early release before the end of the school day. The state, essentially, is responsible for ensuring that children are neither suspended no expelled, yet it is also responsible for ensuring that teachers are safe. What is key to parse out, therefore, is that the under-resourced system itself creates conditions of cascading vulnerability, extending from the limitations of system resources to the physical space, to teachers' inherently limited resources and capacities in the classroom, to families' estrangement via complex eligibility requirements, to children's extra-exclusion via early release.

In-School: Making Space

In-school measures of extra-exclusionary discipline were operationalized as mechanisms to change a child's environment by moving them to a space within or outside of a classroom (e.g., to another teacher's classroom), while still retaining them in the preschool program. The data suggest that in-school measures of extra-exclusionary discipline are framed as preferred alternatives to exclusionary discipline, agile accommodations to support a child's "needs." Nevertheless, in-school measures appear fundamentally exclusionary under this guise of necessary accommodation and benevolent inclusion. Given extant policy and under-resourced conditions of the preschool ecology, in-school mechanisms elide regulatory repercussions and simply make it possible for preschool professionals to cope within the system. Claire, a preschool teacher, brings this dynamic to life. Claire explained her high expectations of herself: "you have to be your own best. You are not

competing with anybody, but be on your best." Claire's narrative illustrates in-school trapdoors and highlights perceptions of children's needs.

> Interviewer:
> Are there any children who were suspended, or expelled, or no longer enrolled at your school that you can remember?
>
> Claire:
> Well, um, to be honest with you, not really. We don't send them home. They don't get that kind of punishment. But I have to tell you this: there are kids who need smaller environments. There are kids who are coming from the families that they need support. Other than a teacher, they need a mental consultant help them, they need, um, to learn. So, if these kids are kind of dangerous to themselves and other children, kids who constantly, you know, throw stuff to other kids… And, you know, we cannot touch them. We cannot even hold their hands. So, you have a child who comes… All these years I didn't have… Right now I'm working over 25 years. Uh, I had maybe a few of these children that we couldn't control and they were coming from environment that, you know, they needed more support, more… It- It was more than something that we can do. So, if it is something that, um… then we provide smaller setting for them. But no, nothing like… You didn't say, "Hi, go home." (laughs) "Don't come back for 24 hours." No, we don't do that.

Claire's testimony draws a clear line from complying with policy, "We don't send them home," to deploying in-school extra-exclusion for "kids who need smaller environments" from families who "need support." To justify moving children to different classrooms, children must be interpreted as "kind of dangerous to themselves" and others, out of "control" and in need of "more support" than the current classroom context can provide. Changing a child's environment is constructed as a viable, and even benevolent, alternative to traditional exclusionary discipline, framed as a measure to meet a child *and* family's needs.

Isa, a preschool teacher in a special education classroom, perceived that her preschool site was a "very supportive" context where "teachers are always willing to share ideas, um, whether they're like lesson planning or behavioral management strategies." She continued by explaining,

> I feel like I always have everything that I need for getting through the day-to-day of it. Um, we also have a very supportive principal who, like, pops in classes in-person every day, just to check in and see how everybody's doing, um, and to see the kids and get to know the students. Um, and so, it's very, I feel very fortunate to be working at that site. Um, I know that not every site is like that… And so we, you need teachers to be supported in order to support the kids.

Isa highlighted the salience of in-school extra-exclusion. In contrast to Claire's narrative about changing a child's environment to accommodate a child and family's "needs," Isa's narrative demonstrates that in-school measures resulted in a "better fit" between a child and a teacher.

> I've had students switch classes before because there's just a better fit with a different teacher. Um, but they remain on site, but that's just because my school has most of the, the programs available at that site. Um, so, that's happened. Um, but like, I mean everybody has a different teaching style and so it just wasn't a great fit, and that's not something I try to take personally.

Narrative data further indicated that in-school extra-exclusion was not confined to permanent removal from one classroom and replacement in another classroom. In-school measures also included short-term strategies to deescalate tensions in a classroom. For example, Muriel, who worked in a special education classroom, described that briefly moving a crying child "out of the classroom" functioned to "relax them."

> Some behaviors are set off by other kids. So, we had one kid where he'd come in, she would come in crying and the boy would start crying. And so we just have to take her out of the classroom, or take him out of the classroom, relax them, then once one stopped… Once she stopped crying, you can introduce them again and it would be okay.

Muriel later explained her perspective, "I think it's like the more support you can give the kid the better." In this way, in-school trapdoors, on the surface, function as additional "support." Additionally, Muriel's example illustrates an assumption that children's dysregulated social-emotional states are best managed outside of the classroom. Muriel had found that outside of the classroom, children would "relax," then they could re-enter the classroom with less disturbance.

Social and emotional development is a touchstone domain of early childhood. Resources and curricula on the subject proliferate throughout early childhood and elementary settings. Teachers and children attend to a range of social and emotional vocabulary, concepts, and coping skills. We would expect that young children demonstrate an expansive, dynamic range of social and emotional states in a classroom. Yet amid the resource constraints of the everyday ECE context, social and emotional learning can be limited to an intellectual project. As Muriel's interview revealed, temporary mechanisms of in-school extra-exclusion make clear that a child's full range of social and emotional development and expression cannot be actualized and included in a preschool classroom. Disruptive expression, being "set off," results fundamentally in exclusion and seclusion. The classroom, therefore, is an environment conducive to a narrow margin of expression.

Referral: Needing Treatment

The subjective margins of acceptability and normativity for children's behaviors are brought to bear in extra-exclusionary measures characterized by *referral*. The theme of referral was operationalized as mechanisms involving a child's referral for services or assessment, indicative of medically pathologizing frameworks.

Quinn is a preschool teacher who expressed enthusiasm about professional development opportunities, with the rationale:

> That way I could hear other stories, other solutions, because, you'd be surprised, sometimes in those workshops, somebody have, was going through the same that you're going through, and they'll come up with a solution. And I'm there to absorb it like a sponge. Because every, teaching is something different. If you are teachable, you are learnable. No one person has all the answers.

Yet, Quinn characterized referral as a process beyond "other solutions" in the classroom:

> When it get beyond what we could do, we refer them to the next person who is able to help them. But we, yes we are in the picture, all together trying to be on the same page. Because most parents have said, "I don't know what to do. I can't handle him. I need some help." I

> said, "We've got to get you some help." Because the district has many options available. But the teacher and the principal have to be the one to do the research to find what it is.

Teachers occupy positions where they hold key roles in identifying possible areas for early intervention services to support children and families. However, the data bears out the complexity of such identification. Preschool teacher Dina, for example, articulated child behaviors that she perceived as key indicators for referral to a clinical professional:

> Interviewer:
> What is it about the child that, that makes you think they should be assessed [for a clinical disorder]?
>
> Dina:
> Okay, like they, are they hitting other children, they biting, they just come up like, just hit, hit, you know, like, just hit them, hit all the other children, you know, and then bite them or chase them, you know, like they can't sit still. In circle time they just do whatever, go under the table, you know, just run away, you know, run out the door.

Dina's interview highlights the subjective nature of normativity versus deviance in early childhood. Interview data cohere to suggest that children subject to referrals were deviant, dangerous or beyond control. One of the most prominent underlying dimensions of teachers' perceptions of children's deviance was a characterization of home-school relationships as fraught by friction and *distrust*. Participant narratives tended to suggest a distrusting, adversarial gap between home and school. This was evidenced by participants' sense of conflict and resistance between their own perspectives on a child's functioning at school, their imaginations of the child at home, and their distrust in parents' testimonies about the child. For instance, preschool teacher Era's narrative highlights the salience of friction between home and school. To set context, Era explained that her path to becoming a teacher seemed set early in life.

> From the time I was very young, I always wanted to either be a teacher or a nurse. For what reason, I don't know. And I have a sister who was a teacher. She's retired now. And when I left high school, there was an opening at the private school where she was working. And I got a position to work in preschool. And I so loved it and I stayed on. And that was it. Because it was like following my dream.

Era's interview narrative provides an illustrative example of the breakdown between home and school. She described that in her attempts to consult parents about children's behaviors, Era found that "most parents are in denial."

> And you'll be guessing, "Oh, is this why this child is doing this?" Ask the parent what happens, "Oh, he's fine. He doesn't do this at home." Really. (laughs). Most parents are in denial. "He doesn't do that at home." Of course he does. Because he's not going to just come here and start doing this. Um, so, the hardest thing is to have the cooperation of the parent to get ideas about what is happening with the child so we can work with them and help make it, um, a better transition from home to school.

The path toward referral highlights tensions between the contexts of home and school. For instance, preschool teacher Claire described, "The most common thing is they are the only child, parents

don't know any better, and they're spoiled. Unless there is, you know, some mental deficiency. Then it is easy to, uh, recognize it and, um, ask for total evaluation." Despite positivist urges to objectively assess, evaluate, and label deviance in opposition to parents' perspectives, participants' narratives also revealed that deviance is shrouded in euphemism. For instance, Era explained her perceptions of the varied underlying influences on children's "challenging" behaviors, some of which she characterized as "nonabilities."

> I think some of that, some of it could be the environment they are coming from. Some of it could be something neurological. You know, it's hard to pinpoint what causes a child to act a certain way. You will have to, like, like know the family history, know the child's history from birth to see the stages of development and what has transpired and what has not happened, and it will help us to understand what stage your child is at because you can have a child who is four and is now learning to speak. He's not going to have conversations with you, and he might get frustrated because he can't talk to you. And then you might have a child who has not really been tested because of age for certain, I don't want to say "disabilities" — um, nonabilities. That's the word, nonabilities.

Although referral emerged as a salient form of extra-exclusionary discipline for subjective interpretations of children's behaviors, many participants also expressed an understanding that children's behaviors carried non-pathological meaning. In fact, behaviors perceived as "unsafe" nevertheless had purpose. Cass, a staff member, highlighted how children's behaviors were interpreted as valid and saturated with meaning.

> Oh, they're trying to tell you something. So, okay, what. And then this goes back to the planning. Okay, what, what is the original cause? Trying to find out, what okay, why? The communication, what's going on? Okay. They can't say what's going on. They don't, they might not even know. They might not know that that funny feeling in their stomach means, "Somebody stepped on my toe, and I don't know what to say," or, "They took my toy and I don't know what to do. I do it at home. Let me just, just grab a bag. Let me just hit someone and they will let go the toy and I can have it." So, trying to find out what's going on, what's really going on. What are they trying to tell me? What are they trying to tell their friends? And then kind of going from there, and then modeling, explaining, showing, sharing, [inaudible] "At school, we share," that kind of stuff. Yeah but they're trying to tell you something. They don't, sometimes they just don't have the language yet.

Cass's narrative demonstrates an understanding that behaviors generally perceived as unsafe nonetheless served important functions. Participants' narratives suggested that even when disruptive, children used their behaviors to communicate and/or process their emotions, experiences, needs, or desires. Though deviant from perceived norms, "no child is an inherent troublemaker," as Byron declared in this chapter's introduction.

Participants' reflections on the duality of children's behaviors as meaningful — yet also pathological — indicate a pernicious benevolence of extra-exclusionary discipline via referral. Muriel's narrative about one key case illustrates this benevolence. Muriel described that a referral process ultimately moved a child who "interfered with teaching" to a different setting.

> So, we've had a young lady go and she just, we had a class of 12 kids and it was two teachers, me and another teacher. And, every transition she would break down crying, trying to hit one of us, trying to bite one of us. And so, it inter-, it interfered with teaching, so one of the

> other teachers had to take all the 10 other kids and sit with her, well until she calmed down… And this happened every day. Every day. So we had to figure out what was, what was wrong, and so then we started talking to the parents, and the parents and the doctors, and they tried getting her on medicine. Then the medicine was just, made her groggy some days and too hard some days. Then we just came to the point, we're like, all right, let's, if we change her environment and gave her to a better class where it's more people one-on-one with her, more people giving the love and support. And that's what she did for probably, I think, two years until that program stopped. And then I saw her during a summer school one year and her, her attitude and stuff was way better, way calmer. She actually knew who she was finally.

The theme of referral demonstrates how extra-exclusionary measures were constructed as necessary, even benevolent, exits for children deemed dangerous or beyond control. Muriel's narrative, in particular, illustrates how the referral process moved the child from her class to a "better class" with more "love and support," where ultimately the child's "attitude and stuff was way better, way calmer." Extra-exclusionary discipline via referral appears to proliferate as a logic of care in a medically pathologizing, under-resourced system.

Virtual: Discipline from a Distance

The COVID-19 pandemic radically transformed the context and delivery of preschool. In this study, the school district rapidly transitioned from in-person to virtual contexts in the spring of 2020. Preschool continued to be delivered through a remote, distance learning context during the interview period in the winter of 2021. The virtual preschool classroom was a novel context to conceptualize early childhood exclusion and discipline. The scope and function of exclusionary measures in virtual preschool contexts were untheorized prior to the pandemic. This dissertation operationalized *virtual* measures of extra-exclusionary discipline as mechanisms that excluded a child and/or family from the virtual classroom.

The most salient mechanism that emerged from my analysis of interview narratives was Zoom's "mute" feature. Participants tended to describe that "mute" was deployed to buffer disruptions from children or from others in children's background environments. At first, the "mute" feature seems innocuous. Muting children's audio/video was portrayed as a convenient feature that simply aided classroom management and daily routine. Preschool teacher Sunny explained that her expectations for her virtual "classroom rules" specified, "It's as simple as that, like, 'You have to raise your hands, unmute yourself, mute yourself.' That's what we're doing. 'You have to give each other a turn and be friendly.'" Mute: a "simple" rule for the virtual preschool classroom. Yoli, a preschool teacher, put a fine point, however, on the incongruity between "mute" in the virtual classroom and the reality of an in-person classroom:

> The thing is about Zoom, and that's, I don't know if it's a blessing or it's a, not a blessing, but you can, you can mute everybody. And you just ask them to mute themselves and suddenly is, everything is quiet. That we're not gonna have when we go back to class, mute and unmute. (laughs)

As a fixture of the virtual context, "mute" does not translate as a strategy in an in-person classroom.

Kai, a school leader, described a professional trajectory as a school leader where engaging in classrooms to provide "support" was a regular practice "on the daily." Kai reflected on being,

> just really actively involved with creating climate, a positive climate and culture with my other colleagues and administration and the teacher leaders that were participating in the culture and climate team. Um, you know, outside of the, the standard observation cycles that you go through with teachers, you know, uh, I really spent a lot of time just supporting kids who just could not find their way on their own and teachers who just weren't, uh, uh, c-, had the capacity to, to, to, to address the social-emotional concerns that raise up in a class, um, on the daily um, you know?

Bearing this experience in mind from the in-person context, Kai described that in the context of the virtual classroom, it may be difficult for teachers to fully attend to a child's behaviors: "It's hard to tell with the Zoom experience because I think right now, because you're not in, in the same room with somebody, that, whoever is in the same room with somebody has to address that in that, that piece." The "mute" practice extends a child's distance even further from preschool.

I had anticipated that, similar to the "mute" feature, "breakout rooms" might be deployed as a strategy to manage disruptions in the virtual classroom. However, the interview narratives did not indicate evidence of "breakout rooms" as a salient micro theme of virtual extra-exclusionary discipline. Rather, participants' narratives tended to demonstrate that Zoom's "breakout room" feature facilitated their small-group activities. Small-group activities, which involved a group of children matched with a teacher or paraprofessional, were a typical component of in-person classroom routines. In the virtual classroom, "breakout rooms" appeared to add to a routine, providing children predictability during an extremely unpredictable time.

Summary

In sum, narrative data cohere to indicate a typology of five distinct themes of extra-exclusionary trapdoors in preschool contexts: *disenrollment*, *early release*, *in-school*, *referral*, and *virtual* measures. Within and across each type of trapdoor, underlying dimensions at the child, family, and school levels reveal the complete picture of the implications of a fragmented ECE system on fundamental issues of access and inclusion in preschool. Participants' narratives demonstrated that trapdoors mitigate "disruptive," "unsafe," and altogether *deviant* children; are sharpened by friction and *distrust* in the family-school relationship; and are cemented by an under-resourced and *disconnected* system. Taken together, participants' narratives illustrate how trapdoors and associated underlying dimensions shine a light on precarity spanning every level of an insecure preschool ecological system. Deborah's words are resounding: "oftentimes they're doing the best that they can." Trapdoors are integral in a context of structural racism and carcerality where vulnerability is universal.

Chapter 8: The Blueprints of Trapdoors

Triangulation and Integration

This mixed methods dissertation triangulates and integrates the quantitative and qualitative results to interpret evidence in relation to RQ3, *To what extent do themes and associated underlying dimensions of extra-exclusionary discipline that result from interview analysis cohere with extra-exclusionary discipline and underlying factors that result from exploratory factor analysis?* In this chapter, I summarize results from the quantitative and qualitative strands of this dissertation, as well as describe consistencies, inconsistencies, and complexities across results. This synthesis builds a sophisticated blueprint of extra-exclusionary trapdoors.

Summary of Quantitative Results

Using data from a survey completed by preschool professionals (n = 60), the quantitative strand of this dissertation employed EFA to explore the underlying factor structure that explains variance in participants' perspectives on 15 measured variables theorized to be indicative of extra-exclusionary discipline. I fit two plausible models, a two-factor model and a three-factor model, using principal axis factor extraction with 100 iterations and oblique (oblimin) rotation. Initial results indicated that two variables, *behave better in future* and *talking parent improve behavior*, did not contribute to the simple structure and did not appear to be explained by the same underlying factors as the remaining 13 measured variables. The two- and three-factor models were then reevaluated using the subset of 13 measured variables. The two-factor model was the most parsimonious and best fit solution.

Five measured variables loaded saliently on the first factor, cohering to suggest Terrell's incorrigibility (e.g., *encourage enroll different program*, *likely no respect teacher*, *suggest attend other teacher class*, *likely troublemaker*, and *recommend repeat a year*). Four measured variables loaded saliently on the second factor, cohering to suggest Terrell is untreated for a suspected disorder (e.g., *likely disability*, *likely developmental delay*, *distraction learning environment*, and *likely home environment*). After interpreting the pattern and structure coefficients for the relationships between the measured variables and underlying factors, as well as considering the theoretical perspectives deployed in this study, the results suggest the first factor is indicative of *correction* and the second factor is indicative of *treatment*.

