
WHEN SCHOOL DOESN'T START AT AGE 5

Elementary Principal Leadership of Pre-K Programs in Schools

ABSTRACT

Today, about 50% of US elementary schools have a pre-kindergarten (pre-K) program located in the building. This article systematically reviews the empirical literature on principal leadership of pre-K programs in elementary schools. We collected studies using academic database searches, scanning reference lists of relevant articles, and consulting with experts in the field. Our efforts yielded 16 sources for review. Using thematic synthesis, we analyzed the data to reveal key findings related to principal leadership of pre-K programs. There has been limited scholarly attention to principal leadership in the pre-K context. Prominent themes in the existing literature on the topic include (1) a common framing of the “colliding” worlds of pre-K and K–12 education, (2) principals’ beliefs about pre-K, (3) the scope of principal responsibility for pre-K programs, and (4) principal preparation to lead pre-K programs. We unearthed limited evidence on the topic but charted a path for future research on pre-K principal leadership. Future research should focus on the design of principal capacity building efforts that have direct, positive impacts for students.

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As states and districts expand early childhood education programs, particularly connected to local elementary schools, it is imperative that policies are developed at the federal, state and district levels to create systems that recognize and build the capacity of elementary principal leadership within a Pre-K-3 continuum.

—National Association of Elementary School Principals (2014)

ACCORDING to a recent national survey, approximately 50% of elementary school principals report having a pre-kindergarten (pre-K) program in their building (Fuller et al., 2018). The Biden administration’s American Families Plan, which would provide universal pre-K for 3- and 4-year-olds in the United States, would likely increase the prevalence of pre-K programs in elementary schools (American Families Plan, n.d.). Effective pre-K programs can increase school readiness and later academic, behavioral, and social outcomes, particularly among students from traditionally underserved groups (Barnett et al., 2018; Gray-Lobe et al., 2021; Phillips et al., 2017; Wong et al., 2008). At the same time, a wealth of research focused on K-12 education has demonstrated that principals are among the most important in-school factors influencing student achievement (e.g., Dhuey & Smith, 2018; Grissom et al., 2015; Leithwood et al., 2004). It is at the nexus of these topics—pre-K and principals—that organizations like the National Association of Elementary School Principals (NAESP) have become involved, issuing calls for building the capacity of principals to lead pre-K programs, like the one featured at the beginning of this article. Writing in the *Journal of School Leadership*, Garrity et al. (2021, p. 2) noted that “successful school principals establish a culture within their schools that values the Pre-K-3 continuum, develops relationships with families and other early education providers, and ensures developmentally appropriate instructional strategies.”

With considerable attention by professional and advocacy organizations focused on the topic (e.g., Kauerz et al., 2021; Lieberman & Bornfreund, 2019; NAESP, 2014; Takanishi, 2016), we work here to collect and share what is known about principal leadership of pre-K programs located in elementary school buildings. Our purpose is to compile and synthesize published, peer-reviewed empirical research findings in one place to aid in the development of systems to build the capacity of pre-K principal leadership: What does the research reveal about best practice? How are principals being prepared for the work? How does principal effectiveness mediate early learning gains among children who attend pre-K in their schools?

To answer these questions, we designed a systematic review of the published peer-reviewed empirical literature on principal leadership of pre-K programs located in elementary school buildings in the US context, hereafter referred to as pre-K principal leadership. Using a combination of systematic database searches, surveys to scholars in the field, and identification of sources through snowball reference list checks, our search yielded a final set of 16 sources included in the review. As we will show, the primary finding from the review is that there has been limited scholarly attention to principal leadership in the pre-K context, and little of the existing literature has been executed in a way that points decidedly toward the design of capacity building efforts that have direct and positive impacts for students. Analysis of the limited, existing literature revealed four central themes: (1) common framing of the “colliding” worlds of

pre-K and K–12 education, (2) principal beliefs about pre-K, (3) the scope of principal responsibility for pre-K programs, and (4) principal preparation to lead pre-K programs.

We begin by reviewing the background literature that motivates our inquiry into this topic. Next, we detail our methodological approach for the systematic review, including search and analytic procedures. We then present our findings from the review of the literature. In light of the findings, we chart a research agenda for future research on the topic of pre-K principal leadership.

Background

Pre-K Effectiveness and Fadeout

A wealth of research suggests that effective pre-K programs have the potential to boost children's readiness for school (Barnett et al., 2018; Yoshikawa et al., 2013), ameliorate early achievement gaps (Reardon & Portilla, 2016), and generate a host of positive later life outcomes, such as lower incarceration rates and improved health (Heckman, 2006; Heckman et al., 2010). Some of the most dramatic findings of pre-K's potential impacts come from a series of small experiments of highly intensive pre-K programs in the 1960s and 1970s, including the Carolina Abecedarian Project in Chapel Hill, North Carolina, and the Perry Preschool Project in Ypsilanti, Michigan (Barnett, 2011; Heckman et al., 2010; Schweinhart & Weikart, 1980). For example, at the age of 30, students who participated in the Abecedarian treatment group were 14 percentage points more likely to have graduated from high school than their peers who were in the control group (Campbell et al., 2012).

The success of these early model pre-K programs helped, in part, to spur policymakers to fund pre-K programs across the United States. According to the most recent National Institute for Early Education Research *State of Preschool Yearbook*, 45 states plus the District of Columbia provide publicly funded pre-K programs that serve 34% of 4-year-olds in the United States (Friedman-Krauss et al., 2020). Yet the translation from the small early pre-K models to large-scale, publicly funded programs has frequently yielded less positive results (Bassok & Engel, 2019; Phillips et al., 2017). Whereas some publicly funded programs, such as North Carolina's pre-K program, show sizable and persistent impacts on student outcomes, numerous other programs, most notably Tennessee's, do not (Bai et al., 2020; Lipsey et al., 2018). Especially on measures of academic achievement, scaled-up pre-K programs often generate initial positive impacts, but the impacts do not reliably persist into elementary school—a term known as *pre-K fadeout* (Bailey et al., 2017; Duncan & Magnuson, 2013). Findings from a recent meta-analysis of 67 high-quality early childhood interventions show a geometric decline of effect sizes post intervention; it finds a sizable mean effect size of 0.23 immediately following treatment, but the mean effect size drops by more than half after one year to 0.10, and it becomes statistically indistinguishable from zero after just 3 years (Bailey et al., 2017).

School-Based Pre-K and P–3 Alignment

To combat pre-K fadeout, the early childhood education (ECE) field has promoted the concept of *pre-K to third (P–3) alignment*, which describes a set of strategies that

seek to ensure coherence in the progression of educational experiences children receive as they transition from pre-K into elementary school (Little, 2020; National Research Council, 2015; Takanishi & Kauerz, 2008). By creating a seamless continuum of high-quality early education, efforts to improve P–3 alignment aim to provide students with early learning gains in pre-K that are sustained through elementary school and beyond. Recently, early education scholars have explored the extent to which school-based pre-K—that is, locating pre-K programs in elementary school buildings—may facilitate P–3 alignment (Little, 2018, 2020).

