



State leaders in early childhood education: Perspectives on instructional policy supports and alignment

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ABSTRACT

States may regulate instructional policies—standards, curricula, assessments, and professional development—of early childhood education programs with the goal of improving student learning outcomes. The purpose of this paper is to report findings from a national survey (61 respondents from 30 states) and follow-up interviews ($N = 12$) on how state early education leaders think about key issues related to instructional policy supports. Notable findings include broad support from state leaders for using a combination of global and content-specific curricula and for developing consistency in curricula regulations across disparate early childhood programs. State leaders also report moderate alignment among the instructional policy supports investigated. Understanding the views of these state leaders is important given the latitude the departments and agencies they represent have in shaping instructional policy of early education programs.

1. Introduction

Across the states, there has been considerable attention in recent years focused on improving the quality of early childhood education programs through the development, adoption, and implementation of policies and regulations regarding *instructional policy supports* (Merrill et al., 2020). By instructional policy supports, we are referring to curricula, standards, and assessments, where each of these three core elements is supported by coordinated professional development. In addition to increased interest in these instructional policy supports, there has also been a related focus on making sure these supports are *aligned* with one another and mutually reinforcing in order to improve instructional quality and, in turn, improve student outcomes in early childhood education programs (Cohen-Vogel et al., 2020a; Little, 2017; Whitaker et al., 2022). The development of instructional policy supports and efforts to improve alignment among them, proponents argue, is a critical element in a comprehensive strategy to overcome persistent challenges facing the early childhood field, such as wide variability in program quality (e.g., Valentino, 2018) and fadeout or convergence of program impacts (Bailey et al., 2017).

The purpose of this study is to respond to this recent interest in instructional policy supports and alignment by capturing the views of state leaders in early education. These leaders have considerable latitude in

the design and implementation of policies regarding instructional policy supports and alignment. For example, in some states, leaders (and the departments and agencies they oversee) develop lists of approved early childhood curricula that publicly-funded programs must choose from (e.g., Cohen-Vogel et al. 2020a). Therefore, understanding the perspectives of these leaders is useful for understanding how these policies are playing out in the states. Moreover, while recent work published in this journal has focused on instructional policy supports and alignment (e.g., Cohen-Vogel et al. 2020a, Whitaker et al. 2022), we are aware of no other studies that have examined this topic from the perspective of state leaders from across the United States. This study begins to fill this gap.

In the pages that follow, we describe the results of an explanatory sequential mixed-methods study (Morse, 2003) wherein we surveyed state leaders in early education from across the United States and followed-up with a subset of survey respondents using semi-structured qualitative interviews. Our survey sample of state leaders included 61 respondents and we followed up with 12 leaders for interviews. Our analysis focused on five specific topics within the domains of instructional policy supports and alignment: (1) selection of curricula, (2) global vs. content-specific curricula, (3) implementation of curricula, (4) alignment among instructional policy supports (i.e., standards, curricula, and assessments), and (5) alignment between early childhood education pro-

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grams and the early elementary grades. Before presenting these results, we next turn to provide definitional clarity and review what is known about each of these topics.

2. Background literature

2.1. Instructional policy supports in early childhood education

Instructional policy supports are often conceptualized as including three core components: (1) curricula, (2) standards, and (3) assessments (Cohen-Vogel et al., 2020a; Smith and O'Day, 1990). Instructional policy support systems also often include professional development aligned to each of the three components. As a reform strategy to improve instructional quality, instructional policy supports can be traced to the standards-based reform movement in K-12 education (Polikoff, 2012). The motivation behind instructional policy reform stems from the wide variability in the content of teachers' instruction and the theory for change posits that instructional supports are needed to provide a coherent "instructional target" for teachers (Polikoff, 2012, p. 343). Summarized by Polikoff & Porter (2014), "providing teachers with more consistent messages through content standards and aligned assessments and curriculum materials will lead them to align their instruction with the standards, and student knowledge of standards content will improve" (p. 401).