Summary of Qualitative Results

The qualitative strand of this dissertation used an integrated process to conduct an issue-focused analysis of themes indicating a typology of extra-exclusionary trapdoors and associated underlying dimensions. Analyses of narrative data from nonschedule standardized interviews with preschool professionals (n = 24) evidenced five themes of trapdoor exits in preschool contexts: *disenrollment*, *early release*, *in-school*, *referral*, and *virtual* measures. Additionally, underlying dimensions of extra-exclusionary discipline located at child, family, and school levels completed a picture of a fragmented ECE ecological system and fundamental issues of access and inclusion. Specifically, participants' narratives afford a new understanding that measures of extra-exclusion are thought to mitigate "disruptive," "unsafe," and altogether *deviant* children; are sharpened by friction and *distrust* in the family-school relationship; and are cemented by an under-resourced and *disconnected* system. Taken together, participants' narratives illustrate how themes of extra-exclusion and associated underlying factors shine a light on the precarious hinges of an insecure preschool ecological system in a wider context of social inequities.

The "Beautiful/Ugly" Complexity: Convergence and Divergence Across Results

Merging the quantitative and qualitative results as an integrated framework of "inside-out" perspectives yields a rich description of themes of trapdoors and key underlying dimensions. In this section, I discuss the common concepts and areas of divergence across both sets of findings. A joint display of quantitative and qualitative results is shown in Figure 2 (this section).

The quantitative results suggest that the measured variables clustered according to *correction* or *treatment* toward Terrell, wherein extra-exclusion was a fundamental outcome for the Black boy across both factors. The cornerstone measured variables of the *treatment* factor were attributions that Terrell's behavior episodes were likely due to *disability* and *developmental delay*, characteristics that are emblematic of the themes of *referral* and the *deviant* child. These concepts were widely invoked in interview narratives. For example, preschool teacher Era's euphemistic description elucidates the possible untreated "nonabilities" that may characterize a child's presentation and functioning in the classroom:

> I think some of that, some of it could be the environment they are coming from. Some of it could be something neurological. You know, it's hard to pinpoint what causes a child to act a certain way. You will have to, like, like know the family history, know the child's history from birth to see the stages of development and what has transpired and what has not happened, and it will help us to understand what stage your child is at because you can have a child who is four and is now learning to speak. He's not going to have conversations with you, and he might get frustrated because he can't talk to you. And then you might have a child who has not really been tested because of age for certain, I don't want to say "disabilities" — um, nonabilities. That's the word, nonabilities.

In addition to Era's excerpt highlighting the untreated nature of the child's "nonabilities," she also specified the importance of the child's history and environment in relation to their behaviors. Two measured variables loaded saliently onto the treatment factor, *distraction learning environment* and *likely home environment*, indicating coherence across the qualitative and quantitative data about the perceived significance of a child's environment on their presentation and functioning in preschool.

Meanwhile, the variables that loaded saliently on the *correction* factor demonstrated numerous consistencies with narrative data from interviews. Preschool teacher Omi's narrative provides an illustrative example:

> Over the last five years, uh, I had to put out one child. He was very disruptive. He was very violent. And I worked with him as long as I could, but he was to the extreme where he, and then he became a runner, you know, and it just wasn't safe anymore… And I worked as long, I worked with him for months. Smart. Just, you know, he was throwing things, breaking things. And it was like, every day. So, it was like, and I, I went to half-a-day, and then I ended up having a conversation with the mother. And, of course, I called the site administrator, I said, "We're gonna have a meeting." And she just said, "Forget it," and she left. So, that was, that would probably be my worst experience for that.

This excerpt from Omi's interview highlights that the child was ultimately *disenrolled* from her class and *enrolled in a different program*. Omi's dialogic submission, "Forget it," signals the knock on the trapdoor. In addition, the descriptions of the child as "very disruptive" and "very violent" map onto the child as a *troublemaker* and passionately convey his *deviance*. Less explicit, but apparent, are elements of *no respect teacher* and *parenting*, which also map onto the *correction* results.

Interestingly, *parenting* was not saliently loaded on the *correction* factor. Interview data, however, widely suggested that parenting was a crucial dimension of pathways out the trapdoor.

Endorsements of friction between participants' perspectives and parents' perspectives coalesced around a theme of *distrust*. For instance, many participants interpreted that parenting practices such as "spoiling" a child spawned behavior challenges that manifested in the classroom. As well, participants' narratives tended to suggest that parents were "in denial" about their child's incorrigible or untreated nature. Preschool teacher Era's account accentuates the dynamism between *distrust* and underlying factors:

> And you'll be guessing, "Oh, is this why this child is doing this?" Ask the parent what happens, "Oh, he's fine. He doesn't do this at home." Really. (laughs). Most parents are in denial. "He doesn't do that at home." Of course he does. Because he's not going to just come here and start doing this. Um, so, the hardest thing is to have the cooperation of the parent to get ideas about what is happening with the child so we can work with them and help make it, um, a better transition from home to school.

Suggesting that a child *attend another teacher's class* also loaded saliently on the *correction* factor. This measured variable is a form of *in-school* extra-exclusionary discipline. The qualitative data indicated that in-school measures of extra-exclusionary discipline were explicitly interpreted as alternatives to suspension and expulsion. Claire's example, for instance, conveyed a balance between complying with policy, "We don't send them home," and deploying in-school trapdoors for "kids who need smaller environments" and families who "need support."

> Interviewer:
> Are there any children who were suspended, or expelled, or no longer enrolled at your school that you can remember?
>
> Claire:
> Well, um, to be honest with you, not really. We don't send them home. They don't get that kind of punishment. But I have to tell you this: there are kids who need smaller environments. There are kids who are coming from the families that they need support. Other than a teacher, they need a mental consultant help them, they need, um, to learn.

Claire's narrative also reveals how in-school measures are not the same "kind of punishment" as suspension, expulsion, and disenrollment. Yet, Claire's implicit provocation is that alternative measures operate as punishment nonetheless. Further, rather than suggest exclusively that the child "needs" correction or treatment, the narrative data tends to suggest that in-school dimensions of extra-exclusionary discipline do not fall neatly into either category but span both.

My comparison of quantitative and qualitative results also reveals that the *in-school* extra-exclusionary discipline measure, *recommend repeat a year*, which loaded saliently on the *correction* factor, did not surface as a key dimension in the narrative data. It is possible that participants were unlikely to discuss grade retention as a mechanism of extra-exclusionary discipline because preschool is not constructed as a grade-level program. Rather, preschool is age-based. It may be especially useful to conceptualize grade retention as a trapdoor in K-12 contexts.

Further, the measured variable *difficulty class on track* did not load saliently on the *treatment* factor, yet surfaced consistently in interview narratives. For instance, Muriel, who worked in a special education classroom, explained how one child's pattern of disruptive behaviors "interfered with teaching" on a daily basis until the child was referred to medical treatment and, eventually, a "better class":

> And, every transition she would break down crying, trying to hit one of us, trying to bite one of us. And so, it inter-, it interfered with teaching, so one of the other teachers had to take all the 10 other kids and sit with her, well until she calmed down… And this happened every day. Every day.

Other measured variables with non-salient factor loadings that clustered into the *correction* or *treatment* factors in the quantitative results appeared dynamic and multidimensional in the qualitative results. For instance, *ending before circle time*, an indicator of *early release*, was not salient on the *treatment* factor. In contrast, the theme of *early release* was prevalent in interview narratives. This theme was typically invoked in relation to tensions concerning safety and limited resources. Staff member Cass's clandestine observation is a representative example:

> I was eavesdropping on a phone conversation, um. Gosh. Um, a member of the leadership team was letting a parent know, this was during the [event name redacted]. Or around about there. And staffing just not great, and a parent, and a parent was informed, I, what was it, um, "I don't have staffing, I'm short-staff today. I don't have staffing to ensure that child will be safe at school today." …That was, and we do have a, I don't know if you would call it a directive, but we do have a policy that we try very hard not to send anybody home.

Early release, in particular, highlighted the tensions in legal frameworks governing preschool contexts. Cass's parroting, "I don't have staffing to ensure that child will be safe at school today," is indicative of the child as *deviant* in a *disconnected* system beset by inadequate resources. Put simply, in this context, the child's very presence at school was too risky. Despite the "directive" not to "send anybody home," as Cass explained, safety is a legal linchpin in the trapdoor framework. Perceptions and characterizations of preschool children as threats, dangerous to themselves and/or others, and "to the extreme," as Omi's narrative portrayed, constituted grounds for extra-exclusionary discipline.

Additionally, Cass's narrative above illustrates a sinister scaffold of universal vulnerability in the context of trapdoor architectures, generally, and *early release*, specifically. The ECE system itself is sketched as *disconnected* and under-resourced. Similar to Cass, many participants' interview narratives consistently exposed the frailties of the preschool context and system-level sources of vulnerability: insufficient staffing in classrooms, a complete absence of full-time administrative and professional staff on campus, precarious paperwork, a feeble budget, and literally crumbling classroom resources, for example. These critical dimensions were only revealed through interview data. The survey data did not measure specific facets of the system context. Thus, interview narratives illuminate how underlying factors that emerged from EFA are situated in the system context. School leader Deborah's synthesis, "oftentimes they're doing the best they can," sheds light on preschool professionals beset by vulnerable contexts of tension and scarcity. Had this dissertation been purely quantitative, this critical knowledge about the significance of the system context would be relegated to speculation instead of empirically demonstrated. This knowledge is especially important in the face of deficit-focused theories and interventions that target school teachers and staff, yet fail to address deleterious structural dimensions that these professionals triage in their everyday work.

Next, the survey data did not include measures of *virtual* trapdoors, yet the interview narratives revealed that the virtual preschool classroom was a novel context to conceptualize extra-exclusionary discipline. Specifically, as a fixture of the virtual context, "mute" does not translate to the day-to-day demands of in-person contexts. Preschool teacher Yoli's perspective represented the incongruity between "mute" in the virtual classroom and the reality of an in-person classroom:

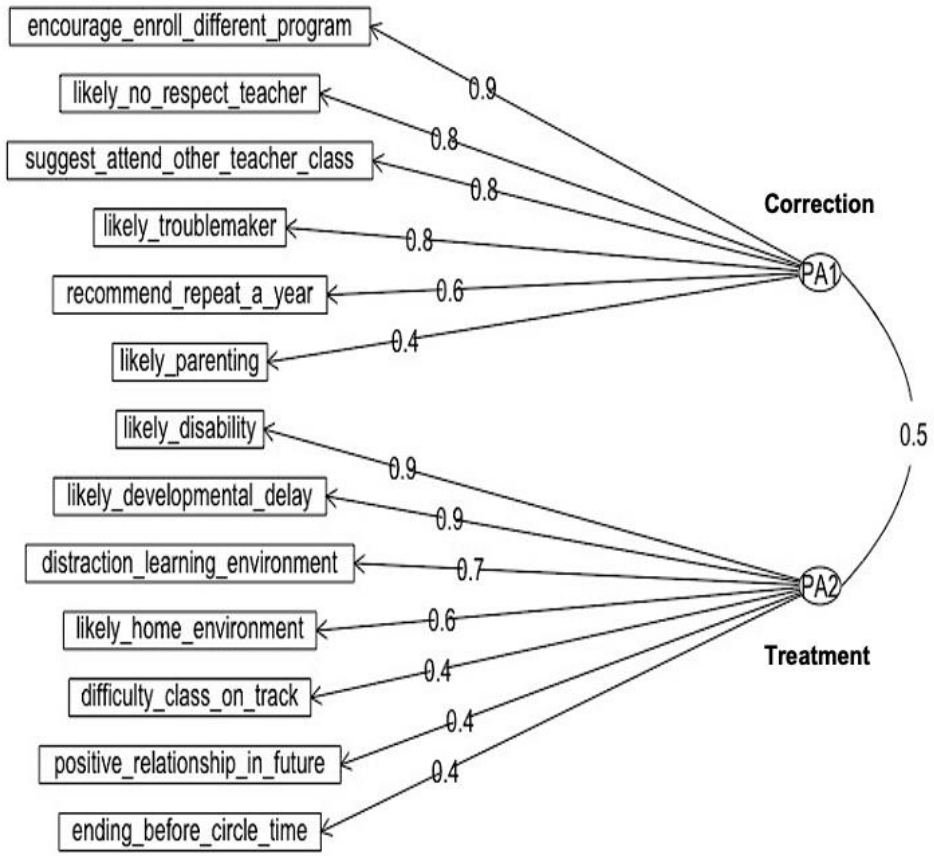
> The thing is about Zoom, and that's, I don't know if it's a blessing or it's a, not a blessing, but you can, you can mute everybody. And you just ask them to mute themselves and suddenly is, everything is quiet. That we're not gonna have when we go back to class, mute and unmute. (laughs)

Another crucial area of divergence between the survey results and the interview results involves the demographic characteristics of children who pass through trapdoors. The survey variables are measures of participants' endorsements in response to Terrell. The survey was designed to stimulate perspectives about a racialized and gendered child. The EFA results, therefore, provide critical insight about the underlying factors, *correction* and *treatment*, of a Black boy's trapdoor exclusion. Meanwhile, in their interview narratives, participants elided any discussion of a child's racialized identity. At most, a child's gender was indicated in narratives. As well, participants occasionally described demographic characteristics of families in the school and/or neighborhood communities. I infer that participants were exceedingly careful not to reveal identifying information about children. Thus, interview narratives illustrate the blueprints of trapdoors but do not indicate the demographic characteristics of preschool children who make passage.

In sum, the qualitative results indicate that the typology of five trapdoors, *disenrollment*, *early release*, *in-school*, *referral*, and *virtual* measures, tend to cohere with underlying *correction* and/or *treatment* factors. Further, the qualitative results indicate evidence of salient underlying dimensions of trapdoors, namely conceptualizations of a *deviant* child, *distrust* in the family-school relationship, and a *disconnected* system context, which expand on underlying dimensions revealed in the quantitative results. Together, the merged set of quantitative and qualitative results illustrates the dynamism and expansiveness of concepts. In the next chapter, I expand on this discussion by delineating the implications of this dissertation with an eye toward directions for research, policy, and practice.

Figure 2

Joint Display of Quantitative and Qualitative Results – Extra-Exclusionary Discipline and Underlying Factors



Theme	Excerpt
Disenrollment	Well we did have one student, but it was because paper, you know how paperwork doesn't get filled out and then you're dropped.
In-School	Some behaviors are set off by other kids. So, we had one kid where he'd come in, she would come in crying and the boy would start crying. And so we just have to take her out of the classroom, or take him out of the classroom, relax them…
Deviant Child	Sometimes it's chemical imbalance, which will be the, you know, they, they think there might be something that we teachers cannot help, um, if there are some issues, like, um, um, I don't know, well we'll say, like, focusing. Or they're, uh, sometimes because they are falling behind, or they don't understand, or there are too many noises and too much, sometimes too much noise, too much, uh, stimulation.
Distrust of Families	The most common thing is they are the only child, parents don't know any better, and they're spoiled.
Disconnected System	And if we could have provided more of an intervention-supportive environment and gotten counseling to the student, the family, everyone, I feel like so much of this trauma would have not happened because really there was so much trauma involved for the teacher, and the student, and the parent. It was really hard for everyone.
Referral	Then we just came to the point, we're like, all right, let's, if we change her environment and gave her to a better class where it's more people one-on-one with her, more people giving the love and support.
Early Release	And you know you shouldn't send the kid home, but you're trying to keep the other kids safe because this child is dysregulated, and they're hitting, and they're throwing furniture, and they're throwing materials, and you're moving the kids outside, so they're not with this child who's dysregulated and having a really difficult time, and you don't know what to do.

Note. In the path diagram (above left), " PA1" indicates the first underlying factor, *correction*, and " PA2" indicates the second underlying factor, *treatment*. In the path diagram and in table of narrative excerpts (above right), themes of underlying factors are in bold. The theme of *virtual* trapdoors in the distance learning context is omitted from this display, though discussion of this theme is provided in Chapters 7 and 8, for example.

Chapter 9: Discussion

This chapter concludes this dissertation. Herein, I summarize this project and discuss study strengths and limitations. Additionally, I discuss implications for (a) research on exclusionary discipline in preschool settings, and (b) policy and practice domains. Finally, I conclude this chapter, and this dissertation, with reflections about this project and expansive, joyful, audacious, imaginative, and abundant futures for all children.

Dissertation Summary

Exclusionary discipline is one critical source of educational inequity in the United States. The robust evidence base on school effects in K-12 settings warrants a similarly comprehensive investigation of structural factors of the ECE ecological system that make way for exclusionary discipline. Moreover, emergent policy and practice interventions target children, families, and teachers, for example, but fail to account for structural dimensions of exclusionary pathways from early educational opportunities. This mixed methods convergent dissertation, therefore, aimed to (a) elucidate a typology of extra-exclusionary trapdoors that estrange children and their families from preschool, and (b) explore ecological and structural factors that underly these outcomes.

Guided by a desire-based epistemological stance grounded in womanist anti-carceral praxis and critical theoretical perspectives, I conceptualized extra-exclusionary discipline as the array of methods of exclusion that operate in covert, unconventional, and undocumented ways to achieve the same exclusionary ends as exclusionary discipline measures (e.g., suspension, expulsion). As Byron's narrative highlighted in the introduction of Chapter 7, "You say 'suspended.' But see, we don't usually use the term," traditional frameworks of defining and regulating suspension and expulsion in ECE contexts do not encompass trapdoor exits. Despite the conceptual distinction that Byron helps make, trapdoors and suspension have the same ends for children and families, thus, "it could be called suspension, you know."

The quantitative and qualitative strands of this dissertation tell complementary stories. The quantitative results indicate that underlying dimensions of extra-exclusion involve *correction* and *treatment* responses toward Terrell, a Black boy. The qualitative results, meanwhile, expand understanding of a typology of trapdoors (*disenrollment*, *early release*, *in-school, referral*, and *virtual* measures) and underlying factors (*deviance*, *distrust*, and *disconnection*), illustrating characteristic dynamism and complexity of trapdoors. When knit together, the merged results expand knowledge about the conceptualization and measurement of extra-exclusionary discipline, drafting a sophisticated blueprint of structural and ecological factors concealing trapdoors in preschools.

Discussion of Primary Findings

Key findings from this dissertation illuminate how dichotomies of deviance and normativity, risk and safety, and innocence and liability are socially constructed, racialized, grounded in carceral logics of reform and rehabilitation, and deployed in the context of an under-resourced ECE system. For example, preschool teacher Omi's representative description of a child who is "very violent," "to the extreme," and "a runner," as well as Claire's account of children who are "kind of dangerous to themselves and other children," illustrate a prevailing risk-safety dichotomy routinely deployed to justify a child's trapdoor exit from preschool. In a liability framework, teachers' fear of accountability is a hallmark indicator of a child's risk for expulsion from preschool, according to Gilliam and Reyes (2018). This dissertation demonstrates that mechanisms of extra-exclusionary discipline emanate from similar logics of fear and risk.