The logic behind school-based pre-K as a P–3 alignment strategy is that by bringing teachers under one roof, it will make it easier for them to collaborate and align students' educational experiences, including curricular content progressions, for example, in a coherent way across the early grades (Bogard & Takanishi, 2005). A small number of studies have examined the connection between school-based pre-K and features of P–3 alignment (Desimone et al., 2004; Garrity et al., 2021; Little, 2018, 2020; Wilinski, 2017). These studies find that while locating pre-K programs within elementary schools can help facilitate some forms of alignment (e.g., teachers coordinating instruction), adoption of collaboration and coordination strategies across grades that support P–3 alignment is not assured (Desimone et al., 2004; Wilinski, 2017). These studies have found that some pre-K programs are not incorporated authentically into the school community beyond simply “renting space” in the building. Little (2018, 2020) hypothesizes that elementary school principals play a critical role in setting the conditions necessary for engagement with pre-K programs located in their school buildings and promoting strong P–3 alignment practices. A recent case study by Garrity et al. (2021) illustrates the potential importance of principals in facilitating P–3 alignment in the context of a Professional Learning Community (PLC) committed to aligning language and literacy instruction across the early grades.

Our focus here on pre-K programs in schools is in response to the reality that approximately 50% of all public elementary schools have pre-K programs located within them (Fuller et al., 2018; Little, 2021). The broader question on the appropriateness of locating pre-K programs in elementary schools is under debate. Proponents are motivated by possibilities for advancing P–3 alignment, which we detailed in the previous paragraphs. Opponents, on the other hand, caution that pre-K programs in schools may succumb to academic and accountability pressures from the higher grades that are inconsistent with the developmentally focused pedagogical norms in early childhood (Lubeck, 1989; Sipple & McCabe, 2011; Wilson, 2008). As we will show in the Findings section, some of the studies included in our review reveal how this debate is playing out in practice.

Another layer of complexity regarding school-based pre-K is that pre-K programs are not a universal grade under the direct purview of school districts, as is the case for grades kindergarten through grade 12. In the United States, pre-K programs are provided within the context of a mixed-delivery system, wherein programs operate in a variety of different educational settings, including elementary schools, Head Start centers, community-based organizations, and private centers (Kagan & Kauerz, 2007; Little, 2020). Moreover, the programs that operate in elementary schools may be provided via Head Start, state pre-K, Title I, district pre-K, or special education, for example. This creates a complex network of different arrangements, wherein principals' formal responsibilities for pre-K classrooms in their buildings can vary. The policy complexities

surrounding school-based pre-K underpin one of our key thematic findings from the literature: principals vary in what they see as their scope of responsibility for pre-K programs.

The Critical Role of Principals

The hypothesis that principals play a critical role in setting the conditions necessary for engagement with pre-K programs located in their school buildings and promoting strong P–3 alignment practices is informed by empirical evidence about the importance of principal leadership more generally. Decades of research on school effectiveness, improvement, and reform suggest principals are among the most important in-school factors influencing student achievement (e.g., Bossert et al., 1982; Grissom et al., 2021; Leithwood et al., 2004; Robinson et al., 2008). A quick scan of the research literature on principals' work reveals why this is the case: principals set the vision, mission, and goals of a school (Leithwood et al., 2020); manage teacher talent (Goldring et al., 2015; Odden, 2011); establish relationships, culture, and climate (Burkhauser, 2017; Rochester et al., 2019); engage with external stakeholders (Prado Tuma & Spillane, 2019); and organize and monitor the school's instructional program (Hornig & Loeb, 2010; Neumerski, 2013). Principals influence how beginning teachers develop (Youngs, 2007) and whether effective teachers stay (Simon & Johnson, 2015); in so doing, they become multipliers of effective teaching and leadership practices in schools (Manna, 2015). Their influence seems especially important in high-poverty, hard-to-staff schools (Branch et al., 2012; Klar & Brewer, 2013).

A Growing Movement

These topics—pre-K effectiveness, calls for P–3 alignment, and the importance of principals—have coalesced in recent years. There is now considerable attention given to pre-K principal leadership in the policy and professional spheres.

One of the most prominent voices in this space is the NAESP, with its “Pre-K–3 Leadership” initiative. The initiative includes P–3 professional standards to guide practice as well as a leadership academy training program that aims to “provide principals and other leaders with a job-embedded, sustained, and on-going professional learning experience focused on mastering effective instructional leadership practices that are developmentally-appropriate” (NAESP, n.d.). NAESP also jointly published a book authored by Kostelnik and Grady (2009) entitled *Getting It Right from the Start: The Principal's Guide to Early Childhood Education*. Whereas NAESP is largely focused on improving principal practices vis-à-vis P–3 education, New America is wielding its influence to shape policies on the topic. They have published numerous position pieces about principal preparation for leading pre-K programs (e.g., Lieberman, 2017) and developed policy scans that document state progress (<https://www.newamerica.org/in-depth/pre-k-leaders/>). Other organizations and networks actively engaged in this area include the National P–3 Center, the Foundation for Child Development, the DREME network, and the University of Chicago Consortium on School Research.

The attention by professional and policy organizations is making its way into policy and practice. The Every Student Succeeds Act (ESSA), the 2015 revision of the Elementary and Secondary Education Act, revised language related to Title II dollars clarifying

that funds can be used for early childhood educators, including to “provide programs and activities to increase the knowledge base of teachers and principals on instruction in the early grades,” including pre-K (Bornfreund & Lieberman, 2016). In 2010, Illinois reformed its principal preparation policies to require all programs incorporate early learning into their curricula and provide candidates with internships across the pre-K to grade 12 continuum; ECE content was also added to the state’s principal licensure exam (Lieberman, 2019). By 2017, according to a report from New America, 12 states offered professional learning (such as training, mentoring, or coaching) around ECE or P–3 alignment for elementary principals (Lieberman, 2017). There are also numerous districts across the United States enacting P–3 alignment reforms that include a key focus on principal leadership; notable examples include Boston public schools (Bardige et al., 2018), Montgomery County public schools (Marietta, 2010), and DREME network districts in California (Coburn et al., 2018).