The focus on instructional policy supports in the realm of early childhood education has increased. Writing on the topic in this journal, Cohen-Vogel et al. (2020a) noted that in recent years, "the Head Start Bureau developed its Child Outcomes Framework, describing learning expectations in each of eight domains; professional associations established content standards in early mathematics and literacy; and national reports called for the creation and implementation of content standards, performance standards, and measures of child outcomes as part of a broader effort to improve teaching and learning in the early years, and most states have followed suit" (p. 3). A recent analysis of "quality features" in state-funded early education programs from Merrill et al. (2020) documented these changes. They found that, for example, all fifty states have adopted some form of content standards that align with the National Education Goals Panel's Essential Domains of School Readiness. Having defined instructional policy supports and documented its prominence as a policy reform movement, we now turn to provide a brief overview of what is known about each of the constituent elements.

2.1.1. Curricula

The element of early childhood education curricula has arguably received the most attention in the literature to date. First, there is much debate about the definition of curricula in early childhood. As Lash (2019) wrote in a chapter on curricula in the Wiley Handbook of Early Childhood Care and Education, "the term curriculum is complex, contested, and not easily defined" (p. 261). Not only does curricula define *what* is taught, it also can signal *how* content should be taught. Summarizing the contours of this contested definitional terrain, Lash wrote:

Is curriculum viewed as specific activities and lessons, a particular approach or model that guides the entire program (e.g., Montessori, High/Scope, Creative Curriculum), or is it considered as Jones and Nimmo (1994) point: curriculum is what happens—everything that occurs, planned and unplanned, in an early childhood program as experiences and perceived by children?" (p. 265).

In the context of publicly-funded early childhood program policy, curriculum has come to primarily be conceptualized as the "particular approach or model that guides the entire program," such as High/Scope or Creative Curriculum. These forms of curricula have also been termed "published curricula" (e.g., Whitaker et al. 2022). There are three issues related to early childhood curricula that we investigated in this study:

(1) selection of curricula, (2) global v. content-specific curricula, and (3) implementation of curricula.

Selection of curricula. As part of their instructional policy support regulations, 84 percent of states draft guidance regarding curricula that publicly-funded programs must conform with. Some states, such as North Carolina, develop a list of pre-approved comprehensive and evidence-based curricula that programs must select from. Common curricula on approved lists like these include the Creative Curriculum, High/Scope Preschool Curriculum, and Tools of the Mind (Cohen-Vogel et al., 2020a). In other states, little guidance is offered and programs may choose a published curriculum or use their own locally-developed curriculum. At the federal level, Head Start requires that programs adopt a whole child curriculum that is evidence- or research-based (Whitaker et al., 2022). Given this policy variation that exists across the states (Cohen-Vogel et al., 2020a), our survey interrogated how state leaders think about curriculum selection approaches. We also inquired about whether or not such requirements should be consistent across different types of early childhood education programs (e.g., Head Start and state-funded Pre-K).

Global v. content-specific curricula. In addition to the selection of curricula, another key area of discussion regarding early childhood curricula is its scope of comprehensiveness. That is, to what extent should early childhood curricula be global or content-specific? Global curricula are curricula that cover multiple domains of children's learning, often defined as the National Education Goals Panel's (NEGP) Essential Domains of School Readiness, established in 1995 (Merrill et al., 2020). These domains include: (1) language and literacy development, (2) cognition and general knowledge (including early mathematics and early scientific development), (3) approaches toward learning, (4) physical well-being and motor development (including adaptive skills), and (5) social and emotional development. Content-specific curricula, on the other hand, focus exclusively on specific domains such as mathematics or socio-emotional development. An example of a content-specific early childhood curriculum that has garnered significant attention in recent years is the Building Blocks mathematics curriculum (Clements & Sarama, 2007).

Data from the National Survey of Early Care and Education reveals a portrait of the prevalence of different curricular approaches in Pre-K and Head Start programs. Summarized in Jenkins & Duncan (2017), 73% of Head Start programs and 41% of state Pre-K programs used a global curriculum. Among the global curricula, Creative Curriculum and High/Scope were the most popular. About 20% of programs used other published curricula, which could include content-specific math and literacy curricula. Thirty-four percent of Pre-K programs and 7% of Head Start programs reported using either a locally-developed curriculum or they did not use a curriculum.