One of the pernicious rationales of extra-exclusionary discipline bolstered by carceral logics is that dismissing a child is a viable, even benevolent, alternative to traditional exclusionary

discipline. In fact, the evidence indicates that extra-exclusionary discipline is framed as a measure to meet a child *and* family's "needs." In a costume of care, extra-exclusionary discipline belies explicit categorization as "punishment." Preschool teacher Claire's narrative, for example, reveals how extra-exclusionary measures are not the same "kind of punishment" as suspension, expulsion, and disenrollment. Yet, therein, Claire implicitly states that alternative measures operate as punishment nonetheless.

Furthermore, child development is a dynamic process that occurs in the contexts of relationships and environments. The complexity of development complicates diagnostic boundary-drawing practices meant to marginalize territories of deviance. Therefore, the theoretical and practical problems that emerge in this dissertation complicate essentialist conceptions of children's behaviors as indicative of health or pathology, normativity or disorder, compliance or disruption. Critical theories disturb positivist systems that simplify healthy behavior (and its counterpart, pathological behavior) to apolitical and ahistorical terms. Specifically, CRT (e.g., Crenshaw et al., 1995; Delgado & Stefancic, 2017) and Disability Critical Race Theory (Annamma et al., 2013) provide frameworks to interrogate "healthy" or "typical" behavior as socially constructed and explicitly connected to politics of representation, time, space, place, racialization, and culture. Health and its moral equivalence to goodness operate as proxies for Whiteness, substantiated by and reinforcing biological theories of race meant to bolster White supremacy (e.g., Gould, 1996; Graves, 2003). From a Foucauldian perspective on the carceral continuum and a CRT perspective on structural racism, the deflection of attention away from systemic injustice and toward children's, families', and teachers' perceived deficits maintains punition and White supremacy in educational contexts. All facets of society are ensnared and enmeshed in structural inequity. Thus, solution-building efforts for equity, accessibility, and anti-assimilationist inclusion in ECE contexts must account for structural dimensions and novel theorizations of exclusion, as demonstrated in this dissertation.

A critical finding from this dissertation is that an under-resourced, *disconnected* ECE system wrapped up in the carceral continuum generates a cascade of vulnerability that ripples throughout the preschool ecology. This finding is consistent with Pianta et al. (2009), indicating that ECE is a characteristically fragmentated "nonsystem." This finding also expands knowledge about the intersections of exclusionary discipline and multilevel precarity. The results indicate that vulnerability is replicated at every level of the ECE context. For instance, interview narratives illustrated how a lack of a central office with full-time administrative and support staff (e.g., secretaries, principals, health and social services) forced classroom teachers and staff to triage "daily" incidents on top of their contract positions. Deborah's interview in particular represented empathy toward teachers and staff in the midst of system constraints, where "oftentimes they're doing the best they can." When risk and scarcity frameworks are overlayed, trapdoors from ECE appear to be symptoms of state-created estrangement and vulnerability. The under-resourced system extends to teachers' inherently limited resources, capacities, and concerns in the classroom, to families' estrangement via complex eligibility requirements, to children's passage through trapdoor exits.

Additionally, historical, cultural, and ideological forces shape social imaginations and material conditions of childhood that constrain and control children's activities and possibilities. In this dissertation, one of the important areas of divergence between survey results and interview results involves the demographic characteristics of children who pass through trapdoors. Specifically, the survey was designed to stimulate perspectives about a racialized and gendered child, a Black boy named Terrell. Thus, the quantitative results indicate that *correction* and *treatment* factors characterize an imagination of a Black boy's trapdoor exits. Yet interview participants did not engage any discussion of a child's racialized identity in connection to exclusionary outcomes. Thus, the qualitative results illustrate the blueprints of trapdoors but do not indicate the demographic

characteristics of preschool children who make passage. Based on extant empirical literature delineating biases about Black children's subjective behaviors (e.g., Okonofua & Eberhardt, 2015; Wegmann & Smith, 2019) and the school as a site of "Black suffering" (Dumas, 2014), we can theorize who is most likely to scale a "formidable wall of whiteness" (Leonardo, 2015, p. 91) or fall through trapdoors.

The underlying dimension of the *deviant* child is particularly salient to a literature examining the racialized dimensions of childhood innocence and normativity. For instance, Bernstein (2011) documents how the performance of American childhood innocence is a distinctly racialized project from chattel slavery through the Civil Rights era. Bernstein (2011) takes up the notion of "imagined children" as innocent, such that "imagined children deserve protection" (p. 1). Over the course of Bernstein's analysis, we see that Black children are categorically not afforded the imagination of childhood, innocence, or attendant protections. Drawing out this concept of imagined childhood, Dumas and Nelson (2016) assert that the social imagination of Black childhoods renders them unimagined and unimaginable. This (un)imagination means that Black childhood and adolescence is erased as Black children are adultified, criminalized (Goff et al., 2014), and dehumanized (Goff et al., 2008). Dumas and Nelson (2016) contend that dehumanization — not prejudice — provides a logic to explain why Black children are framed as undeserving of emotional and moral recognition in schools.

Finally, an intriguing aspect of the quantitative results was that two measured variables, *behave better in future* and *talking parent improve behavior*, did not fit within the factor structure. As well, the measured variable, *positive relationship in future*, was explained by the *treatment* factor, but it did not load saliently on this factor. The remaining 12 measured variables and the prevailing *correction* and *treatment* factors seem to conflict with these three variables. Might these three variables indicate routes for humanizing children and dismantling trapdoors? Indeed, the narrative data shed light on preschool professionals' push and pull between ecological vulnerability in a *disconnected* system and their enduring work with children and families.

Study Limitations and Strengths

There are three notable limitations to this dissertation. First, the sample sizes across the survey experiment and interviews consisted of 31.6% and 12.6% of the population of preschool professionals in the school district, respectively. Data collection occurred amid surges in the COVID-19 pandemic and dramatic shifts in preschool professionals' work with children and families. Despite the modest sample sizes, the participants in each strand of the study were demographically and professionally diverse, representing a range of positions and backgrounds. Because generalizability may be limited, replication studies are sorely needed. Second, data collection used self-report measures. It is possible that some participants responded in what they perceived to be socially desirable ways to survey items about disciplining Terrell or to interview questions about their experiences navigating children's challenging behaviors. The chosen analytic techniques for this study take skew, kurtosis, and divergent perspectives into account to mitigate outsized effects of response bias. Third, this dissertation did not examine the influence of racialized or gendered stereotypes — or intersections of race and gender — on extra-exclusionary discipline. In the survey, the classroom context was manipulated in order to investigate novel dimensions of exclusionary discipline relevant to the COVID-19 pandemic. A race-effect has been established in similar versions of the experiment using other samples of educators (e.g., Jarvis & Okonofua, 2020; Okonofua & Eberhardt, 2015). Additionally, the interview protocols did not solicit information about the demographic characteristics of children who were perceived as challenging. This dissertation cannot make any inferences about race or gender effects, or explain disparities or disproportionalities. It is worth noting that this dissertation is chiefly concerned with novel

structural dimensions of exclusionary discipline, rather than identifying prejudicial patterns of discipline, which considerable previous research has established.

This dissertation makes several novel contributions to the knowledge base. Most importantly, it is the first known conceptual and empirical investigation of a typology of covert, undocumented, and unregulated forms of extra-exclusionary discipline and associated underlying dimensions, which constitute trapdoor exits from preschool. The primary data collected at multiple timepoints as part of an RPP implemented during the COVID-19 pandemic is a particular strength of this research. Little is known about the dimensionality of exclusionary discipline amid in-person and distance learning contexts; this dissertation addresses both. Additionally, the mixed methods convergent design and desire-based, critical "inside-out" methodological approach yielded complementary and expansive results illustrating sophisticated blueprints of trapdoor exits. Moreover, this dissertation is a timely address of a social problem spanning social and educational equity and justice, particularly given persistent and far-reaching racialized dimensions of educational inequity, as well as the uptake of state and federal initiatives to scale universal preschool models.

Implications for Research on Exclusionary Discipline in Preschool Settings

The evidence from this dissertation motivates several promising avenues for future research. To date, research on exclusionary discipline as an expansive, multidimensional construct is nascent. Only one other study is known to broach this subject: Clayback and Hemmeter (2021) conceptualized "'soft' expulsion" as a "less extreme form of expulsion," which they operationalized as the number of times a teacher requested permanently moving a child to another classroom due to challenging behavior (p. 132). In this dissertation, I classify this measure as an *in-school* trapdoor. Future scholarship should address areas of conceptual divergence and attempt to link concepts

Additionally, replication studies with large, diverse samples (e.g., multiple school districts, national sample) are needed to determine convergence and divergence of concepts across contexts. Furthermore, it is unclear whether significant variation in trapdoors exists across types of ECE programs (e.g., center-based, home-based, faith-based, private vs. public). Future studies should assess the extent to which type of program, funding source, and district context influence the forms and underlying dimensions of extra-exclusionary discipline in ECE contexts. As well, future mixed methods studies that triangulate perspectives between preschool teachers/staff, administrators, and parents/caregivers should lend to rigorous theorizations of the common concepts and complexities that characterize children's early exits from preschool programs.

With large, diverse samples, quantitative methods (e.g., confirmatory factor analysis) would be especially useful to determine whether the two-factor structure of *correction* and *treatment* is stable across contexts, or whether divergence and additional dimensionality emerge. This methodology is expected to aid scale development and produce an instrument similar to the Preschool Expulsion Risk Measure (PERM) developed by Gilliam and Reyes (2018). Rather than assess a child's risk for expulsion according to a teacher report, as PERM does, a measure emanating from this dissertation would be administered at a district level to assess structural vulnerabilities for trapdoors and identify system-level targets for change.

Finally, this dissertation motivates research collaborations and partnerships intent on desire-based epistemology. As an ethic and a methodology in this dissertation, this approach to knowledge production derives significance from co-constructing transformative research, practice, and policy agendas informed by antiracist, anti-carceral, and womanist frameworks for social change.

Implications for Policy and Practice: Dismantling Trapdoors

This dissertation is backdropped by mounting state and federal policy intent on improving the social safety net and implementing universal preschool. Extra-exclusionary discipline carries

fundamental implications for a system aiming to ensure universal access and participation in preschool learning. Evidence of trapdoors suggests that unless state and federal policies account for the complexity and diversity of issues at the heart of educational (in)equity, trapdoors are expected to maintain systematic segregation and opportunity gaps in education.

This dissertation further indicates that the project of dismantling trapdoors is not a race-neutral endeavor. It is critical that policy and practice initiatives engage emancipatory frameworks, which counter racist and carceral logics wrought in anti-Black *correction* and *treatment* ideologies, for instance. The evidence from this dissertation indicates that reformist policies and practices that prohibit exclusionary discipline are insufficient when they fail to attend to structural and institutional frameworks that perpetuate the efficiency, scope, and nature of an anti-Black racist-carceral-educational nexus. Without explicit womanist and anti-carceral frameworks guiding implementation, reformist tactics strengthen scaffolds of anti-Black carceral logics and naturalize the idea that punishment and exclusion are necessary for safety and harm-reduction.

Furthermore, a complete blueprint of extra-exclusionary discipline in preschool contexts accentuates directions for system-level interventions on exclusionary discipline through professional development and regulatory mechanisms, for example. According to Sheridan et al. (2009), the desired outcome of professional development for the ECE workforce is to increase knowledge, skills, and abilities of teachers and caregivers to support child and family outcomes. Professional development efforts exist under the purview of federal, state, and local systems which structure and coordinate opportunities, typically under constrained resources. Recent research based on 2012 data from the NSECE indicates that center-based and home-based ECE workforces are similarly likely to participate in workshops, coaching and college courses as professional development (Warner-Richter et al., 2020). Additionally, Warner-Richter et al. (2020) found that ECE professionals were more likely to enroll in college courses for professional development if they received financial support to do so, which was more likely to occur if they were working at a center-based program with federal Head Start funding.

As empirical research on exclusionary discipline in early education has gained traction, federal guidelines and state, district, and school policies have shifted in recent years to allocate time and funding for professional development and school-wide initiatives to enhance quality and address exclusionary discipline disparities. In addition, an expanding evidence base has influenced the implementation of professional development, consultation and coaching, and training around alternatives to exclusionary discipline (e.g., infusion of resources for ECMHC). Varied professional development initiatives and school-wide, multi-tiered systems of support have come into fashion, including those that address diversity and anti-racism, social and emotional learning, empathy, restorative/transformative justice, and expressive arts programs. The results from this dissertation suggest that these programs and strategies may be promising avenues for an infusion of womanist and anti-carceral approaches that explicitly target trapdoors architectures in ECE.

Moreover, the work of affirming the humanity of Black childhoods is not exclusively a theoretical project. There are numerous examples of liberatory pedagogies that preschool professionals are well-positioned to inject in curricula and praxis. Putting critical and transformative theories into practice to deconstruct trapdoor architectures in ECE contexts requires novel approaches to early education. Promising avenues for dismantling carceral dimensions of ECE should engage antiracist, womanist, and anti-carceral frameworks and content. Key tenets of Black pedagogy, for instance, are that whole-personhood is vital and that love is integral to teaching and learning. Contemporary community-based projects that engage emancipatory frameworks, challenge injustice, enact radical pedagogy, and create curricula focused on holistic health, healing, and collective care are foregrounded by a history of fugitive Black space in education (e.g., Nxumalo & ross, 2019). It is critical to build collective, abolition-focused spaces to be in healing, loving

communities affirming the work of educators and the humanity of racialized and marginalized children.

Conclusion

The United States has not yet actualized a system of equitable, accessible, high-quality, and joyous preschool where all children are beloved. Descriptions of extra-exclusionary trapdoors and associated underlying dimensions add precision to research, policy frameworks, and practice interventions that address a complex architecture of exits from early learning and care. The findings from this dissertation should motivate systems-change partnerships that target hidden systemic sources of exclusion rather than downstream symptoms of exclusion such as disparities or disproportionalities in discipline outcomes. I close this dissertation in hope and imagination, in creativity and cultivation, in community and collaboration.

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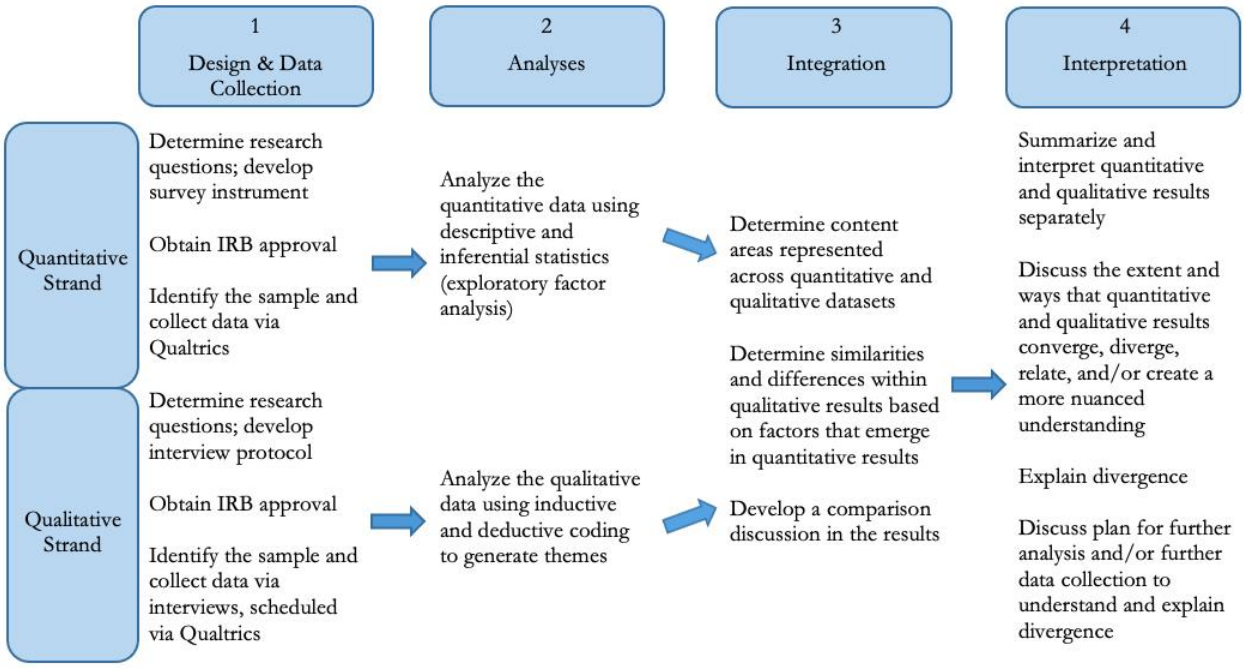
Appendix A: Additional Tables and Figures

Figure A1

Flowchart Depicting Convergent Mixed Methods Study Design and Procedure



Note. This flowchart is modeled from Creswell & Plano Clark (2011), cited in Creswell & Plano Clark (2018) p. 70.