When reviewing the white papers, position pieces, and curricula in P–3 leadership preparation programs and from advocacy organizations focused on pre-K principal leadership, the justifications for improving pre-K principal leadership largely mirror that of this background section: pre-K matters and principals matter, so we should focus on principals leading pre-K programs. These resources do not cite many academic research studies focused explicitly on the nexus between pre-K and principal leadership. Furthermore, those peer-reviewed studies that are cited tend to be conceptual in nature (e.g., Kauerz, 2019; McCabe & Sipple, 2011), or do not focus specifically on principal leadership of pre-K programs in their schools (Brown & Gasko, 2012). In light of this considerable attention from policymakers, advocacy and professional organizations, and the recent policy and practice changes across the states, we sought to collect and share what is known in the published peer-reviewed empirical academic literature about pre-K principal leadership. We focus on empirical research because we are interested in revealing what studies have shown by engaging with practitioners and sharing their experiences from the field. In doing so, we document in one place the key lessons learned from the existing academic literature and draw implications for future research on the topic.

Methodology

A systematic review is a methodology for making sense of bodies of information as well as identifying gaps in current knowledge (Cooper et al., 2009; Littell et al., 2008). Using a specific and replicable approach, systematic reviews can tell us what research says overall about a topic—in this case, principal leadership of school-based pre-K programs. This form of literature review is particularly valuable for policymakers and school leaders because it considers multiple studies at once—studies that can (and do) contradict one another (Mays et al., 2005). Furthermore, systematic reviews are beneficial because they compile studies from diverse contexts and address the limited generalizability and context-dependency of singular studies (Petticrew & Roberts, 2006). Finally, reviews such as this one provide guidance to other scholars interested in the topic to ensure that future work builds upon, rather than duplicates, what is already known). Later, we detail the steps we took, following Dunkin (1996) and Petticrew and Roberts (2006), to compile the studies for the review and analyze what these studies, in the aggregate, tell us about principal leadership of school-based pre-K programs.

Data Collection

Search criteria. Consistent with Petticrew and Roberts (2006), we defined the following five inclusion criteria for sources in our review: (1) a focus on the topic of principal leadership of school-based pre-K programs, (2) an empirical study, (3) published in a peer-reviewed publication (i.e., academic journal or book), (4) set in the United States, and (5) available to us in full text. An example of a source that met our inclusion criteria is Shue et al. (2012) because it presents findings from a statewide survey of the perceptions and needs of principals in North Carolina who have pre-K classrooms on their campuses (see Table 1). An example of a source that did not meet our inclusion criteria is Cook and Coley (2019) because it focused on elementary school principal coordination with Head Start programs affiliated with the school but not located on the school campus or in the building. Another example of an article that did not meet our inclusion criteria is Halpern (2013, p. 1), which focused on the “promise, perils and practical problems” of tying ECE more closely to schooling; while this article discussed principal leadership of school-based pre-K programs, it did not rely on empirical data.

Search procedure. Our search procedure included three primary steps: (1) database search, (2) reference list check, and (3) survey of experts in the field. First, for the database search, we applied our search terms to the following three databases: Education Resources Information Center (ERIC), Academic Search Complete, and PsycINFO. These databases are comprehensive, are often used in systematic reviews of educational research topics, and were recommended by a librarian at a major research university (e.g., Ives & Castillo-Montoya, 2020; Khalifa et al., 2019). The following search terms and Boolean operators were used: (“principal” OR “leadership” OR “administration”) AND (“elementary” OR “early childhood education” OR “early grades”) AND (“pre-K” OR “preschool” OR “pre-kindergarten”). This step yielded 58 potential sources. We next reviewed the title and abstract for each of the sources and then completed a full-document review for the sources that were deemed relevant. Of the 58 original sources, we retained 14 sources. Next, we reviewed the reference lists of the sources identified in the database search to identify additional sources that may be relevant to our review. This step added two sources. Last, we emailed the authors for each of the sources identified with the reference list a description of our review project, and we asked them to share if they were aware of any additional sources on the topic. This process did not yield any additional sources, providing us with confidence in the thoroughness of our search procedure. In sum, our search procedure yielded 16 sources.

In addition to our search of the published empirical literature, we also conducted a search of the so-called fugitive or ephemeral literature—that is, research literature that exists outside of traditional peer-reviewed journals and scholarly books (Rosenthal, 1994). This is an important step in any systematic review because a publication bias toward studies with statistically significant effects can inadvertently lead reviewers to conclude that programs have larger impacts than they do (Rothstein, 2008). To conduct this search, we applied our search terms to both academic research conference proceedings and research firm websites. We included the following academic research conferences in our search: American Educational Research Association, Association for Education Finance and Policy, National Association for the Education of

Table 1. Key Source Information

Source Citation	Setting	Qualitative, Quantitative, or Mixed	Major Focus, Minor Focus, or Passing Reference?	Relevant Study Details
Brown (2009)	Large urban school district in Texas	Qualitative	Secondary focus	Instrumental qualitative case study; focus on implementation of pre-K assessment tool; sample included assessment task force members ($N = 6$), district officials ($N = 5$), principals ($N = 5$), and pre-K teachers ($N = 5$).
Brown (2010)	Large urban school district in Texas	Qualitative	Secondary focus	Instrumental qualitative case study; focus on implementation of pre-K assessment tool; sample included assessment task force members ($N = 6$), district officials ($N = 5$), principals ($N = 5$), and pre-K teachers ($N = 5$).
Brotherson et al. (2001)	Elementary schools in Iowa	Mixed	Primary focus	Mixed methods design combining focus groups and surveys; 13 focus groups were conducted with a total of 61 principals.
Cohen-Vogel et al. (2020)	Elementary schools in rural North Carolina	Qualitative	Secondary focus	Semistructured interviews in six rural counties; sample included 51 county/district administrators and principals.
Desimone et al. (2004)	Five 21C programs in Colorado, Connecticut, Kentucky, Massachusetts, and Michigan	Qualitative	Secondary focus	Three-year multisite study of the School of the Twenty-First Century; focus groups with preschool teachers ($N = 20$), kindergarten teachers ($N = 22$), and parents ($N = 53$).
Garrity et al. (2021)	California	Qualitative	Primary focus	Case study in a single elementary school. Focus on a PLC aimed at aligning instruction around literacy across the early grades. Includes principal, support staff, and pre-K, transitional kindergarten, and kindergarten teachers.

Table 1. (Continued)

Source Citation	Setting	Qualitative, Quantitative, or Mixed	Major Focus, Minor Focus, or Passing Reference?	Relevant Study Details
Graue et al. (2018)	New Jersey/Wisconsin	Qualitative	Secondary focus	Multisite comparative case study of how pre-K policy is enacted in policy development and political exchange; three case schools in each of the two states; informants included state actors, district officials, pre-K program administrators, teachers. Two elementary schools with pre-K programs were included in the study.
Graue et al. (2017)	New Jersey/Wisconsin	Qualitative	Secondary focus	Multisite comparative case study of how pre-K policy is enacted in policy development and political exchange; three case schools in each of the two states; informants included state actors, district officials, pre-K program administrators, teachers. Two elementary schools with pre-K programs were included in the study.
Little (2020)	Three counties in central North Carolina	Qualitative	Secondary focus	Exploratory qualitative study including semistructured interviews with state officials ($N = 6$), county administrators ($N = 6$), principals ($N = 9$), pre-K directors ($N = 3$), and pre-K-3 teachers ($N = 20$). Contrasts pre-K by location in either elementary school or stand-alone center.
McCormick et al. (2019)	Boston public schools	Mixed	Secondary focus	Document review and key stakeholder interviews ($N = 3$) regarding the Boston public schools (BPS) model for aligning early education; classroom observations and teacher surveys with 41 pre-K teachers and 114 kindergarten teachers.
Nicholson et al. (2018)	ECE preparation programs in California	Qualitative	Primary focus	Multiple case study focused on ECE educator preparation in California; semistructured interviews ($N = 17$) with ECE higher education faculty ($N = 3$), ECE credential faculty ($N = 4$), educational leadership faculty ($N = 6$); ECE policy professionals ($N = 2$), one ECE foundation officer, and one principal. Open-ended survey with 84 ECE educators in 18 counties in California.

Purtell et al. (2019)	Eleven school districts in Ohio	Qualitative	Passing reference	In-depth interviews with range of school-related personnel with relevance to kindergarten transition practices in Ohio. Sample included school board members ($N = 8$), superintendents ($N = 12$), principals ($N = 14$), and teachers ($N = 25$).
Ritchie and Gutmann (2013)	First School settings in North Carolina	Qualitative	Secondary reference	Book providing a comprehensive summary of the research to date on First School, a comprehensive pre-K–3rd grade educational strategy for African American, Latino, and low-income children; relevant data come from experiential reflection on lessons learned from FirstSchool leaders.
Shue et al. (2012)	School-based pre-K programs in North Carolina	Quantitative	Primary focus	Survey analysis; statewide survey of principals in North Carolina with school-based pre-K programs; sample included 163 principals; 32% response rate.
Sipple and McCabe (2011)	School districts in New York	Qualitative	Passing reference	Case studies of school districts implementing pre-K programming in New York State.
Wilinski (2017)	School district in Wisconsin	Qualitative	Secondary focus	Ethnographic case study of a pre-K program in a single district in Wisconsin; sample included three pre-K teachers representing a public school setting, a private part-day preschool setting, and a for-profit corporate childcare center.

Note.—Brown (2009) and Brown (2010) use the same data set; Graue et al. (2018) and Graue et al. (2017) use the same sample.

Young Children, Society for Research on Educational Effectiveness, Society for Research in Child Development, and the University Council for Educational Administration. We included the following research firms in our search: American Institutes for Research, Learning Policy Institute, Mathematica, RAND Corporation, RTI International, WestEd, and Westat. This search of the fugitive literature did not yield additional sources that met our criteria.

Having compiled the review database of 16 sources, we extracted key summary information about each source, including the following.

1. General information: study title, author(s), year of publication, journal/publisher
2. Research design: setting, qualitative/quantitative/mixed, research methodology
3. Findings: summary of overall results or findings, summary of results or findings focused on principal leadership of Pre-K

We provide a summary table of key source information in Table 1.

Data Analysis

Consistent with Thomas et al. (2012), we conducted a thematic synthesis to identify commonalities and differences between sources in the review database. We took an inductive approach to analyzing the data. That is, we did not apply a priori analytic frameworks to the data because of the varied nature of the literature in terms of discipline, scope, and methods used. In the words of Thomas et al. (2012, p. 193), this form of review is “systematically grounded in the studies it contains.”

We began by first extracting text from the sources relevant to the review topic into a spreadsheet. We then reviewed the relevant data and assigned codes that described the data (Saldaña, 2015). Examples of codes developed in this first phase included “Pre-K programs isolated” and “principal knowledge of early childhood education.” Next, we reviewed the list of codes to make sense of commonalities and prevalence and generated a condensed set of thematic codes. We then re-reviewed each source, applying the revised codes to the data. After organizing the data in a matrix, we described how each theme was featured in the source (if at all). Where applicable, we supported each thematic finding with quotations. With this analytic matrix completed, we were able to easily scan the 16 sources to see which themes were featured across the source data set and in what ways. Our team conducted this analysis in a collaborative fashion, meeting regularly to discuss emerging themes and evidence to support them.

Findings

Overview of Studies

Overall, the primary findings from the review is that there has been scant scholarly attention to principal leadership in the pre-K context, and that little of the existing literature has been executed in a way that points decidedly toward the design of principal capacity building efforts that have direct and positive impacts for students.

We begin our presentation of the review findings with an overview of the 16 sources (see Table 2). Fourteen of the sources were published as journal articles and two as books. Both of the books were published by Teachers College Press.¹ The 14 journal articles were published in a range of education journals, including journals focused on ECE, leadership and policy, elementary education, teacher education, and special education. Three of the articles appeared in *Early Childhood Research Quarterly*, and two appeared in the *Elementary School Journal*. No other journals featured more than one source.

All of the 16 sources were published since the year 2000, and 13 were published in the last 10 years. Nearly all of the studies included in our review employed qualitative methods ($N = 13$). Two studies used a mix of qualitative and quantitative methods and one study used only quantitative methods. As for the specific research designs used, eight were case studies, three used participant interviews, one used focus groups, one used survey data, and three used a combination of approaches (e.g., participant interviews and surveys).

When reviewing the sources, we assessed the extent to which principal leadership of pre-K programs was a primary focus, was a secondary focus, or was only given passing reference. We considered a source to have a primary focus if the overall purpose of the article was to study the connection between principals and pre-K programs located in their schools. We considered a source to have a secondary focus