Table A1

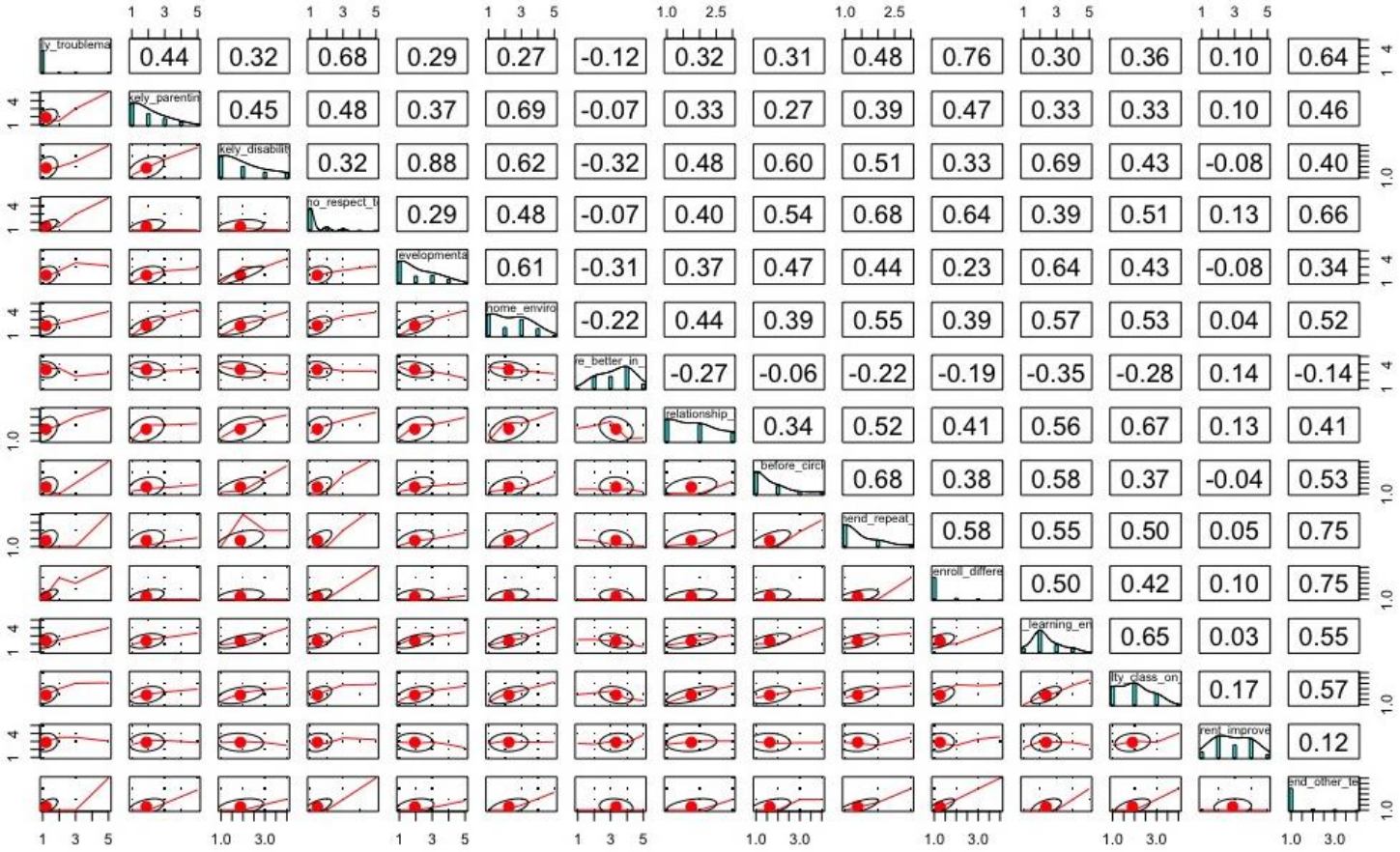
Participant Demographics – Detailed

Variable	Category	% Survey Sample	% Interview Sample
Race/ethnicity	Racially/ethnically minoritized and/or multiracial	83% (*n* = 47)	88% (*n* = 24)
Age	18-40 years old	24% (*n* =46)	29% (*n* = 24)
Gender	Female	89% (*n* = 45)	88% (*n* = 24)
Education	Bachelor's degree	25% (*n* = 45)	25% (*n* = 24)
	Master's degree	38% (*n* = 45)	38% (*n* = 24)
	Other degree	38% (*n* = 45)	29% (*n* = 24)
Job Title	Teacher	43% (*n* = 47)	71% (*n* = 24)
	Master Teacher	34% (*n* = 47)	
	Other	23% (*n* = 47)	29% (*n* = 24)
First Generation College Graduate	No	54% (*n* = 46)	43% (*n* = 23)
Salary			
Years Teaching	Less than 10 years	26% (*n* = 47)	25% (*n* = 24)
Years Teaching in School District	Less than 5 years	35% (*n* = 46)	42% (*n* = 24)
	5 to 10 years	20% (*n* = 46)	13% (*n* = 24)
	More than 10 years	46% (*n* = 46)	46% (*n* = 24)
Years Working with Children	Less than 10 years	15% (*n* = 47)	21% (*n* = 24)

Note. Sample sizes for the number of participants who responded to demographic items varied. Thus, sample sizes (represented by *n* in the respective survey and interview columns) across items are provided following the frequency statistic for each demographic category.

Figure A2

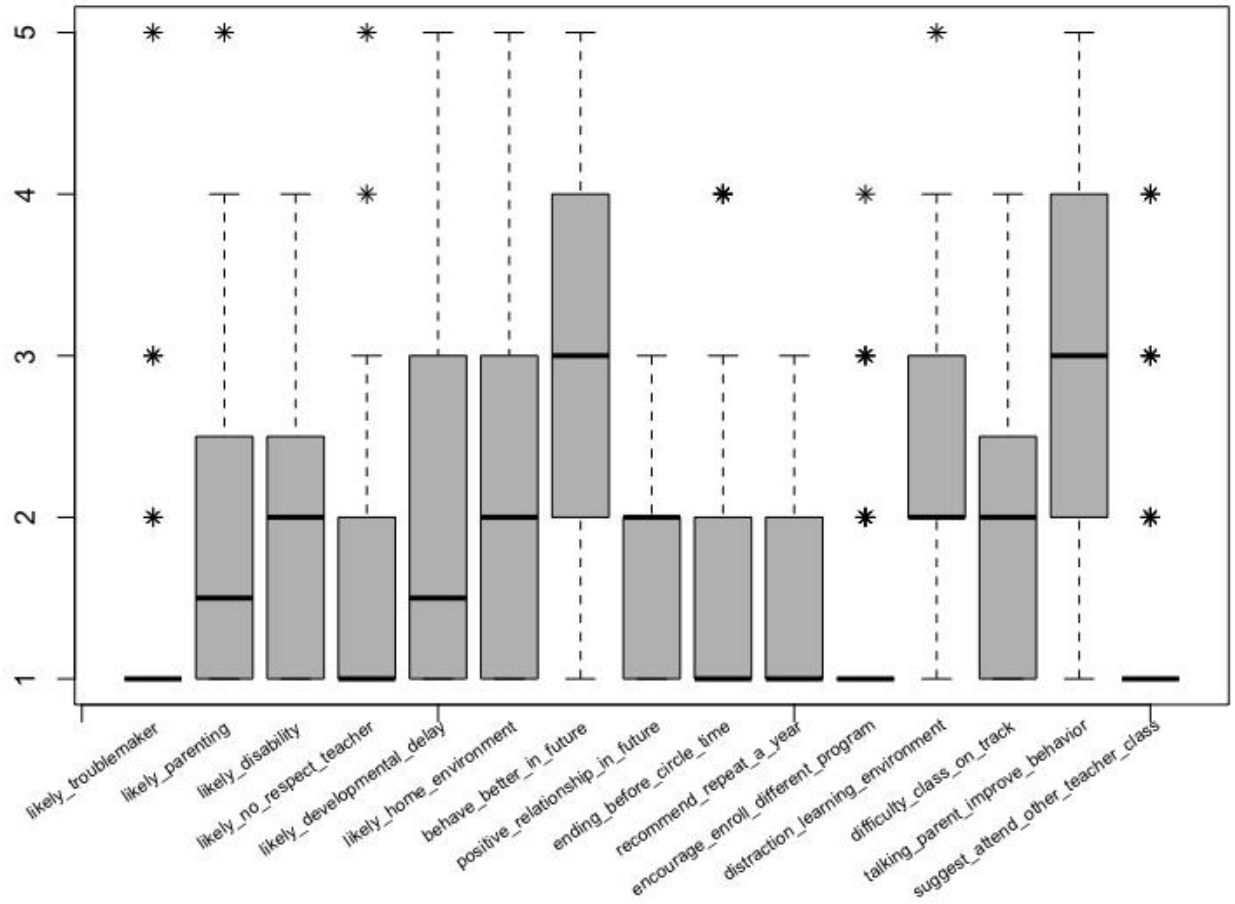
Scatterplot Matrix of Extra-Exclusionary Discipline Data – Raw Data



Note. Below the diagonal spanning the top left corner to the bottom right corner of the matrix, *xy* scatterplots are shown of each pair of variables. The diagonal itself shows the histogram of each variable as well as the *lowess* locally fit regression line. Additionally, an ellipse is shown around the variable mean, wherein the axis length is one standard deviation of the *x* and *y* variables. Above the diagonal, Pearson coefficients provide estimates of the linear relationship between variables. In the matrix, the *x*-axis in each scatterplot represents the column variable and the *y*-axis represents the row variable.

Figure A3

Boxplot of Distributional Statistics of Extra-Exclusionary Discipline Data – Complete Cases



Note. In the boxplot, the *x*-axis represents the variable and the *y*-axis represents possible values for variable responses on a scale (e.g., 1 = *Not at all likely*, 5 = *Extremely likely*).

Figure A4

Mahalanobis Distance (D^2) Plot to Identify Potential Outliers in Extra-Exclusionary Discipline Data – Complete Cases

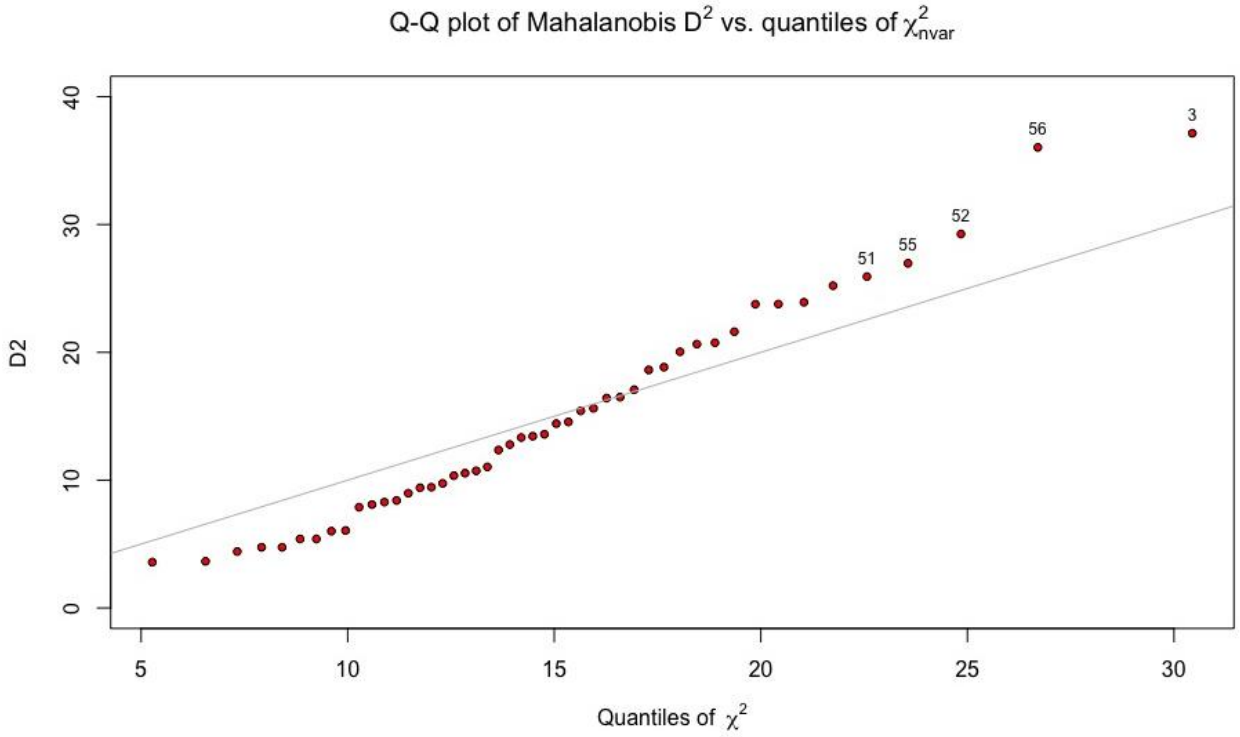
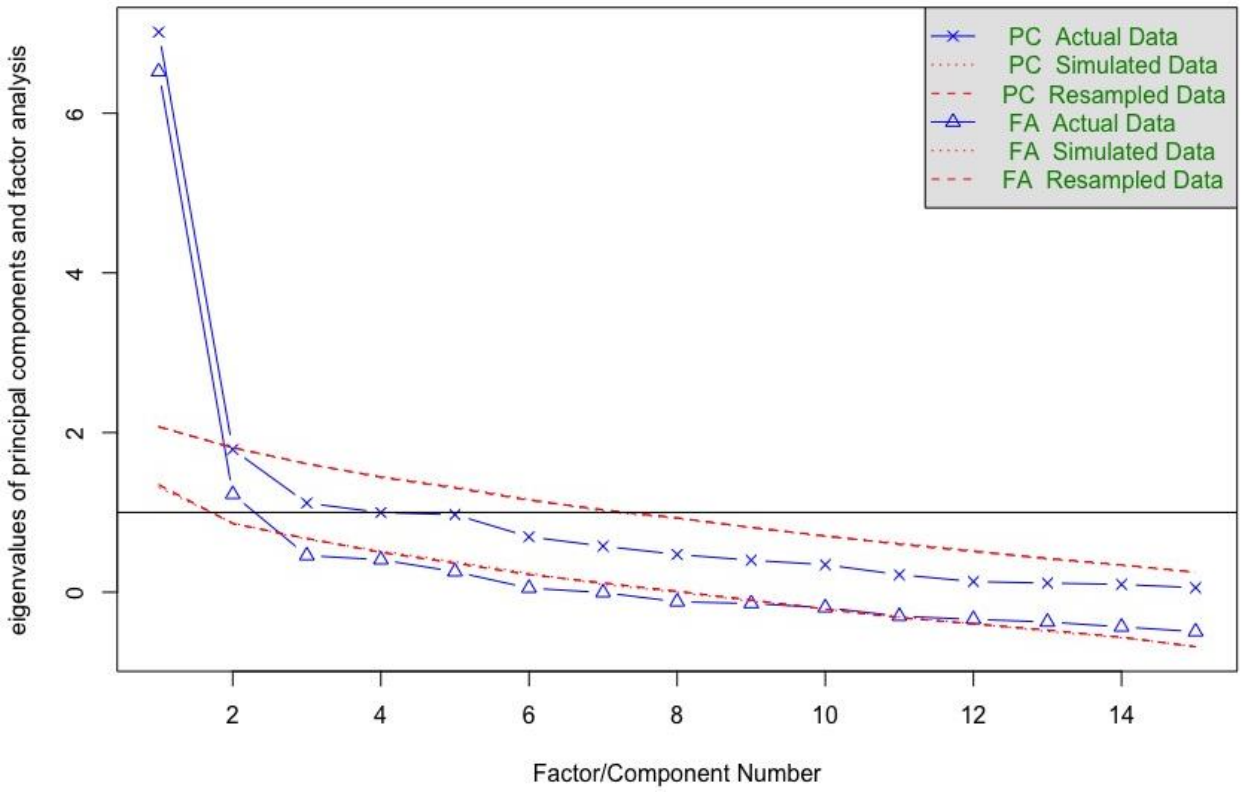


Figure A5

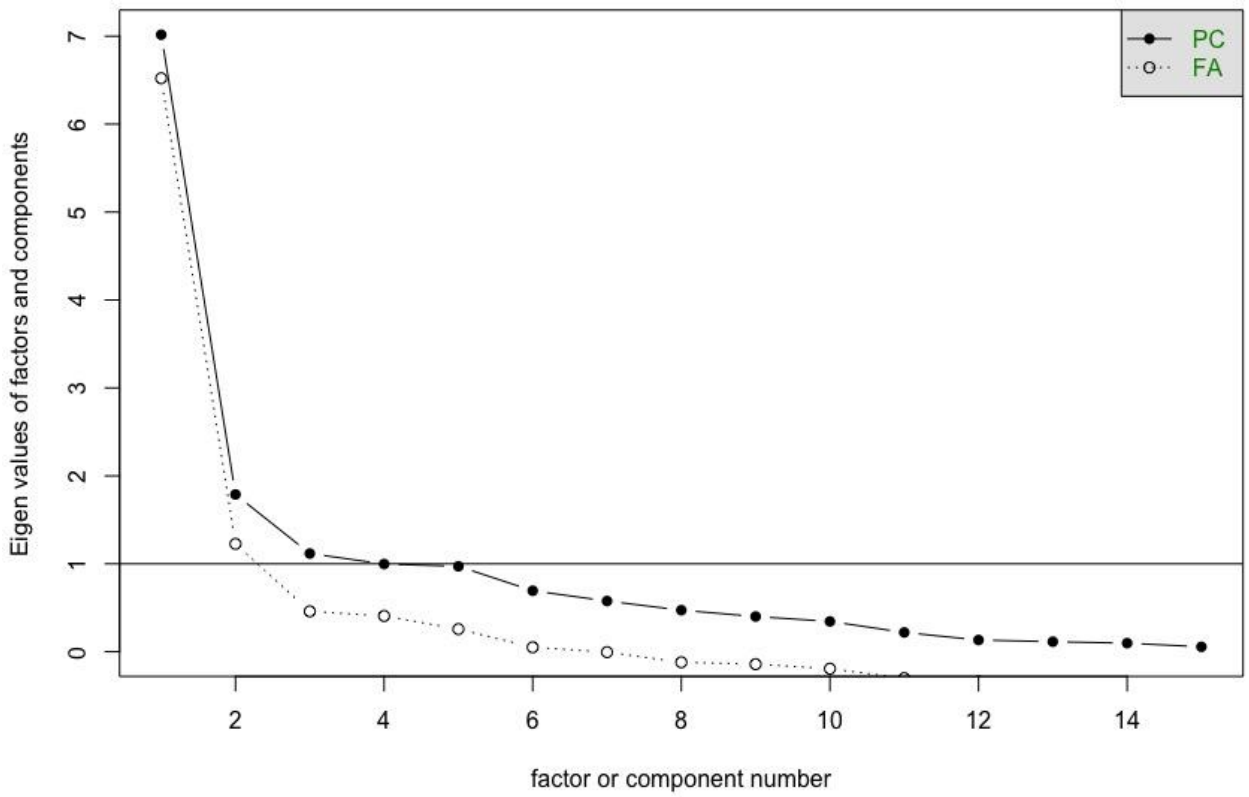
Parallel Analysis Scree Plots of Eigenvalues for All Factors and Components



Note. The scree plots of parallel analysis of eigenvalues indicates that each triangle (representing factors of actual data) located above the analogous simulated data line is a factor to extract. Above, two factors are above the simulated data line.

Figure A6

Scree Plot of Eigenvalues for All Factors and Components



Note. The scree plot above indicates support for a two-factor solution for "FA," factor analysis.