Table 2. Summary of Themes Featured in Review Sources

	Themes Featured in Review Sources					
	“Colliding Worlds” of ECE and K–12	Principal Beliefs: Purposes of Pre-K	Principal Beliefs: Instruction and Content in Pre-K	Principal Scope: Isolators or Connectors	Principal Scope: Pre-K Resource Disparities	Principal Preparation for Leading Pre-K Programs
Brown (2009)	Yes	Yes	Yes	Yes	No	Yes
Brown (2010)	Yes	Yes	Yes	No	No	No
Brotherson et al. (2001)	No	No	No	No	Yes	Yes
Cohen-Vogel et al. (2020)	Yes	Yes	Yes	Yes	No	No
Desimone et al. (2004)	Yes	No	No	Yes	Yes	Yes
Garrity et al. (2021)	No	Yes	Yes	Yes	No	Yes
Graue et al. (2018)	Yes	No	Yes	No	No	No
Graue et al. (2017)	Yes	Yes	Yes	No	No	No
Little (2020)	No	Yes	Yes	Yes	Yes	Yes
McCormick et al. (2019)	No	No	No	Yes	No	Yes
Nicholson et al. (2018)	Yes	No	Yes	No	No	Yes
Purtell et al. (2019)	Yes	Yes	Yes	No	No	No
Ritchie & Gutmann (2013)	No	No	No	Yes	No	Yes
Shue et al. (2012)	No	Yes	No	Yes	No	Yes
Sipple & McCabe (2011)	Yes	No	No	No	Yes	No
Wilinski (2017)	Yes	No	No	Yes	Yes	No

if the purpose of the article was closely related to the review topic (e.g., school-based pre-K, connecting pre-K and elementary school) and included information about principal leadership of pre-K programs. For example, Desimone et al. (2004) was categorized as a secondary focus because the overall topic was on incorporating a new pre-K program within an elementary school and a subset of the study findings focused on elementary school principal leadership of pre-K. Last, we considered a source to have a passing reference if the topic of the study was related but the study had a very limited focus on principals. For example, Purtell et al. (2019) focused on transition practices that schools offer to facilitate the transition from pre-K to kindergarten; they briefly discussed that principals in schools with pre-K programs located within them helped to facilitate communication across the pre-K and kindergarten grades. Of the 15 sources in the review, four had a primary focus, nine had a secondary focus, and two had a passing reference on the topic of principal leadership of school-based pre-K programs. The overall limited number of sources revealed through our search, as well as the limited number of studies among them that focus primarily on the topic, highlights the small size of the body of evidence and the accompanying importance of establishing a research agenda moving forward.

“Colliding Worlds” of ECE and K–12 Education

Transitioning to thematic findings, our analysis revealed a common framing (10 or 15 sources), which we call the “colliding worlds” of ECE and K–12 education. Our use of the term was inspired by earlier work using the same term (McCabe & Sipple, 2011; Wilson, 2008). Sources using this framing to motivate their research followed a narrative wherein the world of ECE, which is traditionally based in developmentally appropriate practice (DAP) and is child-based, collides with the academic and standard-based system of K–12 education. In the specific case of pre-K programs located in elementary schools, this narrative suggests that pre-K programs are being located in a contested space where these tensions are pronounced and the risks of ECE being corrupted are high due to physical proximity to the K–12 system.

In describing traditional notions of ECE, Graue et al. (2018, p. 2) stated, “Early childhood educators have always danced to a slightly different tune than their elementary colleagues . . . early educators think in terms of developmental domains . . . and they are more likely to think of the curriculum as coming ‘from the child.’” This is the essence of DAP and is contrasted with a standards-based curriculum. Describing standards-based education, a second study in the sample noted, “Under this theory of action, all children attaining a specific set of knowledge and skills is the pivot upon which all decisions are to be made” (Brown, 2009, p. 204). It is in pre-K programs located in elementary schools that researchers can explore this contested space between the two worlds. For example, Brown (2009, p. 205) explains, “Researchers are beginning to publish theoretical- and empirical-based work that examines how teachers are trying to entwine their conceptions of DAP into the standards-based accountability policies.” As this quotation illustrates, the framing of colliding worlds is not a finding of the studies per se but rather an orientation to motivate research on the topic. As we will see in the following paragraphs, many of the key findings from the sources reviewed focus on this contested space—the historical differences between two worlds that are brought together when pre-K programs are located in elementary schools.

We now turn to examining themes of findings (as opposed to the previous theme related to study framing and motivation) from the studies we reviewed, including: (1) principal beliefs about pre-K, (2) scope of principal responsibilities, and (3) principal preparation for leading pre-K programs.

Principal Beliefs about Pre-K

A common theme featured in more than half of the sources in our review was a focus on principal beliefs about pre-K. Information in the sources about principal beliefs came from reports from principals themselves as well as what others (e.g., district officials, teachers) perceived principals' beliefs about pre-K to be. There were two subthemes related to principal beliefs. The first related to principal beliefs about the purposes of pre-K ($N = 7$), and the second related to principal beliefs about the appropriate nature of instructional practices and content in pre-K classrooms ($N = 8$).

Eight of the sources provided evidence on principal beliefs with respect to the purposes of pre-K. All of these studies found that principals viewed pre-K programs as tools to prepare students for kindergarten and the rigors of elementary school generally. One was a survey of 163 school-based pre-K principals in North Carolina, which revealed the majority saw pre-K programs as important vehicles to support "school readiness" (Shue et al., 2012). Summarizing findings from their case study in Wisconsin, Graue et al. (2017) noted that principals primarily saw the pre-K program as a means to boost the skills of children prior to kindergarten entry. But what does school readiness mean to principals? That is, what do principals see as the appropriate instructional practices and content in pre-K required to prepare students for school?

Nine of the studies provided evidence on what principals view as appropriate instructional practices and content in pre-K. All but one of these studies found that principals sought to increase academic content coverage in pre-K to align with academic standards in the higher grades. Brown (2009) focused intently on this topic, with an aptly named title, "Pivoting a Prekindergarten Program off the Child or the Standard?" Using an instrumental case study of the implementation of a pre-K assessment tool in a large urban district in Texas, Brown found that principals in his study expressed concerns about the academic "depth and rigor" in pre-K. The principals questioned whether the assessment tool in pre-K "gives credit for doing things that basically anybody can do" and whether the low academic expectations of the assessment would signal pre-K teachers to "teach to the minimum and not push kids forward" (p. 213). This concern about a lack of rigor in pre-K from principals was also featured in the study by Cohen-Vogel et al. (2020) of pre-K in North Carolina that used semistructured interviews with county administrators and principals. One principal in the study, for example, was quoted as saying, "The NC Pre-K [program] is so much like daycare . . . I think there needs to be more rigor" (p. 9). Participants in this study believed that the written standards and curricula were not rigorous enough to adequately prepare students for kindergarten.

The studies previously highlighted revealed principal views about appropriate instructional practices and content in pre-K from principals themselves; other studies in our review revealed principal views through reports from teachers. That is, teachers felt pressure to increase rigor and a focus on academics in pre-K from their principals. In their study of the implications of California's transitional kindergarten program

on educator preparation using a combination of interviews and surveys, Nicholson et al. (2018) illustrate how teachers felt pressure from principals. One teacher reported that delivering developmentally appropriate ECE content was challenging because of pressure to focus on academics. She said, “It is really hard . . . the pressure in the schools . . . being able to do all of this academic work really soon, and really early, and how do you make that happen?” (p. 24). Similar sentiments of pressure from principals to increase the focus on academic content were shared by pre-K teachers in Little’s (2020) exploratory qualitative analysis of school-based pre-K in North Carolina.

In sum, findings in the sampled sources consistently painted a picture wherein principals see pre-K programs as a useful tool to prepare students for the rigors of K–12 education. To be successful in preparing students for these rigors, according to principals, the pre-K program itself must be rigorous and aligned with the subsequent elementary grades. The sources reveal that principals themselves held these beliefs, and the accounts from teachers in elementary schools revealed these beliefs in practice in the form of pressures from principals to alter their instruction and content to focus more on academics.

Scope of Principal Responsibilities

In addition to findings related to principal beliefs about pre-K, findings from the sources we reviewed also focused on the scope of principal responsibilities for pre-K programs in their buildings. Our analysis revealed two subthemes related to the principal scope: (1) principals as connectors or isolators between pre-K and the higher grades and (2) their role in addressing pre-K resource disparities.

Principals as connectors or isolators. First, nine of the sources addressed the scope of principals as a connector or isolator between the pre-K program and the higher grades. Findings from these sources showed the ways principals played an important role in fostering greater connection between the pre-K program and the broader elementary school as well as collaborations between pre-K teachers and other teachers in the school. In their study of pre-K to third grade alignment, for example, Cohen-Vogel et al. (2020) learned from participant interviews that in school-based pre-K settings, some principals created “connections between teachers of Pre-K and kindergarten so that each understood the materials used, expected learning outcomes, and classroom environments in both grade levels” (p. 11). These authors also included elementary schools without pre-K programs in their study and found that in these settings, principals “admitted to knowing very little about Pre-K and student experiences there.” Little’s (2020) exploratory qualitative study of school-based pre-K in North Carolina found similar connections by principals. One of the principals in his study reported creating “vertical” professional learning communities that brought together teachers from across the pre-K to third grade levels to coordinate curricular content progressions. A case study by Garrity et al. (2021) focused entirely on such a PLC and explored the extent to which the principal’s facilitation of the PLC aligned with NAESP’s P–3 Leadership Competencies. They found that principal support was key in developing a school-wide commitment to the P–3 early education continuum and ensuring developmentally appropriate practices therein. Finally, a mixed methods study of an early grade (pre-K through grade 2) curricular reform initiative in Boston found that principals played an important role in supporting the success of the reform with

their buy-in and by connecting teachers and coaches in the implementation work (McCormick et al., 2019).

Desimone et al. (2004) is unique to the sample because they study the initial implementation of pre-K programs into elementary schools rather than pre-K programs already institutionalized within elementary schools. They drew on focus group data from pre-K teachers, kindergarten teachers, and parents, and their analysis revealed that principal leadership was integral for the successful implementation of new pre-K programs into existing schools. Not only did principals help create connections between the early grades, but they also set the tone for supporting the new pre-K program such that it was more readily accepted by other stakeholders (e.g., K–5 teachers, parents). The authors wrote, “Parents at one elementary school praised their principal’s skill at fostering teacher ownership, saying that ‘if the principal is accepting and works with the teachers to be accepting, I think that everyone benefits’” (p. 376). However, as we will detail next, connections as revealed in these previous sources were not practiced by principals universally; in some cases, principals played an active role in isolating the pre-K program.

Three sources in our review clearly highlighted the ways in which principals may play an isolating role (Brown, 2009; Little, 2020; Wilinski, 2017). Brown’s (2009) instrumental case study describes a context where elementary school principals felt severe pressures to deliver results on the state’s high-stakes accountability assessments in the tested elementary grades (i.e., 3–5). As a result, principals felt that pre-K was not a priority and thus had an isolated status within the elementary school. One principal stated, “When you’re under the gun like we all are for the third, fourth, and fifth grade for the TAKS [accountability assessment] scores, Pre-K is the farthest grade away from the test and gets pushed aside” (pp. 214–215). Brown went on to describe a consequence of this reality, wherein principals would even reassign their lowest performing teachers to pre-K, where they were “farthest away from the state’s TAKS test” (p. 215). Evidence of these strategic staffing moves by principals has been found in studies of elementary schools that did not meet the criteria for sample selection here (Cohen-Vogel, 2011; Grissom et al., 2017).

Wilinski’s (2017) findings also describe cases of principals as isolators of pre-K programs, though the impetus for doing so in that study was not the result of accountability pressures diverting attention away from pre-K. Describing a teacher in a school-based pre-K setting in her case study who switched from teaching kindergarten to pre-K, Wilinski (2017, pp. 90–91) noted, “As a kindergarten teacher, Grace felt like she was part of her school and had good relationships with her principal and colleagues. When she began teaching 4K, Grace felt disconnected and isolated, and she felt like her work was less valued than before.” The isolation was quite literal for this teacher; the principal moved her classroom into the basement of the school because there were space constraints. In addition, the principal did not spend much time visiting the pre-K classroom, as reported by the pre-K teacher. All of these things made the pre-K teacher feel isolated and disconnected, as if the principal did not value the work she did.

Little’s study of school-based pre-K in North Carolina featured principals who were less actively isolating pre-K but rather passively doing so. In multiple elementary schools in his study, the pre-K program was located in the building and did not interact with the broader elementary school beyond essential communications. Describing a specific principal from the study, Little (2020, p. 24) wrote that they “did not

engage with the program beyond handling basic administrative tasks, such as coordinating a substitute teacher if the Pre-K teacher was absent.” Recall that Little (2020) also found some principals to be active connectors. When exploring possible reasons for why there was variation between principals, he found that principal support for inclusion of the pre-K program in their school may vary based on the principals’ personal beliefs about pre-K. Summarizing this finding, he wrote, “Principals who actively engaged with the Pre-K program cited the importance of ECE and the benefits that Pre-K provides in terms of preparing students for kindergarten. These principals would frame having Pre-K in their schools as an opportunity to leverage and something that will help students become more successful throughout elementary school” (Little, 2020, p. 24). Furthermore, some of the principals that did not work to connect the pre-K program to the school justified not doing so because they did not see the pre-K program as a part of their formal scope of responsibility. As one principal put it, “We have to do all of these things [related to pre-K], and we don’t get anything for it. They [pre-K students] don’t count in our enrollment counts” (p. 24). This principal was frustrated that there were additional responsibilities added to her plate with no accompanying support or financial resources because the pre-K students did not count in the elementary school’s enrollment counts.

Although the studies highlighted above show examples of principals acting as both connectors and isolators and potential reasons for both, they tell us little about the relative distribution of principals at either of these extremes or in places in between. Shue et al.’s survey of school-based pre-K principals in North Carolina provides some insight into this. The authors found that 45% of principals were generally happy to have a pre-K program within their school and supported its inclusion. Twenty-five percent of principals were neutral regarding their feelings about the pre-K program. Only 8% reported having concerns about the pre-K program. It is important to note, however, that this survey included 163 respondents and took place in a single state.