Table A2

Descriptive Statistics for Set of 15 Extra-Exclusionary Discipline Variables (n = 48)

Variable	*M*	*SD*	Min	Max	Skew	Kurtosis	*SE*
likely troublemaker	1.21	0.71	1	5	3.82	15.36	0.10
likely parenting	1.85	1.05	1	5	1.04	0.20	0.15
likely disability	1.90	1.06	1	4	0.84	-0.64	0.15
likely no respect teacher	1.46	0.90	1	5	2.11	4.16	0.13
likely developmental delay	1.98	1.16	1	5	0.76	-0.68	0.17
likely home environment	2.27	1.18	1	5	0.31	-1.19	0.17
behave better in future	3.25	0.98	1	5	-0.23	-0.97	0.14
positive relationship in future	1.79	0.77	1	3	0.36	-1.28	0.11
ending before circle time	1.62	0.94	1	4	1.39	0.86	0.14
recommend repeat a year	1.38	0.64	1	3	1.42	0.74	0.09
encourage enroll different program	1.27	0.68	1	4	2.47	5.34	0.10
distraction learning environment	2.40	0.92	1	5	0.79	0.15	0.13
difficulty class on track	1.96	0.80	1	4	0.32	-0.79	0.12
talking parent improve behavior	2.88	1.14	1	5	0.07	-1.10	0.16
suggest attend other teacher class	1.33	0.78	1	4	2.25	4.03	0.11

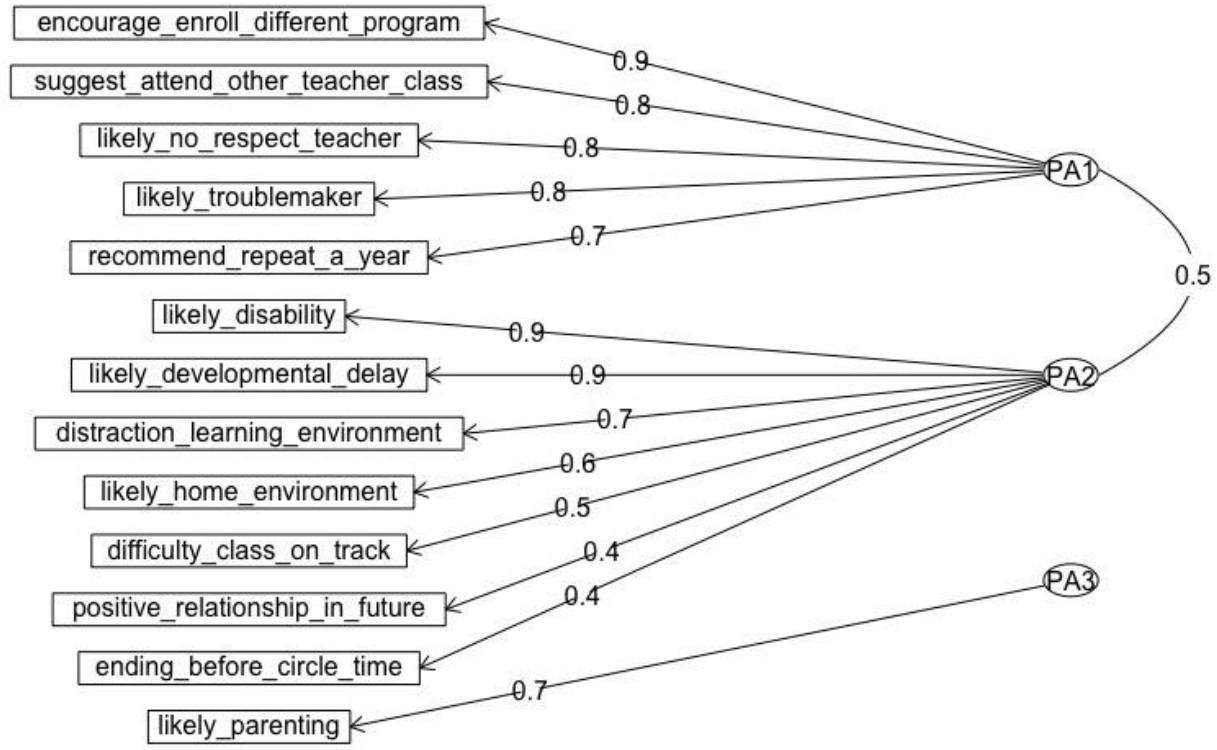
Table A3

Descriptive Statistics for Set of 13 Extra-Exclusionary Discipline Variables (n = 49)

Variable	*M*	*SD*	Min	Max	Skew	Kurtosis	*SE*
likely troublemaker	1.20	0.71	1	5	3.87	15.78	0.10
likely parenting	1.90	1.08	1	5	0.96	-0.08	0.15
likely disability	1.88	1.05	1	4	0.87	-0.59	0.15
likely no respect teacher	1.45	0.89	1	5	2.14	4.33	0.13
likely developmental delay	1.96	1.15	1	5	0.79	-0.64	0.16
likely home environment	2.24	1.18	1	5	0.35	-1.18	0.17
positive relationship in future	1.78	0.77	1	3	0.39	-1.26	0.11
ending before circle time	1.61	0.93	1	4	1.42	0.95	0.13
recommend repeat a year	1.37	0.64	1	3	1.45	0.84	0.09
encourage enroll different program	1.27	0.67	1	4	2.51	5.55	0.10
distraction learning environment	2.37	0.93	1	5	0.76	0.12	0.13
difficulty class on track	1.94	0.80	1	4	0.34	-0.80	0.11
suggest attend other teacher class	1.33	0.77	1	4	2.29	4.21	0.11

Figure A7

Path Diagram of Three-Factor Model Factor Structure



Note. In the path diagram above, "PA1" indicates the first underlying factor, "PA2" indicates the second underlying factor, and "PA3" indicates the third underlying factor extracted using principal axis factoring and oblique (oblimin) rotation. The solid lines with arrows indicate the direction of each underlying factor's effects on the measured variables. The line connecting PA1 and PA2 indicates factor inter-correlation. Pattern coefficients representing factor loadings are shown on each line. As noted in the main text, *likely parenting* is a "singlet," indicating evidence that the three-factor model is symptomatic of over-extraction.

Table A4

Structure Matrix for Two-Factor Model

Variable	Factor 1 Loading	Factor 2 Loading
Likely troublemaker	.756	.290
Likely parenting	.533	.465
Likely no respect teacher	.830	.422
Recommend repeat a year	.781	.611
Encourage enroll different program	.850	.369
Suggest attend other teacher class	.872	.506
Likely disability	.420	.919
Likely developmental delay	.339	.847
Likely home environment	.540	.714
Positive relationship in future	.506	.585
Ending before circle time	.560	.594
Distraction learning environment	.553	.793
Difficulty class on track	.585	.626

Appendix B: Study Instruments, Protocols, and Information

Approach to Participant Demographic Variable Coding

Please note that this approach to coding demographic variables is similarly detailed in the *Supplemental Materials* of Bookser et al. (2021):

Each of the following demographic variables are outlined as they were reported in the data. However, to assist in maintaining participant confidentiality in this dissertation (as with Bookser et al., 2021), I report combined response choices for each variable. The combined response choices are presented below each variable description. Variables for *race* and *education* allowed participants to select more than one response choice, which led to both race and education being recoded. Specifically, *race* was coded such that 0 = *White/Caucasian, European (non-Hispanic)*, and 1 = *All other races and/or combination of races*. Furthermore, *education* was coded such that if participants selected a particular degree and a *Professional certification/license* then their responses only accounted for their highest earned degree such that *Professional certification/license* was only accounted for if that was the only response provided when participants reported this information.

- **Race** was reported by participants selecting one or more of the following racial/ethnic groups to which they belong:
    - 1 = American Indian, Alaska Native, Indigenous,
    - 2 = Asian/Asian American,
    - 3 = Black, African American, African Caribbean (non-Hispanic),
    - 4 = Filipinx, Southeast Asian,
    - 5 = Latinx, Chicanx, Hispanic,
    - 6 = Middle Eastern,
    - 7 = Native Hawaiian or other Pacific Islander,
    - 8 = White/Caucasian, European (non-Hispanic), or
    - 9 = Other

- **Age** was reported by participants selecting one of the following age groups:
    - 1 = 18-30 years old,
    - 2 = 31-40 years old,
    - 3 = 41-60 years old, or
    - 4 = 61 years old and above.
    - We combined the following categories, *18-30 years old* and *31-40 years old* to create a new age grouping from *18-40 years old*, and *41-60 years old* and *61 years old and above* to create *41 years old and above*.

- **Gender** was reported by participants selecting one or more of the following categories:
    - 1 = Agender or Gender Non-Binary/Non-Conforming,
    - 2 = Female,
    - 3 = Male,
    - 4 = Trans Man or Trans Masculine,
    - 5 = Trans Woman or Trans Feminine,
    - 6 = Two-Spirit, or
    - 7 = Other.

  - In the interview sample, participants also had an option to specify their gender pronouns (e.g., *they/them*, *she/her*). One participant specified *male* gender and *she/her* pronouns, so this dissertation categorized that participant as *female*.

- **Education** was reported by participants selecting the highest educational degree that they have attained by selecting one of the following:
  - 1 = Associate's degree,
  - 2 = Bachelor's degree,
  - 3 = Master's degree,
  - 4 = Professional certification/license,
  - 5 = Doctoral degree, or
  - 6 = Other.
  - The following categories were combined to create an *Other* category: *Associate's degree* and *Professional certification/license*.

- **Job title** was reported by participants selecting the job title that best fit their level of experience from the following:
  - 1 = Assistant Teacher,
  - 2 = Associate Teacher,
  - 3 = Teacher,
  - 4 = Master Teacher, or
  - 5 = Other.
  - For survey data, we combined the following categories, *Assistant Teacher* and *Other* to reflect a more general other category. For interview demographic data, participants were invited to respond to a more inclusive item asking them to specify which optio best fit their role from the following: 1 = *Site director or administrator*, 2 = *Teacher*, and 3 = *Other*.

- **First generation college graduate status** was reported by selecting one of the following:
  - 0 = No or
  - 1 = Yes.
  - *First generation college graduate* status was reported as is. Note that in the interview demographic data, these items were categorical where 1 = *Yes* and 2 = *No*.

- **Salary** was reported by participants selecting their salary or annual income range from their job from one of the following categories:
  - 1 = Less than $27,000,
  - 2 = $27,000 to $35,000,
  - 3 = $35,000 to $45,000,
  - 4 = $45,000 to $60,000, or
  - 5 = More than $60,000.
  - To protect confidentiality this information is not reported.

- **Years teaching** was reported by participants selecting one of the following ranges of time that they have been a teacher:
  - 1 = Less than 1 year,
  - 2 = 1 to 5 years,

  - 3 = 5 to 10 years,
  - 4 = 10 to 15 years, or
  - 5 = More than 15 years.
  - We combined the following categories, *Less than 1 year*, *1 to 5 years* and *5 to 10 years* to create *Less than 10 years*, and *10 to 15 years* and *More than 15 years* to create *More than 10 years*.

- **Years teaching in the district** was reported by participants selecting one of the following ranges of time that they have teaching in the district:
  - 1 = Less than 1 year,
  - 2 = 1 to 5 years,
  - 3 = 5 to 10 years,
  - 4 = 10 to 15 years, or
  - 5 = More than 15 years.
  - We combined the following categories, *Less than 1 year* and *1 to 5 years* to create *Less than 5 years*; and *10 to 15 years* and *More than 15 years* to create *More than 10 years*.

- **Years working with children** was reported by participants selecting one of the following ranges of time that they have worked with children:
  - 1 = Less than 1 year,
  - 2 = 1 to 5 years,
  - 3 = 5 to 10 years,
  - 4 = 10 to 15 years, or
  - 5 = More than 15 years.
  - We combined the following categories, *Less than 1 year*, *1 to 5 years*, and *5 to 10 years* to create *Less than 10 years*; and *10 to 15 years* and *More than 15 years* to create *More than 10 years*.

Survey Vignettes

Keywords used to stimulate the in-person and distance learning conditions are underlined below but were not underlined when presented to participants.

In-Person Classroom Context

1. Today, Terrell is particularly quiet and is not participating in the class activities. When you invite him to join everyone in a song, he avoids you and says he wants his parent. When you ask again for his participation, Terrell cries and causes a disturbance in the classroom for the next 10 minutes.

2. Three days later, Terrell misbehaves again… This morning, you notice Terrell is playing with a pencil instead of participating in class. You ask him to pay attention. He says, "I don't feel like it," and continues to play with a pencil. You ask him again to put down his pencil. He starts to cry aloud. You then ask him to count to five and take five deep breaths, but he starts to run around the classroom instead. You offer to escort him out of the classroom, but he continues to run around the room.

3. Today, Terrell is consistently disrupting "circle time" in the classroom by making funny faces and causing visual distractions. In general, Terrell notices his peers giggling and disrupts the flow of circle time. When another student in the class asks Terrell to stop, Terrell laughs very loudly and then starts making faces at the other students.

Virtual Classroom Context

1. Today, Terrell is particularly quiet and is not participating in the distance learning activities. When you invite him to join everyone in a song, he avoids the screen and says he wants his parent. When you ask again for his participation, Terrell cries and causes a disturbance in the virtual classroom for the next 10 minutes.

2. Three days later, Terrell misbehaves again… This morning, you notice Terrell is playing with a pencil instead of participating in class. You ask him to pay attention. He says, "I don't feel like it," and continues to play with a pencil. You ask him again to put down his pencil. He starts to cry aloud. You then ask him to count to five and take five deep breaths, but he starts to run around his room instead. You offer to switch him to a breakout room, but he continues to run around the room.

3. Today, Terrell is consistently disrupting "circle time" in the virtual classroom by making funny faces and causing visual distractions. In general, Terrell notices his peers giggling on camera and disrupts the flow of circle time. When another student in the class asks Terrell to stop, Terrell laughs very loudly and then starts making faces at the other students.

Survey Instrument Summary

Please note that extensive detail about the survey is provided in the *Supplemental Materials* of Bookser et al. (2021).

After consenting to participate and reading instructions, participants read vignettes and responded to repeated measures after each vignette about the extent to which they felt troubled by Terrell's behaviors and the severity with which they would discipline him (consistent with Principal Investigator Okonofua's research program).

Next, participants responded to the 15 items discussed in this dissertation, provided below for convenience:

Item	Variable Name	Description
1	likely troublemaker	How likely are you to say that Terrell acted the way he did because he is a troublemaker
2	likely parenting	How likely are you to say that Terrell acted the way he did because of the parenting he has received
3	likely disability	How likely are you to say that Terrell acted the way he did because he has a disability
4	likely no respect teacher	How likely are you to say that Terrell acted the way he did because he does not respect me as a teacher
5	likely developmental delay	How likely are you to say that Terrell acted the way he did because he is developmentally delayed
6	likely home environment	How likely are you to say that Terrell acted the way he did because of his home environment
7	behave better in future	How likely is it that Terrell will behave better in the near future?
8	positive relationship in future	How difficult will it be to establish a positive relationship with Terrell in the future?
9	ending before circle time	How likely would you be to ask Terrell to start ending his school days before afternoon circle time?
10	recommend repeat a year	How likely is it that you would recommend Terrell repeat a year of prekindergarten?
11	encourage enroll different program	How likely is it that you would encourage Terrell's family to enroll him in a different preschool program?
12	distraction learning environment	How much of a distraction is Terrell to the learning environment?
13	difficulty class on track	How difficult would Terrell's behavior make it to get the class back on track?
14	talking parent improve behavior	How much will Terrell's behavior improve if his parents are contacted?
15	suggest attend other teacher class	How likely would you suggest that Terrell attend another prekindergarten teacher's class?

Additional Measures

In addition to the items above, the survey included the following measures:

1. Perception of School Climate Scale (Wolf et al., 2004)
2. 3-Factor Patience Scale (Schnitker, 2012)
3. Student-Teacher Relationship Scale (Pianta & Nimetz, 1991)
4. Fear of COVID-19 Scale (Ahorsu et al., 2020)
5. Open-ended questions (8) designed by the research team (e.g., "How has managing disruptive child behaviors changed since moving to distance learning compared to in-person learning? What do you do?")

6. Demographic Measures[16]

References for Additional Measures

Ahorsu, D. K., Lin, C. Y., Imani, V., Saffari, M., Griffiths, M. D., & Pakpour, A. H. (2020). The Fear of COVID-19 Scale: Development and Initial Validation. *International journal of mental health and addiction*, 1–9.

Pianta, R. C., & Nimetz, S. L. (1991). Relationships between children and teachers: Associations with classroom and home behavior. *Journal of Applied Developmental Psychology, 12*(3), 379–393.

Schnitker, S. (2012). An examination of patience and well-being. *The Journal of Positive Psychology, 7*(4), 263–280.

Wolfe, E. W., Ray, L. M., & Harris, D. C. (2004). A Rasch Analysis of Three Measures of Teacher Perception Generated from the School and Staffing Survey. *Educational and Psychological Measurement*, *64*(5), 842–860.

[16] Please note that information detailing demographic measures included in the survey appeared earlier in Appendix B.

Interview Recruitment Template Examples

Recruitment Email

This email is to be sent with a link to Qualtrics 'survey' containing the consent form and scheduling item.

From: edenslab@berkeley.edu
To: { district email address for teacher, school leader, or staff }

Subject: You are Invited to Participate in UC Berkeley Research

Greetings,

You are invited to participate in a private, confidential, one-hour **Zoom interview** as part of an ongoing research study by the EDENS Lab, a research group at the University of California, Berkeley. The purpose of the interview is to better understand your experiences with students, especially during these times of adjustment, and inform support that the school district can provide. Your honest opinions and observations are needed to build an understanding of the strengths and challenges you experience.

Participants who complete an interview will receive a **$50 Amazon gift card via email** within two weeks of the interview.

If you are interested in participating, please visit our webpage to learn more and schedule your Zoom interview.

This study has been approved by the UC Berkeley Institutional Review Board. Research protocols have been reviewed and piloted with educators and practitioners. The research team members include post-baccalaureate and graduate students from UC Berkeley. If you have any questions about the Zoom interview, you may contact the EDENS Lab Research Team, at edenslab@berkeley.edu.

Thank you!

Best Regards,
Jason Okonofua, Ph.D., & the EDENS Lab Research Team

Confirmation Email

This confirmation email is to be sent with a confirmation of the interview and explanation that the Zoom invite will follow. This is located in the "Messages" library and will be automatically sent when respondents submit their surveys.

From: edenslab@berkeley.edu
To: { district email address for teacher, school leader, or staff }

Subject: Confirmation: Scheduling Your Interview for UC Berkeley Research

Greetings,

Thank you for your interest in participating in a private, confidential, one-hour **Zoom interview** as part of an ongoing research study by the EDENS Lab, a research group at the University of California, Berkeley. We look forward to speaking with you!

If you have selected your interview appointment time, please expect an email from edenslab@berkeley.edu containing the Zoom invitation. If you were unable to find an appointment, but would like to participate, please stay tuned for an announcement when we release more appointments.

Please make sure that you have a Zoom account. If you do not have Zoom yet, please set it up on your device by visiting the Zoom Download Center. If you would like your name to be anonymous in the transcript generated from the interview, please use your initials or a different "name" on your Zoom account. After the transcript has been generated, all names and personally identifiable information will be removed from the file.

A **$50 Amazon gift card will be sent via email** within two weeks of the interview.

The purpose of the interview is to better understand your experiences with students, especially during these times of adjustment, and inform support that the school district can provide. Your honest opinions and observations are needed to build an understanding of the strengths and challenges you experience. This study has been approved by the UC Berkeley Institutional Review Board. Research protocols have been reviewed and piloted with educators and practitioners. The research team members include post-baccalaureate and graduate students from UC Berkeley. If you have any questions about the Zoom interview, you may contact the EDENS Lab Research Team, at edenslab@berkeley.edu.