Principals and pre-K resource disparities. The Wilinski (2017) case study documenting the relocation of a pre-K classroom into the basement of the school is a prime example of another theme of the findings from sources in the review—principals and pre-K resource disparities. Findings from five of the sources provided insights into this theme and included discussion of three resource types: (1) physical space, (2) material resources, and (3) teacher compensation. In terms of physical space, findings from the studies showed that principals often viewed pre-K programs as secondary and placed them wherever there was space available—even if it was in the basement of the school. Though not the dominant narrative in the sources, there was one new school in Little’s (2020) study that was built with pre-K in mind, so the classroom had appropriately sized facilities (e.g., age-appropriate playground equipment). In terms of material resources, Desimone et al. (2004) described how, after the initial integration of the pre-K program into an existing school, a tension arose over the use of the faculty lounge, copier, and school gym, with non-pre-K teachers thinking these resources should not be used by the pre-K teachers. In terms of teacher compensation, conflicts emerged over the fact that, depending on the local policy governing the pre-K program, pre-K teachers could be paid considerably less than their elementary teacher counterparts and also have fewer benefits (e.g., time for professional development and breaks throughout the day; Desimone et al., 2004; Sipple & McCabe, 2011; Wilinski, 2017). Tensions over each of these resources presented challenges for principals to address—but the studies

in our review suggest that principals' lack of value for pre-K may inhibit them from providing equitable remedies. Brotherson et al. (2001, p. 42) noted that principals saw pre-K as "only one small piece of their job as elementary school principals" and that many of the related issues were "outside of themselves and their control."

Principal preparation for leading pre-K programs. Eight of the sources found that principals did not have a strong background in ECE because their leadership preparation programs did not provide them with any training. For example, Ritchie and Gutmann (2013, p. 183) found that "few principal preparation and professional development programs provide learning experiences on early childhood standards, early childhood brain research and learning theories, or funding and school laws and policies related to early childhood care and education programs and services." Similarly, a survey of 163 principals in North Carolina found that only 12.5% agreed or strongly agreed with the statement "Had training in principal preparation program for ECE administration," and less than half of these principals had taken a course in child development (38.8%) or ECE (44.0%; Shue et al., 2012, p. 225). That principals lacked training in early childhood instruction and leadership during their preparation programs is not too surprising given that Illinois is the only state that requires early childhood content as part of their principal licensure requirements (Brown et al., 2014). In addition, Nicholson et al. (2018) found that education leadership faculty's background in ECE is often limited to their own prior experiences teaching the early elementary grades or their own experiences parenting young students. They also found that none of the faculty they interviewed reported including early childhood content in their principal preparation programs.

Importantly, this lack of training in ECE during principal preparation is not an indication of a lack of support for the idea of including it. Rather, both principals and principal preparation faculty believed that ECE should be an important component of training, especially for those school leaders who will be responsible for pre-K classrooms (Nicholson et al., 2018; Shue et al., 2012). In addition, many principals working with pre-K programs and their district leaders recognized the need to offer more professional development resources and training in ECE (Brotherson et al., 2001; Desimone et al., 2004; Nicholson et al., 2018). For example, Shue et al. (2012) found that principals wanted more knowledge on pre-K regulations, standards, and curriculum; child development; the best way to evaluate the quality of a pre-K program; funding sources that support pre-K; and increased clarity for their role in administering pre-K.

Principals' lack of knowledge about ECE can have negative consequences for initiatives and programs designed to support pre-K environments in elementary schools. For instance, Desimone et al. (2004) found that the implementation of pre-K programs in elementary schools was hindered by administrators' lack of training in ECE. Similarly, Brotherson et al. (2001) found that principals working to support young children with special needs had not received any training and were often unfamiliar with program models (e.g., reverse integration, Head Start) that they were required to use. Many of these principals also expressed a concern at the expectations of the job, arguing that pre-K was "only one small piece of their job as elementary school principals" (Brotherson et al., 2001, p. 42). In Texas, one district found it difficult to implement an assessment tool designed to align the academic achievement expectations for pre-K with those found in their district's standards-based K–12 program because school administrators did not have enough knowledge of child development to

understand how the tool could help prepare children for elementary school (Brown, 2010). An initiative to align instruction and content across pre-K and elementary schools in Boston public schools found that to generate buy-in from principals and teachers, they needed “a deep understanding . . . about what ECE and development looks like in practice” (McCormick et al., 2019, p. 68). A similar finding was reported in the Garrity et al. (2021) case study of an early grade PLC. A key factor contributing to the success of the PLC was the in-depth coaching and partnerships the principal had with ECE experts to “increase her understanding of developmentally appropriate teaching and best practices in ECE” (p. 14).

Future Research

The inclusion of pre-K classrooms in elementary schools across the United States has become common (Fuller et al., 2018; Little, 2021). Despite the prevalence of pre-K programs in elementary schools, our key finding from this systematic review is that there has been limited attention in the empirical peer-reviewed research literature to principal leadership in the pre-K context.² Even when pre-K leadership has been studied, it is rarely the primary topic of inquiry. Indeed, of the 16 studies that met our inclusion criteria, only four treated pre-K leadership as a primary focus.

With the lack of empirical attention revealed, this section sets forth a research agenda to address unanswered questions on the topic of principal leadership of pre-K programs. The devastating, COVID-19-triggered contraction of the private ECE market, along with the ongoing propagation of quality-assurance features in the early childhood policy space (e.g., tiered quality rating systems; kindergarten entry assessments), suggest that policymakers at the federal, state, and municipal levels will likely continue to expand the number of pre-K seats generally and in public elementary schools in particular (e.g., Bipartisan Policy Institute, 2020; Sonnier-Netto et al., 2020). The Biden administration’s American Families Plan, for example, includes the following goal: “Provide all 3- and 4-year olds access to free, high-quality pre-kindergarten” by “partnering with states to provide a mixed delivery system that includes public school systems, child care centers and family care providers, and Head Start.” A statewide ballot measure in Colorado and the initiatives that passed in November 2020 in Portland, Oregon, and a handful of other locales further indicate that more publicly funded seats in preschool programs are coming soon. As they do, evidence about how public investments can be made to support skilled leadership praxis takes on added urgency.

The increasing policy attention to public pre-K resulting from COVID-19 and the election of President Biden is not the only reason to call for the immediate funding of a robust empirical investigation of pre-K leadership. Another is the type of scholarship that is currently lacking. Notable in our review is the finding that extant studies have not been designed in ways that help unpack the impacts of principal leadership for a school’s youngest students. Put differently, there is essentially no research about the effects of principal leadership on student cognitive and noncognitive outcomes during the pre-K year and transition to kindergarten, even as the field has made notable strides that soften the ground for such work. Specifically, a triumvirate of advances make the immediate execution of a robust research agenda possible: (1) the integration of state administrative data sets that allow children to be tracked from birth

through high school graduation and beyond (Limlingan et al., 2015; Little, 2020; Park-Gaghan et al., in press); (2) conceptual and analytic developments for measuring principal performance generally (e.g., Grissom et al., 2015); and (3) the construction and validation of instruments to assess the learning and executive functioning of very young students (e.g., Clark et al., 2010; Garcia-Barrera et al., 2014; Thorell & Catale, 2014; Willoughby et al., 2019).