Thank you!

Best Wishes,
Jason Okonofua, Ph.D., & the EDENS Lab Research Team

Zoom Invitation Email

Set up the Zoom meeting on your calendar first. Then, compose this email from the edenslab@berkeley.edu address. Copy and paste the Zoom meeting information from your calendar into the space below. Refer to the Tracking spreadsheet for the recipient's email address and the correct day/time for their appointment.

From: edenslab@berkeley.edu
To: { district email address for teacher, school leader, or staff }

Subject: Your Interview Appointment for UC Berkeley Research

Greetings!

Thank you very much for scheduling your interview appointment! We are grateful for your interest and we look forward to speaking with you. Please SAVE this interview appointment to your calendar. The information for our Zoom meeting is below:

< insert Zoom appointment information here >

Interview Protocols

School Leader Interview Protocol

This protocol is for use in Zoom interviews with school leaders.

Information for Interviewers: Steps for the Interview Process

Before the Interview (10-minutes)

1. See the "[redacted name] - Interviews > Interview Tracking" spreadsheet in Box to plan for upcoming interviews

2. Send reminder emails referencing your Zoom interview appointment details on day-before and day-of interview (remind participant that they must have a Zoom account set up; if they don't have Zoom yet, they can set it up on their device by visiting the Zoom Download Center; if participants would like their name to be anonymous in the transcript, they can use their initials or a different "name" on their Zoom account)

3. **Prepare your device/Zoom to save recordings "locally" to a project-specific folder in Box**

During the Interview (60-minutes)

4. Introduce yourself — you are a researcher on a UC Berkeley-led study learning more about student behaviors, classroom management, and school culture

5. Briefly read through the next section (Information for Interview Participants) on the next page with the participant, emphasizing that the interview is voluntary, confidential, and they can stop at any time

6. **RECORD LOCALLY TO BOX**

7. Try to cover as many of the Interview Items during the allotted time. Probe in order to elicit specific examples and stories from participants. Try to use the exact wording of the items and proceed in order. It is okay if the interview naturally progresses "out of order," as long as you are able to cover major items/themes of the interview. If you sense that the interview may continue longer than anticipated, remind the participant that you are grateful for their time, and ask if they have a few extra minutes: if so, select the most important thing/s to ask before wrapping up; if not, wrap up in the allotted time

8. Thank the participant for their time

9. Remind the participant that their $50 Amazon gift card will be sent within two weeks of their participation via email

10. **STOP RECORDING**

After the Interview (30-minutes)

11. The (1) the audio file and (2) video file should be automatically saved to the project folder "[redacted name] - Interviews" on Box

12. **Delete the video file - this will not be used in analyses**

13. Copy the raw audio file to the "[redacted name] - Interviews > School Leader Interviews > Copied Files_School Leader" folder on Box

14. In the "Copied Files_School Leader" folder, re-name the copied file(s) using this naming convention:
    a. Audio: participant id_audio_date
    b. Transcript (if applicable): participant id_trans_date

15. Update the "[redacted name] - Interviews > Interview Tracking" spreadsheet on Box

16. **Make sure that files are only saved in Box, not saved to your desktop or personal computer**

Information for Interview Participants

Hello! My name is _____ and I am a researcher on a UC Berkeley-led study that is learning more about early childhood education. Thank you SO much for all of the work you are doing. We are grateful to have the chance to meet with you and learn more about your perspectives and experiences.

Your responses to this interview will support a research project that seeks to better understand children's behaviors in school settings and the most effective methods of disciplinary action. This interview is expected to take approximately 60-minutes and is part of an ongoing research study by the EDENS Lab, a research group at the University of California, Berkeley.

Participating in this interview is voluntary. You have the right to decline to participate or to withdraw at any point in this interview without penalty or loss of benefits to which you are otherwise entitled. You may choose not to answer a question. Your interview data will be handled as confidentially as possible. We will only collect your name in the interview transcript if you choose to share it on Zoom and we will use your email for payment purposes. Email addresses will be stored separately from the data. If results of this interview are published or presented, individual names and other personally identifiable information will not be used. School and district administrators will never have access to the individual responses and they will never be told who participated or did not participate in the research study. Any report from the information collected will be in summary form and will not identify individuals or use personal identifying information.

If you have any questions or concerns about this interview, you may contact the EDENS Lab Research Team, at edenslab@berkeley.edu. If you have any questions or concerns about your

rights and treatment as a research subject, you may contact the office of UC Berkeley's Committee for the Protection of Human Subjects, at 510-642-7461 or subjects@berkeley.edu.

School Leader Interview Items

{START RECORDING}

Background

1. What was school like for you when you were growing up?
    a. Can you recall any memorable teachers? What were they like?

2. What was your path to becoming a school leader?

3. What is your daily life like as a school leader?

Prekindergarten School Context

4. How would you describe the *values* or *culture* at your school?

5. What goals or initiatives is your school focused on?

6. How do you manage compliance with new state policies?

Community Context

7. How would you describe the community that your school is located in?

8. What role does your school play in the community?

Children & Families

9. Think about your experiences *before COVID-19* for this next question: Can you describe a situation when parents/caregivers were called to pick up their child early from pre-K?
    a. Who made the call?
    b. What are the reasons children might go home early?
    c. How long will children stay home?

10. *Before COVID-19:* How often were prekindergarten children sent to your office or the administrative office?
    a. Under what circumstances did this occur?
    b. What happens now, *during COVID-19?*

11. Why might families choose to enroll their children in a different prekindergarten program? What situations lead to that?

Challenging Behaviors

12. How do current district or school policies guide the way you advise teachers in managing challenging behaviors?

13. What do you think are the *root causes* of children's challenging behaviors?

14. What are the most effective ways to manage children's challenging behaviors?

15. What additional supports could the *district* provide that would reduce children's challenging behaviors?

16. Is there a policy in place for managing challenging behaviors in virtual classrooms?

The Future

17. What do you think the future holds for the children at your school? What are your hopes and wishes?

18. What do you think the future holds for the community? What are your hopes and wishes?

19. What do you think the future holds for you? What are your hopes and wishes?

Conclusion

20. Thank you so much for speaking with me and sharing your important experiences, perspectives, and hopes. I have asked you a lot of questions, so now I'd like to ask if you have any questions for me? Are there any topics that you would like to go back to?

Reminder: The $50 Amazon gift card will be sent via email from edenslab@berkeley.edu within 2 weeks of the interview

{STOP RECORDING}

Staff Interview Protocol

This protocol is for use in Zoom interviews with staff members at schools.

Information for Interviewers: Steps for the Interview Process

Before the Interview (10-minutes)

1. See the "[redacted name] - Interviews > Interview Tracking" spreadsheet in Box to plan for upcoming interviews

2. Send reminder emails referencing your Zoom interview appointment details on day-before and day-of interview (remind participant that they must have a Zoom account set up; if they don't have Zoom yet, they can set it up on their device by visiting the Zoom Download Center; if participants would like their name to be anonymous in the transcript, they can use their initials or a different "name" on their Zoom account)

3. **Prepare your device/Zoom to save recordings "locally" to a project-specific folder in Box**

During the Interview (60-minutes)

4. Introduce yourself — you are a researcher on a UC Berkeley-led study learning more about student behaviors, classroom management, and school culture

5. Briefly read through the next section (Information for Interview Participants) on the next page with the participant, emphasizing that the interview is voluntary, confidential, and they can stop at any time

6. **RECORD LOCALLY TO BOX**

7. Try to cover as many of the Interview Items during the allotted time. Probe in order to elicit specific examples and stories from participants. Try to use the exact wording of the items and proceed in order. It is okay if the interview naturally progresses "out of order," as long as you are able to cover major items/themes of the interview. If you sense that the interview may continue longer than anticipated, remind the participant that you are grateful for their time, and ask if they have a few extra minutes: if so, select the most important thing/s to ask before wrapping up; if not, wrap up in the allotted time

8. Thank the participant for their time

9. Remind the participant that their $50 Amazon gift card will be sent within two weeks of their participation via email

10. **STOP RECORDING**

After the Interview (30-minutes)

11. The (1) the audio file and (2) video file should be automatically saved to the project folder "[redacted name] - Interviews" on Box

12. **Delete the video file - this will not be used in analyses**

13. Copy the raw audio file to the "[redacted name] - Interviews > Staff Interviews > Copied Files_Staff" folder on Box

14. In the "Copied Files_Staff" folder, re-name the copied file(s) using this naming convention:
    a. Audio: participant id_audio_date
    b. Transcript (if applicable): participant id_trans_date

15. Update the "[redacted name] - Interviews > Interview Tracking" spreadsheet on Box

16. **Make sure that files are only saved in Box, not saved to your desktop or personal computer**

Information for Interview Participants

Hello! My name is _____ and I am a researcher on a UC Berkeley-led study that is learning more about early childhood education. Thank you SO much for all of the work you are doing. We are grateful to have the chance to meet with you and learn more about your perspectives and experiences.

Your responses to this interview will support a research project that seeks to better understand children's behaviors in school settings and the most effective methods of disciplinary action. This interview is expected to take approximately 60-minutes and is part of an ongoing research study by the EDENS Lab, a research group at the University of California, Berkeley.

Participating in this interview is voluntary. You have the right to decline to participate or to withdraw at any point in this interview without penalty or loss of benefits to which you are otherwise entitled. You may choose not to answer a question. Your interview data will be handled as confidentially as possible. We will only collect your name in the interview transcript if you choose to share it on Zoom and we will use your email for payment purposes. Email addresses will be stored separately from the data. If results of this interview are published or presented, individual names and other personally identifiable information will not be used. School and district administrators will never have access to the individual responses and they will never be told who participated or did not participate in the research study. Any report from the information collected will be in summary form and will not identify individuals or use personal identifying information.

If you have any questions or concerns about this interview, you may contact the EDENS Lab Research Team, at edenslab@berkeley.edu. If you have any questions or concerns about your rights and treatment as a research subject, you may contact the office of UC Berkeley's Committee for the Protection of Human Subjects, at 510-642-7461 or subjects@berkeley.edu.

Staff Interview Items

{START RECORDING}

Background

1. What was school like for you when you were growing up?
    a. Can you recall any memorable teachers? What were they like?

2. What is your current role and what do you do?

3. What is your daily life like in this role?

Prekindergarten School Context

4. How would you describe the *values* or *culture* of the school/s where you work?

5. How does the *school leadership* support you?
    a. Is this effective, and how so?

6. How does the *district leadership* support you?
    a. Is this effective, and how so?

Children & Families

7. Think about your experiences *before COVID-19* for this next question: Can you describe a situation when parents/caregivers were called to pick up their child early from pre-K?
    a. Who made the call?
    b. What are the reasons children might go home early?
    c. How long will children stay home?

8. Why might families enroll their children in a different prekindergarten program? What situations might lead to that?

Challenging Behaviors

9. What are your expectations for prekindergarten children's behavior?

10. Think about a *specific moment* with a child that was especially challenging.
    a. What happened?
    b. What were your concerns?
    c. Was the family involved?
    d. Was the school leader/administrator involved?
    e. How was the situation resolved?
    f. Did you feel supported?
    g. Was this process effective?

11. What do you think are the *root causes* of children's challenging behaviors?

12. What are the most effective ways to manage children's challenging behaviors?

13. Are there any children from your school/s who were temporarily suspended or permanently expelled last year/ever? If so, how many? What was the situation?

The Future

14. What do you think the future holds for the children at your school? What are your hopes and wishes?

15. What do you think the future holds for the community? What are your hopes and wishes?

16. What do you think the future holds for you? What are your hopes and wishes?

Conclusion

17. Thank you so much for speaking with me and sharing your important experiences, perspectives, and hopes. I have asked you a lot of questions, so now I'd like to ask if you have any questions for me? Are there any topics that you would like to go back to?

Reminder: The $50 Amazon gift card will be sent via email from edenslab@berkeley.edu within 2 weeks of the interview

{STOP RECORDING}

Teacher Interview Protocol

This protocol is for use in Zoom interviews with teachers.

Information for Interviewers: Steps for the Interview Process

Before the Interview (10-minutes)

1. See the "[redacted name] - Interviews > Interview Tracking" spreadsheet in Box to plan for upcoming interviews

2. Send reminder emails referencing your Zoom interview appointment details on day-before and day-of interview (remind participant that they must have a Zoom account set up; if they don't have Zoom yet, they can set it up on their device by visiting the Zoom Download Center; if participants would like their name to be anonymous in the transcript, they can use their initials or a different "name" on their Zoom account)

3. **Prepare your device/Zoom to save recordings "locally" to a project-specific folder in Box**

During the Interview (60-minutes)

4. Introduce yourself — you are a researcher on a UC Berkeley-led study learning more about student behaviors, classroom management, and school culture

5. Briefly read through the next section (Information for Interview Participants) on the next page with the participant, emphasizing that the interview is voluntary, confidential, and they can stop at any time

6. **RECORD LOCALLY TO BOX**

7. Try to cover as many of the Interview Items during the allotted time. Probe in order to elicit specific examples and stories from participants. Try to use the exact wording of the items and proceed in order. It is okay if the interview naturally progresses "out of order," as long as you are able to cover major items/themes of the interview. If you sense that the interview may continue longer than anticipated, remind the participant that you are grateful for their time, and ask if they have a few extra minutes: if so, select the most important thing/s to ask before wrapping up; if not, wrap up in the allotted time

8. Thank the participant for their time

9. Remind the participant that their $50 Amazon gift card will be sent within two weeks of their participation via email

10. **STOP RECORDING**

After the Interview (30-minutes)

11. The (1) the audio file and (2) video file should be automatically saved to the project folder "[redacted name] - Interviews" on Box

12. **Delete the video file - this will not be used in analyses**

13. Copy the raw audio file to the "[redacted name] - Interviews > Teacher Interviews > Copied Files_Teacher" folder on Box

14. In the "Copied Files_Teacher" folder, re-name the copied file(s) using this naming convention:
    a. Audio: participant id_audio_date
    b. Transcript (if applicable): participant id_trans_date

15. Update the "[redacted name] - Interviews > Interview Tracking" spreadsheet on Box

16. **Make sure that files are only saved in Box, not saved to your desktop or personal computer**

Information for Interview Participants

Hello! My name is _____ and I am a researcher on a UC Berkeley-led study that is learning more about early childhood education. Thank you SO much for all of the work you are doing. We are grateful to have the chance to meet with you and learn more about your perspectives and experiences.

Your responses to this interview will support a research project that seeks to better understand children's behaviors in school settings and the most effective methods of disciplinary action. This interview is expected to take approximately 60-minutes and is part of an ongoing research study by the EDENS Lab, a research group at the University of California, Berkeley.

Participating in this interview is voluntary. You have the right to decline to participate or to withdraw at any point in this interview without penalty or loss of benefits to which you are otherwise entitled. You may choose not to answer a question. Your interview data will be handled as confidentially as possible. We will only collect your name in the interview transcript if you choose to share it on Zoom and we will use your email for payment purposes. Email addresses will be stored separately from the data. If results of this interview are published or presented, individual names and other personally identifiable information will not be used. School and district administrators will never have access to the individual responses and they will never be told who participated or did not participate in the research study. Any report from the information collected will be in summary form and will not identify individuals or use personal identifying information.

If you have any questions or concerns about this interview, you may contact the EDENS Lab Research Team, at edenslab@berkeley.edu. If you have any questions or concerns about your rights and treatment as a research subject, you may contact the office of UC Berkeley's Committee for the Protection of Human Subjects, at 510-642-7461 or subjects@berkeley.edu.

Teacher Interview Items

{START RECORDING}

Background

1. What was school like for you when you were growing up?
    a. Can you recall any memorable teachers? What were they like?

2. What was your path to becoming a teacher?

3. What is your daily life like as a teacher?

Prekindergarten School Context

4. How would you describe the *values* or *culture* at your school?

5. How does the *school leadership* support teachers?
    a. Is this effective, and how so?

6. How does the *district leadership* support teachers?
    a. Is this effective, and how so?

Community Context

7. How would you describe the community that your school is located in?
    a. What are the concerns and issues that are important to families in this community?

Children & Families

8. Think about your experiences *before COVID-19* for this next question: Can you describe a situation when parents/caregivers were called to pick up their child early from pre-K?
    a. Who made the call?
    b. What are the reasons children might go home early?
    c. How long will children stay home?

Challenging Behaviors

9. What are your expectations for prekindergarten children's behavior?

10. Think about a *specific moment* with a child that was especially challenging.
    a. What happened?
    b. What were your concerns?
    c. Was the family involved?
    d. Was the school leader/administrator involved?
    e. How was the situation resolved?
    f. Did you feel supported?
    g. Was this process effective?

11. How do current school policies impact the way you manage children's challenging behaviors?
    a. Is there a policy in place for managing challenging behaviors in your virtual classroom?

12. What do you think are the *root causes* of children's challenging behaviors?

13. What are the most effective ways to manage children's challenging behaviors?

14. What additional supports could the *school* or *district* provide that would reduce children's challenging behaviors?

The Future

15. What do you think the future holds for the children at your school? What are your hopes and wishes?

16. What do you think the future holds for the community? What are your hopes and wishes?

17. What do you think the future holds for you? What are your hopes and wishes?

Conclusion

18. Thank you so much for speaking with me and sharing your important experiences, perspectives, and hopes. I have asked you a lot of questions, so now I'd like to ask if you have any questions for me? Are there any topics that you would like to go back to?

Reminder: The $50 Amazon gift card will be sent via email from edenslab@berkeley.edu within 2 weeks of the interview

{STOP RECORDING}

Interview Data Audit Trail

Category	Activity (Date)	Notes	Location
Design	Determine research problem and review relevant literature		
Design	Develop research framework within research-practice partnership		
Design	Interview protocol development (interview schedules, email templates, procedure) Prepare to conduct interviews using Zoom and enable Zoom's recording and transcription feature		
Design	Design survey to recruit participants, record informed consent, schedule interview appointment, and collect demographic information		
IRB	Obtain CPHS approval for amendment to Protocol ID 2017-05-9921 (12/15/2020)	Interview procedure, draft materials, etc.	
Pilot recruitment	Distribute recruitment email to the population inviting participation and interview scheduling (late December 2020)		
Early-January interviews	Conduct 3 interviews (January 4-5, 2021)	Additional interviews were scheduled but due to IRB and a change in Zoom	

Category	Activity (Date)	Notes	Location
		integration with UC Berkeley's Kaltura system, subsequent interviews were canceled	
Design	Revise interview schedule to include items about participant's personal experiences with memorable teachers Revise consent form to explicitly state that participants will be invited to schedule interview appointment and provide demographic information Revise Zoom interview recording plan to only record audio/video and save to a project-specific folder on Box (this would eliminate Zoom feature to produce transcript)	A note on Zoom's transcription feature and reason to change transcription plan: Transcripts were produced if recordings were saved to Zoom's cloud feature. This was the original procedure for the interview method. However, UC Berkeley established an integration with a service called Kaltura in January 2021, which would automatically copy any recording saved to Zoom's cloud and also save it to Kaltura. The research team elected not to use Zoom transcription for subsequent interviews	
IRB	Obtain CPHS approval for Protocol ID 2017-05-9921 (01/07/2021)	Amendment to interview consent form (explicit reference to demographic information) and to procedure for recording and storage (Zoom/Box)	
Study recruitment	Recruit interview participants (January 2021)	Recruitment excluded the 3 participants in early-January interviews	Interview tracking: /Users/britasmacbookair/Box/[redacted name] –

Category	Activity (Date)	Notes	Location
		The interview tracking spreadsheet (Google Sheets) is stored in a secure project-specific folder on Box	Interviews/Interview Tracking.gsheet
Sample	Sample selection	The population included 190 (-3 early-January participants) who were preschool professionals based on a roster provided by the school district administrative partner This is the same population from which the sample was derived for the quantitative strand The roster is stored in a secure project-specific folder on Box	Roster: /Users/britasmacbookair/Box/[redacted name] - Interviews/Teacher, Staff, and School Leaders Recruitment List
IRB	Informed consent was obtained from all participants	Informed consent is recorded for the study sample Informed "re-consent" is recorded for the early-January sample to include demographic data	Informed consent for study sample: /Users/britasmacbookair/Box/[redacted name] - Interviews/Interview Scheduler - Data & Qualtrics Survey Informed consent for early-January sample: /Users/britasmacbookair/Box/[redacted name] - Interviews/Interview Scheduler - Data & Qualtrics Survey Informed "re-consent" for early-January sample to include demographic

Category	Activity (Date)	Notes	Location
			data: /Users/britasmacbookair/Box/[redacted name] - Interviews/Interview Scheduler - Data & Qualtrics Survey/
Data collection	Conduct interviews (January – February 2021)		
Data management	Rename raw audio files using participant ID's; copy raw audio files	The key linking participant ID's and participant information is stored in a secure project-specific folder on Box	Key: /Users/britasmacbookair/Box/[redacted name] - Interviews/Teacher, Staff, and School Leaders Recruitment List Raw audio files: /Users/britasmacbookair/Box/[redacted name] - Interviews/Raw Audio Files Copied raw audio files: /Users/britasmacbookair/Box/[redacted name] - Interviews/Raw Audio Files
Data management	Delete all video files, exclusively retain raw audio files		
IRB	Obtain CPHS approval for Protocol ID 2017-05-9921 (09/20/2021)	Amendment to describe interview transcription process using transcription service (Rev) and plan for protecting participant	

Category	Activity (Date)	Notes	Location
		confidentiality and privacy	
Data management	Transcription of audio files	Send/receive from Rev	
Data management	Raw transcript storage	Raw transcripts (original files and copied files)	Raw transcripts: /Users/britasmacbookair/Box/[redacted name] - Interviews/`Transcripts/Raw Transcripts  Copies of raw transcripts: /Users/britasmacbookair/Box/[redacted name] - Interviews/`Transcripts/Backup Copy - Raw Transcripts
Data management	Transcript cleaning: listen to audio files while reading copies of raw transcripts Clean to remove identifying information and any errors that occurred during transcription Format (Garamond, size 12) and add title heading at top of each transcript containing the following information: participant ID, interviewer, date, and participant type	Redact identifying information (person, location, institution, time, and other identifiers, e.g., [name redacted] or [school district name redacted]) Ensure spelling and punctuation is accurate (e.g., they're/their; commas, quotation marks)	
Data management	Store clean transcripts Make copies of clean transcripts		Clean transcripts: /Users/britasmacbookair/Box/[redacted name] -

Category	Activity (Date)	Notes	Location
			Interviews/`Transcripts/Clean Transcripts  Copy 1 of clean transcripts: /Users/britasmacbookair/Box/[redacted name] - Interviews/`Transcripts/Backup Copy - Clean Transcripts Copy 2 of clean transcripts: /Users/britasmacbookair/Box/BB's in a Pod/Dissertation/Qualitative Data Analysis/Dataset Copy 2
Analysis	Develop initial code structure (with respect to dissertation research questions) using deductive and inductive (integrated) approach		Initial code structure: Qualitative Data_Interviews_Bookser Dissertation_Initial Code Structure
Analysis	Upload clean early-January transcripts to Dedoose		
Analysis	Pilot code structure on early set of transcripts in Dedoose		
Analysis	Revise code structure		Revised code structure: /Users/britasmacbookair/Box/BB's in a Pod/Dissertation/Qualitative Data Analysis/Code Structure/Qualitative Data_Interviews_Bookser

Category	Activity (Date)	Notes	Location
			Dissertation_Revised Code Structure
Analysis	Re-code early transcripts using revised code structure in Dedoose; repeat until no new codes emerge; determine final code structure		Final code structure: /Users/britasmacbookair/Box/BB's in a Pod/Dissertation/Qualitative Data Analysis/Code Structure/Qualitative Data_Interviews_Bookser Dissertation_Final Code Structure
Analysis	Upload copies of clean dataset of interview transcripts (*N* = 24) to Dedoose Apply final code structure to interview dataset		
Analysis	Save spreadsheets of results according to themes		
Interpretation	Synthesize resulting themes relative to results from analysis of quantitative data derived from the survey		Results: /Users/britasmacbookair/Library/Mobile Documents/com~apple~CloudDocs/Desktop/BB/Professional/Berkeley/Projects/`` DISSERTATION/Dedoose Output Copy of synthesized results: /Users/britasmacbookair/Box/BB's in a Pod/Dissertation/Qualitative Data Analysis/Results Copy

Interview Data Code Structure

Code	Subcode	Definition
Expectations This parent code captures preschool professionals' descriptions of their expectations for child behaviors, particularly in reference to their reasoning about why expectations are held	Personal	This child code captures reasoning for expectations about child behaviors that are grounded in personal upbringing, perspective, and/or culture
	School readiness	This child code captures expectations for child behaviors that are grounded in preparing children to be "school ready" (e.g., classroom norms or teaching goals)
	Safety	This child code captures expectations for child behavior that are grounded in concerns for the safety of child, self, and/or others
Child Context This parent code captures preschool professionals' perspectives on children's contexts that shape behaviors, functioning, and/or presentation in the classroom	Developmental	This child code captures descriptions of the context of child behavior within a developmental continuum or framework
	Disordered	This child code captures descriptions of the context of child behavior within a disordered framework (e.g., disability, atypical)
	Disruptive	This child code captures descriptions of the context of child behavior within a framework of willful disruption (e.g., auditory, physical)
	Trauma/ACEs	This child code captures descriptions of the context of child behavior within a trauma-informed perspective or with regard to adverse childhood experiences (ACEs)
	Unknown	This child code captures descriptions of the context of child behavior wherein the source of the child's presentation/functioning is unknown, untheorized
Family Context This parent code captures preschool professionals' perspectives on contexts	Home-school connection	This child code captures the alignment (or lack of alignment) between children's home and school contexts
	Culture	This child code captures descriptions of the salience of cultural context as a way of understanding a child/family

Code	Subcode	Definition
of children's family and/or home	Parenting/ caregiving	This child code captures descriptions of the nature of parenting or caregiving
	Resources	This child code captures preschool professionals' descriptions of family resources as a way of understanding children/families
Classroom/School Context This parent code captures preschool professionals' perspectives on their classroom and/or school context that influence their work with children and/or families	Distance learning	This child code captures the features of the distance learning classroom or school context in relation to child behaviors
	Resources	This child code captures the features of resources within the classroom or school context (e.g., leadership, teamwork, professional development trainings, material support)
	Policy	This child code captures rules and guidance in relation to child behaviors (e.g., from school, district, state levels)
Inclusion This parent code captures preschool professionals' descriptions of inclusive measures taken to retain child in classroom		This parent code captures preschool professionals' descriptions of inclusive measures taken to retain child in classroom
Exclusionary Discipline This parent code captures preschool professionals' descriptions of "typical" exclusionary discipline (e.g., suspension or expulsion) mechanisms		This parent code captures preschool professionals' descriptions of "typical" exclusionary discipline (e.g., suspension or expulsion) mechanisms
Extra-Exclusion This parent code captures preschool professionals' descriptions of "extra-	Early release	This child code captures mechanisms that involve sending the child out-of-school before the end of the school day
	In-school	This child code captures mechanisms that involve sending the child to a different environment within the school

Code	Subcode	Definition
exclusionary" (e.g., non-suspension/expulsion) mechanisms	Disenrollment	This child code captures mechanisms that involve a child's disenrollment from the preschool program (e.g., change in eligibility, family choice)
	Referral	This child code captures mechanisms that involve a child's referral for services or assessment (e.g., developmental, disorder)
	Virtual	This child code captures mechanisms in a virtual classroom that involve features to mitigate child behaviors (e.g., breakout rooms, mute)

Center for the Protection of Human Subjects/Office for the Protection of Human Subjects: Institutional Review Board Approval Letters

1. Approval Letter for Protocol for Survey Research:

Berkeley
UNIVERSITY OF CALIFORNIA
Committee for Protection of Human Subjects (CPHS)
Office for Protection of Human Subjects (OPHS)

1608 Fourth Street, Suite 220
Berkeley, CA 94710-5940
510 642-7461
ophs@berkeley.edu
cphs.berkeley.edu
FWA# 00006252

NOTICE OF APPROVAL FOR HUMAN RESEARCH

DATE:	*July 21, 2020*
TO:	Jason Okonofua Sonya GRIFFIN, Campus Shared Services
CPHS PROTOCOL NUMBER:	*2017-04-9855*
CPHS PROTOCOL TITLE:	*Classroom Discipline Surveys*
FUNDING SOURCE(S):	*SPO ID# 042589-001 , SPO ID# 047758-001 , Funding Type# Campus Funding, Funding Type# Campus Funding*

A(n) *amendment* application was submitted for the above-referenced protocol. The Committee for Protection of Human Subjects (CPHS) has reviewed and approved the application on an expedited basis, under Category *7* of the federal regulations.

Effective Date: *July 21, 2020*

Expiration Date: *May 18, 2027*

Continuation/Renewal: Applications for continuation review should be submitted no later than 6 weeks prior to the expiration date of the current approval. *Note: It is the responsibility of the Principal Investigator to submit for renewed approval in a timely manner. If approval expires, all research activity (including data analysis) must cease until re-approval from CPHS has been received.* See Renew (Continue) an Approved Protocol.

Amendments/Modifications: Any change in the design, conduct, or key personnel of this research must be approved by the CPHS ***prior*** to implementation. For more information, see Amend/Modify an Approved Protocol.

For protocols that have been granted approval for more than one year: Certain modifications that increase the level of risk or add FDA oversight may require a continuing review application to be submitted and approved in order for the protocol to continue. If one or more of these changes occur, a Continuing Review application must be submitted and approved in order for the protocol to continue.

Unanticipated Problems and Adverse Events: If any study subject experiences an unanticipated problem involving risks to subjects or others, and/or a serious adverse event, the CPHS must be informed *promptly.* For more information on definitions and reporting requirements related to this topic, see Adverse Event and Unanticipated Problem Reporting.

This approval is issued under University of California, Berkeley Federalwide Assurance #00006252.

If you have any questions about this matter, please contact the OPHS staff at 642-7461 or email ophs@berkeley.edu .

Sincerely,

Committee for Protection of Human Subjects (CPHS)

UC Berkeley

2. Approval Letter for Protocol for Interview Research:

Berkeley
UNIVERSITY OF CALIFORNIA
Committee for Protection of Human Subjects (CPHS)
Office for Protection of Human Subjects (OPHS)

1608 Fourth Street, Suite 220
Berkeley, CA 94710-5940
510 642-7461
ophs@berkeley.edu
cphs.berkeley.edu
FWA# 00006252

NOTICE OF APPROVAL FOR HUMAN RESEARCH

DATE:	*December 15, 2020*
TO:	Jason Okonofua Amanda Perez-Ceballos, Psychology, Michael Ruiz, Psychology, Gold Okafor
CPHS PROTOCOL NUMBER:	*2017-05-9921*
CPHS PROTOCOL TITLE:	*Perspectives Program*
FUNDING SOURCE(S):	*SPO ID# 042589-001 , SPO ID# 20192592 , SPO ID# 043516-001 , SPO ID# 046801-001*

A(n) *amendment* application was submitted for the above-referenced protocol. The Committee for Protection of Human Subjects (CPHS) has reviewed and approved the application on an expedited basis, under Category *4,5,7* of the federal regulations.

Effective Date: *December 15, 2020*

Expiration Date: *August 24, 2027*

Continuation/Renewal: Applications for continuation review should be submitted no later than 6 weeks prior to the expiration date of the current approval. *Note: It is the responsibility of the Principal Investigator to submit for renewed approval in a timely manner. If approval expires, all research activity (including data analysis) must cease until re-approval from CPHS has been received.* See Renew (Continue) an Approved Protocol.

Amendments/Modifications: Any change in the design, conduct, or key personnel of this research must be approved by the CPHS ***prior*** to implementation. For more information, see Amend/Modify an Approved Protocol.

For protocols that have been granted approval for more than one year: Certain modifications that increase the level of risk or add FDA oversight may require a continuing review application to be submitted and approved in order for the protocol to continue. If one or more of these changes occur, a Continuing Review application must be submitted and approved in order for the protocol to continue.

Unanticipated Problems and Adverse Events: If any study subject experiences an unanticipated problem involving risks to subjects or others, and/or a serious adverse event, the CPHS must be informed *promptly*. For more information on definitions and reporting requirements related to this topic, see Adverse Event and Unanticipated Problem Reporting.

This approval is issued under University of California, Berkeley Federalwide Assurance #00006252.

If you have any questions about this matter, please contact the OPHS staff at 642-7461 or email ophs@berkeley.edu .

Sincerely,

Committee for Protection of Human Subjects (CPHS)

UC Berkeley

3. Approval Letter for Amended Protocol for Interview Research (describing updated consent process):

Berkeley
UNIVERSITY OF CALIFORNIA
Committee for Protection of Human Subjects (CPHS)
Office for Protection of Human Subjects (OPHS)

1608 Fourth Street, Suite 220
Berkeley, CA 94710-5940
510 642-7461
ophs@berkeley.edu
cphs.berkeley.edu
FWA# 00006252

NOTICE OF APPROVAL FOR HUMAN RESEARCH

DATE:	*January 08, 2021*
TO:	Jason Okonofua Amanda Perez-Ceballos, Psychology, Michael Ruiz, Psychology, Gold Okafor
CPHS PROTOCOL NUMBER:	*2017-05-9921*
CPHS PROTOCOL TITLE:	*Perspectives Program*
FUNDING SOURCE(S):	*SPO ID# 042589-001 , SPO ID# 20192592 , SPO ID# 043516-001 , SPO ID# 046801-001*

A(n) *amendment* application was submitted for the above-referenced protocol. The Committee for Protection of Human Subjects (CPHS) has reviewed and approved the application on an expedited basis, under Category *4,5,7* of the federal regulations.

Effective Date: *January 07, 2021*

Expiration Date: *August 24, 2027*

Continuation/Renewal: Applications for continuation review should be submitted no later than 6 weeks prior to the expiration date of the current approval. *Note: It is the responsibility of the Principal Investigator to submit for renewed approval in a timely manner. If approval expires, all research activity (including data analysis) must cease until re-approval from CPHS has been received.* See Renew (Continue) an Approved Protocol.

Amendments/Modifications: Any change in the design, conduct, or key personnel of this research must be approved by the CPHS ***prior*** to implementation. For more information, see Amend/Modify an Approved Protocol.

For protocols that have been granted approval for more than one year: Certain modifications that increase the level of risk or add FDA oversight may require a continuing review application to be submitted and approved in order for the protocol to continue. If one or more of these changes occur, a Continuing Review application must be submitted and approved in order for the protocol to continue.

Unanticipated Problems and Adverse Events: If any study subject experiences an unanticipated problem involving risks to subjects or others, and/or a serious adverse event, the CPHS must be informed *promptly.* For more information on definitions and reporting requirements related to this topic, see Adverse Event and Unanticipated Problem Reporting.

This approval is issued under University of California, Berkeley Federalwide Assurance #00006252.

If you have any questions about this matter, please contact the OPHS staff at 642-7461 or email ophs@berkeley.edu .

Sincerely,

Committee for Protection of Human Subjects (CPHS)

UC Berkeley

4. Approval Letter for Amended Protocol for Interview Research (describing transcription process):

Berkeley
UNIVERSITY OF CALIFORNIA
Committee for Protection of Human Subjects (CPHS)
Office for Protection of Human Subjects (OPHS)

1608 Fourth Street, Suite 220
Berkeley, CA 94710-5940
510 642-7461
ophs@berkeley.edu
cphs.berkeley.edu
FWA# 00006252

NOTICE OF APPROVAL FOR HUMAN RESEARCH

DATE:	*September 20, 2021*
TO:	Jason Okonofua Amanda Perez, Psychology, Michael Ruiz, Psychology, Gold Okafor
CPHS PROTOCOL NUMBER:	*2017-05-9921*
CPHS PROTOCOL TITLE:	*Perspectives Program*
FUNDING SOURCE(S):	*SPO ID: 042589-001, SPO ID: 20192592, SPO ID: 043516-001, SPO ID: 046801-001*

A(n) *amendment* application was submitted for the above-referenced protocol. The Committee for Protection of Human Subjects (CPHS) has reviewed and approved the application on an expedited basis, under Category *4,5,7* of the federal regulations.

Effective Date: *September 20, 2021*

Expiration Date: *August 24, 2027*

Continuation/Renewal: Applications for continuation review should be submitted no later than 6 weeks prior to the expiration date of the current approval. *Note: It is the responsibility of the Principal Investigator to submit for renewed approval in a timely manner. If approval expires, all research activity (including data analysis) must cease until re-approval from CPHS has been received.* See Renew (Continue) an Approved Protocol.

Amendments/Modifications: Any change in the design, conduct, or key personnel of this research must be approved by the CPHS ***prior*** to implementation. For more information, see Amend/Modify an Approved Protocol.

For protocols that have been granted approval for more than one year: Certain modifications that increase the level of risk or add FDA oversight may require a continuing review application to be submitted and approved in order for the protocol to continue. If one or more of these changes occur, a Continuing Review application must be submitted and approved in order for the protocol to continue.