In short, research on pre-K leadership is not only needed but also possible. Research is needed on virtually all aspects of pre-K leadership, from principals' knowledge of early childhood development to the extent to which education leadership preparation programs have begun to train principals for work with 4-year olds and their teachers. Most critically perhaps, we need empirical research aimed at estimating the extent to which principals matter for setting the conditions for children to thrive in pre-K and beyond. Specifically, we argue for the prioritization of large-scale, rigorous evaluations that can simultaneously assess the extent to which leadership praxis can improve student outcomes and, at the same time, ensure public dollars are allocated toward professional development programs supported by research. There have been some recent efforts to design and launch professional learning opportunities to improve early grades leadership praxis. In 2017–2018, for example, the NAESP launched its Pre-K–3 Leadership Academy along with a principal competency framework. To date, only small-scale evaluations have been conducted, even as the academy continues to launch cohorts in many states, including Nebraska and Connecticut, and districts across the nation (Schmidt-Davis, 2018). Programs like this one present opportunities to design large, rigorous, cross-state evaluations with potentially high saliency for policymakers across the nation (NAESP, n.d., 2014). Such evaluations should be designed to answer: What is the effect of pre-K leadership preparation and praxis on the in-school experiences of students across the P–3 continuum, as well as their academic and nonacademic outcomes in the short and long term? Evaluations should take care to include implementation metrics that measure both spread and depth (e.g., number of principals trained, manifestations of the training in principal praxis) to assure that any detected effect (or lack thereof) on student outcomes is in fact due to the program. Care should also be taken by researchers to work in partnership with policymakers, practice experts, and families in determining the student outcomes of interest, especially in light of the different, sometimes colliding views surrounding the purposes of ECE (Bassok et al., 2016; Little & Cohen-Vogel, 2016; Miller & Almon, 2009; Russell, 2011). Partnering in this way helps produce “actionable” findings that focus on the needs of school leaders and other practitioners, creating favorable conditions for implementation uptake later on (Coburn & Penuel, 2016).

Also central to any research agenda into pre-K principal leadership is a deep understanding of the 4-year-olds enrolled. Generally speaking, public pre-K programs disproportionately serve children and families from the lower end of the income distribution. Although public pre-K programs in some states and municipalities are universal (open to all children of a certain age), most are “targeted,” with enrollment limited to children whose families meet an income cut-off or other eligibility requirements (e.g., children of military veterans; children with special needs; Curran, 2015; Dotterer et al., 2013).³ This fact, coupled with the recognition that achievement gaps appear early and tend to widen over the years children are in school, requires that researchers pay close attention to the selection of comparison groups in their designs

as they work to understand the impact of early grades principal praxis on student outcomes (e.g., Reardon, 2013; Reardon & Robinson, 2008).

Finally, because preparing principals to take on additional kinds of work and skill sets inevitably involves questions of costs and scale, the agenda to study pre-K leadership should consider the affordances and challenges of various approaches for achieving population impact in a cost-efficient way. Researchers employ a number of different approaches to cost analysis, including cost effectiveness, cost feasibility, cost utility, and benefit cost (Levin & McEwan, 2001; Levin et al., 2017). But as they do, they should take care to remember that educational interventions that work in one community may not be as effective or efficient in another; put simply, context can affect the costs and outcomes (Duncombe & Yinger, 1997; Monk & King, 1993) and should be considered alongside any efforts to scale effective principal praxis.

Conclusion

Our goal with this systematic review was to reveal what is known in the empirical literature about pre-K principal leadership. In doing so, our most notable finding is the scarcity of evidence on the topic, especially in terms of evidence that points toward the design of principal capacity building efforts that have direct and positive impacts for students. As we show in the Future Research section earlier, that scarcity, along with the understanding our review unearths regarding what is and what is not yet known about early grades principal praxis, is critical for setting forth priorities for future researchers and research funders to consider.

Overall, the scholarship presented in this review together suggests that principals are not getting much by way of preparation, leading them to make sense of pre-K classrooms either as offshoots over which they have limited authority and expertise or as extensions of the existing school system that can support student learning throughout elementary school. Theoretical perspectives on “policy coherence” provide a useful framework to view this divergence in principal perspectives, which Honig and Hatch (2004, p. 26) define as “an ongoing process whereby schools and school district central offices work together to help schools manage external demands.” These external demands (i.e., pre-K programs in schools) can be perceived as burdensome and misaligned with school goals, or they can be perceived as compliments that provide new opportunities for school improvement. The studies in this review revealed how principals could fall on either end of this continuum, with some finding the pre-K program a burden that distracts time and resources from the broader elementary school, and others seeing pre-K as a benefit that can help better position students for success in the early grades.

Understanding elementary school principals as key players in fostering a culture of support or exclusion of pre-K programs positions them as a central actors in understanding pre-K effectiveness. We know that school principals have profound impacts on their school’s organization and effectiveness (e.g., Branch et al., 2012; Leithwood et al., 2004). We also know that elementary school contexts can shape the nature and effectiveness of pre-K programs (Rochester et al., 2019). It follows that principal leadership, therefore, may have profound effects on the success of pre-K programs, not only in terms of the pre-K grade itself but also in terms of how it is integrated and

aligned with the early grades (Little, 2020). For this reason, we put forth a research agenda to help move the field toward the goal of estimating the extent to which principals matter for setting the conditions for children to thrive in pre-K and beyond. Given the critical challenge of pre-K fadeout (Bailey et al., 2017), improvements in elementary principal leadership of pre-K programs in schools have the potential to help deliver on the promise of pre-K by achieving more sustained impacts.

Notes

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1. Note that the peer-review process often differs between academic journals and books. Although books are not reviewed with double-blind review, they are reviewed by an editor with extensive subject-matter expertise. We decided to include these two books given their salience for the review topic, focus on reporting results from empirical research, and publication by a reputed publisher.

2. Note that our review was limited to the US context. Future reviews could include research on international contexts to derive lessons learned about principal leadership of pre-K programs.

3. Even as families who qualify for many of the nation's pre-K slots are, by definition, lower income, the programs do not always reach those most in need. As a result, children from higher income families are still more likely to be enrolled in preschool, compared with children from less affluent homes—61% compared with 41% (United States Department of Education, 2015).

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