Unanticipated Problems and Adverse Events: If any study subject experiences an unanticipated problem involving risks to subjects or others, and/or a serious adverse event, the CPHS must be informed *promptly.* For more information on definitions and reporting requirements related to this topic, see Adverse Event and Unanticipated Problem Reporting.

This approval is issued under University of California, Berkeley Federalwide Assurance #00006252.

If you have any questions about this matter, please contact the OPHS staff at 642-7461 or email ophs@berkeley.edu .

Sincerely,

Committee for Protection of Human Subjects (CPHS)

UC Berkeley

Appendix C: Acronyms and Definitions

B.A.	Bachelor's of Arts
BIC	Bayesian information criterion
CAP	Center for American Progress
CCDF	Child Care Development Fund
CITI	Collaborative Institutional Training Initiative
COVID-19	Coronavirus disease 2019
COREQ	Consolidated criteria for reporting qualitative research (Tong et al., 2007)
CPHS	Center for the Protection of Human Subjects (UC Berkeley)
CRT	Critical Race Theory
ECE	Early care and education (also applies to early childhood education)
ECLS	Early Childhood Longitudinal Study
ECMHC	Early childhood mental health consultation
EFA	Exploratory factor analysis
GFSA	Gun Free Schools Act
IDEA	Individuals with Disabilities Education Act
K-12	Kindergarten-to-12th grade
KMO	Kaiser-Meyer-Olkin (measure of sampling adequacy)
LGBTQ+	Lesbian, gay, bisexual, transgender, queer +
NACW	National Association of Colored Women
NAEYC	National Association for the Education of Young Children
NANE	National Association for Nursery Education (later became NAEYC)
NIEER	National Institute for Early Education Research
NSECE	National Survey of Early Care and Education
OCR	Office for Civil Rights
PA	Principal Axis (factoring)
PERM	Preschool Expulsion Risk Measure (Gilliam & Reyes, 2018)
PWORA	Personal Responsibility and Work Opportunity Reconciliation Act
RPP	Research-practice partnership
RMSEA	Root mean square error of approximation
RMSR	Root mean squares of residuals
RQ	Research question
SCBC	State Capacity Building Center
TANF	Temporary Assistance for Needy Families
TLI	Tucker-Lewis index
WACP	Womanist anti-carceral praxis
WPA	Works Progress Administration

Appendix D: R Script

```
# # set working directory
setwd('/Users/britasmacbookair/Desktop/SS/Data/Presurvey/District')

# importing the data from csv file
mydata15 <- read.csv(file = 'silent_suspension_district_pre_survey_data_updated_deidentified EFA.csv')
# # importing the new data (removing the vars that did not fit the structure) from csv file
mydata13 <- read.csv(file = 'silent_suspension_district_pre_survey_data_updated_deidentified EFA_13vars.csv')

# add and load packages for exploratory factor analysis
library("mnormt")
library("psych")
library("nFactors")
library("GPArotation")
library("QuantPsyc")
library("graphics")
library("Amelia")
library("qgraph")

# inspect data structure
mydata15
mydata13

# This dataset is limited to 15 variables drawn from a larger dataset generated from a survey
# completed by preschool professionals from one school district (n=60). A subset of these variables were
# part of the PI's scales used in previous studies, while another subset of these variables were
# researcher-generated for the presurvey study to explore the scope of exclusionary methods.

## CLEANING ##

#convert 15 and 13 mydata vars to character (to preserve values) then to numeric
mydata15$likely_troublemaker <- as.numeric(as.character(mydata15$likely_troublemaker))
mydata15$likely_parenting <- as.numeric(as.character(mydata15$likely_parenting))
mydata15$likely_disability <- as.numeric(as.character(mydata15$likely_disability))
mydata15$likely_no_respect_teacher <- as.numeric(as.character(mydata15$likely_no_respect_teacher))
mydata15$likely_developmental_delay <- as.numeric(as.character(mydata15$likely_developmental_delay))
mydata15$likely_home_environment <- as.numeric(as.character(mydata15$likely_home_environment))
mydata15$behave_better_in_future <- as.numeric(as.character(mydata15$behave_better_in_future))
mydata15$positive_relationship_in_future <- as.numeric(as.character(mydata15$positive_relationship_in_future))
mydata15$ending_before_circle_time <- as.numeric(as.character(mydata15$ending_before_circle_time))
mydata15$recommend_repeat_a_year <- as.numeric(as.character(mydata15$recommend_repeat_a_year))
mydata15$encourage_enroll_different_program <- as.numeric(as.character(mydata15$encourage_enroll_different_program))
mydata15$distraction_learning_environment <- as.numeric(as.character(mydata15$distraction_learning_environment))
mydata15$difficulty_class_on_track <- as.numeric(as.character(mydata15$difficulty_class_on_track))
mydata15$talking_parent_improve_behavior <- as.numeric(as.character(mydata15$talking_parent_improve_behavior))
mydata15$suggest_attend_other_teacher_class <- as.numeric(as.character(mydata15$suggest_attend_other_teacher_class))

mydata13$likely_troublemaker <- as.numeric(as.character(mydata13$likely_troublemaker))
mydata13$likely_parenting <- as.numeric(as.character(mydata13$likely_parenting))
mydata13$likely_disability <- as.numeric(as.character(mydata13$likely_disability))
mydata13$likely_no_respect_teacher <- as.numeric(as.character(mydata13$likely_no_respect_teacher))
mydata13$likely_developmental_delay <- as.numeric(as.character(mydata13$likely_developmental_delay))
mydata13$likely_home_environment <- as.numeric(as.character(mydata13$likely_home_environment))
mydata13$positive_relationship_in_future <- as.numeric(as.character(mydata13$positive_relationship_in_future))
mydata13$ending_before_circle_time <- as.numeric(as.character(mydata13$ending_before_circle_time))
mydata13$recommend_repeat_a_year <- as.numeric(as.character(mydata13$recommend_repeat_a_year))
mydata13$encourage_enroll_different_program <- as.numeric(as.character(mydata13$encourage_enroll_different_program))
mydata13$distraction_learning_environment <- as.numeric(as.character(mydata13$distraction_learning_environment))
mydata13$difficulty_class_on_track <- as.numeric(as.character(mydata13$difficulty_class_on_track))
mydata13$suggest_attend_other_teacher_class <- as.numeric(as.character(mydata13$suggest_attend_other_teacher_class))

# check to ensure vars converted to numeric
sapply (mydata15, class) # this will get classes of all columns
sapply (mydata13, class) # this will get classes of all columns
```

```
## DATA SCREENING AND SUITABILITY FOR EFA ##

# summaries of key vars
summary(mydata15)
summary(mydata13)

# examine missing data for patterns using Amelia package
missmap(mydata15, xaxt = "n")
par(mar = c(6.1, 4.1, 4.1, 4.1),
   lwd = 1,
   cex.axis = 1)
axis(side = 1, labels = FALSE)
text(x = 1:length(mydata15),
    y = par("usr")[3] - 0.15,
    labels = names(newdata15),
    xpd = NA,
    srt = 35,
    adj = 0.965,
    cex = 0.65)

# omit missing data (NA) and create new dataset - newdata
newdata15 <- na.omit(mydata15)
newdata13 <- na.omit(mydata13)

# describe the data
describe(newdata15)
describe(newdata13)

# determine complete cases (15 vars = 48, 13 vars = 49 -> 82% complete)
sum(complete.cases(newdata15))
sum(complete.cases(newdata13))

# assess multivariate normality using Mardia's (1970) test in QuantPsyc package
mult.norm(mydata15)

mult.norm(newdata15)
mult.norm(newdata13)
# nonnormality is notable

# assess univariate outliers using a boxplot - thanks to Tender Is The Byte for the code
# and explation for how to do this custom graph! https://www.tenderisthebyte.com/blog/2019/04/25/rotating-axis-labels-in-r/
boxplot(newdata15, boxfill="grey", xaxt = "n", whiscol="black", pch=8, outcol="black")
par(mar = c(6.1, 4.1, 4.1, 4.1),
   lwd = 1,
   cex.axis = 1)
axis(side = 1, labels = FALSE)
text(x = 1:length(newdata15),
    y = par("usr")[3] - 0.15,
    labels = names(newdata15),
    xpd = NA,
    srt = 35,
    adj = 0.965,
    cex = 0.65)

# assess multivariate outliers using psych package (D^2)
out = outlier(newdata15)
outq = outlier(newdata15, bad=5, plot=T, na.rm=T, bg=c("red"), pch=20, ylab="D2", cex=.75, ylim=c(0, 50))
plot(out)
plot(outq)
# display D2 values for every case if desired:
print(out, digits=3)
print(outq, digits=3)

# is EFA appropriate?! (see Watkins (2021) p. 59)
# create corr matrix from raw data
```

```
rnewdata15 = cor(newdata15)
# compute number of coeff. ≥ .30 'off-diagonal,' suggesting enough covariance to justify conducting EFA
BigR=sum(rnewdata15 >= abs(.30) & rnewdata15 < abs(1.0), na.rm=T) / 2
print(BigR)
# total number of off-diagonal elements in the data matrix
totR=length(newdata15)*(length(newdata15)-1)/2
print(totR)
# percent of off-diagonal elements > .05 in data matrix
print((BigR/totR)*100)
# the determinant of a full correlation matrix was computed to assess likelihood
# of multicollinearity
det(cor(newdata15))
# yay! this number is lower than .00001, indicating that multicoll. is probably not an issue

# thanks to Smyth & Johnson's excellent resource on this method
# see: https://www.uwo.ca/fhs/tc/labs/10.FactorAnalysis.pdf

# conduct exploratory factor analysis

# assessing 'factorability' of data
# (1) Bartlett's test of sphericity
# (2) Kaiser-Meyer-Olkin measure of sampling adequacy

cortest.bartlett(newdata15)
cortest.bartlett(newdata13)
# 15 var: Bartlett's test of sphericity returns R was not square, finding R
# from output: chi-square(df = 105) = 491.788, p < .001
# 13 var: chi-square(78) = 484.667, p < .001

KMO(newdata15)
KMO(newdata13)
# 15 var: the Kaiser-Meyer-Olkin measure of sampling adequacy minimum
# acceptable value is 0.5 overall; this test returned 0.67=0.86 for newdata
# overall MSA (measure of sampling adequacy) = 0.78; Gilliam and Reyes (2018) say
# that results > 0.80 are "acceptable," and this overall score is approaching 0.80
# most authors recommend 0.6 before undertaking factor analysis
# 13 var: overall MSA is 0.79; MSA for each item = 0.68-0.85

# scree plot
scree(newdata15)
scree(newdata13)
# support that there are 2 factors in the dataset and 3 components

# parallel analysis - "The parallel factors technique compares the observed eigen
# values of a cor- relation matrix with those from random data." (Revelle, 2022)
fa.parallel(newdata15)
fa.parallel(newdata13)
# suggests number of factors = 2, number of components = 1
# parallel analysis confirms the factor structure indicated by the scree plot

# --> EMPIRICAL GUIDELINES SUGGEST 2 FACTORS

# determine whether to use common factor analysis (aka principal axis factoring)
# or principal components analysis:
# --> according to Smyth & Johnson: "In a very broad sense, "common factor" analysis
# (or "principal axis factoring") is used when we want to identify the latent
# variables that are underlying a set of variables, while "principal components"
# analysis is used to reduce a set of variables to a smaller set of factors (i.e.,
# the "principal components" of the data)."
# thanks to Smyth & Johnson's excellent resource on this method
# see: https://www.uwo.ca/fhs/tc/labs/10.FactorAnalysis.pdf



# PRELIMINARY #
```

```
# 15 vars
pa2.out15 <- fa(newdata15, nfactors = 2,
          fm="pa",
          max.iter = 100, rotate = "oblimin")

fa.diagram(pa2.out15)
print(pa2.out15, digits=3, sort=TRUE)

# COMPARE WITHOUT 2 PROBLEMATIC VARS
# 13 vars
pa2.out13 <- fa(newdata13, nfactors = 2,
          fm="pa",
          max.iter = 100, rotate = "oblimin")
fa.diagram(pa2.out13)
print(pa2.out13, digits=3, sort=TRUE)

### NOTE ###
# preliminary analyses supported removing two variables - "behave better in future" and
# "talking parent improve behavior" from the analysis - reasons described in dissertation.
# all subsequent models fit and considered for the 'final' model use the 13-variable dataset



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# # !!!! !!!! TIME TO DO SOME MODELING !!!! !!!! !!!! !!!! # # # # # # # # # # # # # # #
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# rotation - helps understand simple structure and interpretability

############## 2 MODELS FOR FACTOR EXTRACTION ###############

#### MODEL 1: PA FACTORING (TWO FACTORS) USING OBLIMIN ROTATION
pa2.out13 <- fa(newdata13, nfactors = 2,
          fm="pa",
          max.iter = 100, rotate = "oblimin")
fa.diagram(pa2.out13)
print(pa2.out13, digits=3, sort=TRUE)


#### MODEL 2: PA FACTORING (THREE FACTORS) USING OBLIMIN ROTATION
pa3.out13 <- fa(newdata13, nfactors = 3,
          fm="pa",
          max.iter = 100, rotate = "oblimin")
fa.diagram(pa3.out13)
print(pa3.out13, digits=3, sort=TRUE)

# off-diag. residuals for 3 factor
resd3=residuals (pa3.out13, diag=FALSE, na.rm=TRUE)
print(resd3)

# structure matrix
print(sort=TRUE, digits=3, cut=0, pa3.out13$Structure)

# interesting, parenting factor loads wiht a pattern coefficient of .7
# onto its own underlying factor, while the other two factors are the same
# this shows evidence of over-factoring because the third factor has a "singlet"
# salient loading (likely_parenting), indicating this factor is weak
# thus threatening likelihood of replicability. This disqualifies the 3-factor
# model from further consideration

# communalities
pa2.out13$communality
pa3.out13$communality
```

```
# eigenvalues
pa2.out13$e.values
#pa3.out13$e.values


# % variance accounted for:
100*pa2.out13$e.values/length(pa2.out13$e.values)
#100*pa3.out13$e.values/length(pa3.out13$e.values)


# for eigenvalues from the ROTATED solution, ask for values:
pa2.out13$values
#pa3.out13$values


# for % variance accounted for by the ROTATED solution, use eigenvalues stored in
# values, not e.values:
100*pa2.out13$values/length(pa2.out13$values)
#100*pa3.out13$values/length(pa3.out13$values)


# factor loading matrix showing factor loadings for each variable, after they
# have been rotated to “simple structure”
print(pa2.out13$loadings, cutoff=0, digits=3, sort=TRUE)
#print(pa3.out13$loadings, cutoff=0, digits=3, sort=TRUE)


# structure matrix - this is just the pattern matrix multiplied
# by the factor intercorrelation matrix --> these values represent the
# correlations between the variables and the factors - which may be more intuitive
# to interpret.
print(pa2.out13$Structure, cutoff=0, digits=3, sort=TRUE)
#print(pa3.out13$Structure, cutoff=0, digits=3, sort=TRUE)


##############################################
##############################################
## EVALUATE MODEL FIT  ######################################
##############################################
##############################################

# off-diag. residuals for 2 factor
resd2=residuals (pa2.out13, diag=FALSE, na.rm=TRUE)
print(resd2)

# scales for each factor and alpha reliability
# --> see script factor_alphas.R
# --> this script also includes bootstrapped confidence intervals for alpha coeff.

    # set working directory
    setwd(‘/Users/britasmacbookair/Desktop/SS/Data/Presurvey/District’)

    # importing the data from csv file
    f1 <- read.csv(file = ‘silent_suspension_district_pre_survey_data_updated_deidentified_EFA_factor1.csv’)
    # # importing the new data (removing the vars that did not fit the structure) from csv file
    f2 <- read.csv(file = ‘silent_suspension_district_pre_survey_data_updated_deidentified_EFA_factor2.csv’)

    library(“psych”)
    library(“MBESS”)

    ## CLEANING ##

    # factor 1 - convert vars
    f1$encourage_enroll_different_program <- as.numeric(as.character(f1$encourage_enroll_different_program))
    f1$likely_no_respect_teacher <- as.numeric(as.character(f1$likely_no_respect_teacher))
    f1$suggest_attend_other_teacher_class <- as.numeric(as.character(f1$suggest_attend_other_teacher_class))
```

```
f1$likely_troublemaker <- as.numeric(as.character(f1$likely_troublemaker))
f1$recommend_repeat_a_year <- as.numeric(as.character(f1$recommend_repeat_a_year))
f1$likely_parenting <- as.numeric(as.character(f1$likely_parenting))

# factor 2 - convert vars
f2$likely_disability <- as.numeric(as.character(f2$likely_disability))
f2$likely_developmental_delay <- as.numeric(as.character(f2$likely_developmental_delay))
f2$likely_home_environment <- as.numeric(as.character(f2$likely_home_environment))
f2$positive_relationship_in_future <- as.numeric(as.character(f2$positive_relationship_in_future))
f2$ending_before_circle_time <- as.numeric(as.character(f2$ending_before_circle_time))
f2$distraction_learning_environment <- as.numeric(as.character(f2$distraction_learning_environment))
f2$difficulty_class_on_track <- as.numeric(as.character(f2$difficulty_class_on_track))

# check to ensure vars converted to numeric
sapply (f1, class) # this will get classes of all columns
sapply (f2, class) # this will get classes of all columns

# summaries of key vars
summary(f1)
summary(f2)

# omit missing data (NA) and create new dataset - newdata
newf1 <- na.omit(f1)
newf2 <- na.omit(f2)

# describe the data
describe(newf1)
describe(newf2)

# compute alphas for each factor
alpha(newf1)
alpha(newf2)

# structure matrix
print(sort=TRUE, digits=3, cut=0, pa2.out13$Structure)



# See Revelle's (2022) outstanding CRAN guide on the 'psych' package for factor analysis
# https://cran.r-project.org/web/packages/psychTools/vignettes/factor.pdf

#plot a pretty "heat map" correlation matrix to visually assess where variables cluster into factors
cor.plot(newdata15, cex.axis = .66)

# fancy correlation matrix
plot(newdata15)

pairs.panels(newdata15,pch='.')
pairs.panels(mydata15, pch='.')
# "Scatter Plot Matrices (SPLOMS) are very useful for describing the data. The pairs.panels function,
# adapted from the help menu for the pairs function produces xy scatter plots of each pair of variables
# below the diagonal, shows the histogram of each variable on the diagonal, and shows the lowess locally
# fit regression line as well. An ellipse around the mean with the axis length reflecting one standard
# deviation of the x and y variables is also drawn. The x axis in each scatter plot represents the column
# variable, the y axis the row variable (Figure 1). When plotting many subjects, it is both faster and
# cleaner to set the plot character (pch) to be '.' "
```