There is a limited body of scholarly work that has focused on the relative efficacy—in terms of school readiness outcomes—of different forms of early childhood curricula. One of the most comprehensive analyses aggregated data from a multi-site experimental study of preschool curricula and compared global curricula to academic content-specific curricula (Jenkins et al., 2018). These authors found that widely-used global curricula increased measures of quality, relative to locally-developed curricula, but were ultimately unrelated to increased measures of school readiness. Content-specific curricula, on the other hand, while not related to measures of process quality, were related to increases in literacy and math achievement, respectively. Findings like this and others (e.g., Jenkins et al. 2019) have increased the debate over the types of curricula early education programs should select. For this reason, our study investigates how state leaders think about global versus content-specific curricula.

Implementation of curricula. Last, curricula are only as good as they are implemented in classroom practice (Polikoff, 2018). For years, primarily focused on K-12 educational contexts, researchers have docu-

mented that curricula are often not implemented with high levels fidelity (Polikoff, 2021). Similar findings have been documented in early education. For example, in an analysis of five samples of preschool children, Jenkins et al. (2019) investigated differences in classroom processes between classrooms using different types of curricula. These authors found that, despite using different curricula, classroom practices did not generally vary. Practices did vary, extensively, between classrooms using the *same* curriculum. Findings such as these indicate that the use of a curriculum, in general, does not predict differences in classroom practices and interventions are needed to support greater fidelity. A variety of supports have been promoted and studied, ranging from traditional models of professional development (e.g., Joyce & Showers 2002) to highly structured and intensive coaching models (e.g., Weiland et al. 2018). Given this, we interrogate how state leaders see the alignment of professional supports for curriculum implementation playing out in their states.

2.1.2. Standards

In addition to curricula, there has been a push to develop early learning standards, which define the content, skills, or knowledge children should have prior to kindergarten entry (Scott-Little et al., 2006; Whitaker et al., 2022). There is limited evidence on the effectiveness of early learning standards in terms of their impacts on student outcomes. The literature to date has largely focused on defining what should be included in early learning standards and documenting their prevalence (Merrill et al., 2020). Similar to the rationale cited above for global curricula, there is a consensus that early learning standards should align with the previously defined five NEGP Essential Domains of School Readiness (ED, 2011). As documented by Merrill et al. (2020), a near universal diffusion of early learning standards was spurred as part of the Obama Administration's Race to the Top Early Learning Challenge. Today, all 50 states have some form of early learning standards. In some states, different terms are used, such as "Foundations for Early Learning and Development" or "Early Learning Framework" (Cohen-Vogel et al., 2020a). In this study, our focus on standards was in understanding how well state leaders perceived the alignment between standards and other instructional policy supports.

2.1.3. Assessments

The third pillar of instructional policy support systems is assessments. Assessments are needed, according to the theory underpinning instructional policy supports, to ensure that instructional targets set in standards and curricula are being met (Cohen-Vogel et al., 2020a; Smith and O'Day, 1990). Across the educational continuum, assessments can take a variety of different forms (e.g., formative, summative, diagnostic) and the stakes associated with them can vary (e.g., program evaluation, to help facilitate instruction). In early childhood education practice, assessments tend to be formative in nature and are used to facilitate instructional decision making (Curran et al., 2020; Little et al., 2019). Use of assessments in this way is consistent with guidance on appropriate practices as outlined in the National Research Council report, "Early Childhood Assessment: Why, What, and How" (Snow & Van Hemel, 2008). In many early childhood education programs, such as state-funded Pre-K programs and Head Start, formative assessment and diagnostic assessment tools are required. For example, Head Start program requirements state that, "a program must conduct standardized and structured assessment, which may be observation-based or direct, for each child that provide ongoing information to evaluation the child's developmental level and progress (ACF, n.d.). Common assessment systems are advertised as being aligned to published curricula and state early learning standards, such as Teaching Strategies GOLD (Cohen-Vogel et al., 2020a). In this study, our focus on assessments was in understanding how well state leaders perceived the alignment between assessments and other instructional policy supports.

2.2. Alignment

Having detailed the core elements of instructional policy supports and some of the key questions in the literature surrounding them, we now turn to describe the second core area of focus in this study: alignment. The topic of alignment in early childhood education has garnered significant research interest in recent years (Little, 2018, 2020; Takanishi & Kauerz, 2008). Indeed, a special issue of *Early Childhood Research Quarterly* in 2020 featured seven articles on the topic (McCormick et al., 2020). Alignment can be conceptualized in two dimensions, including horizontal and vertical. Horizontal alignment refers to the alignment between instructional policy supports *within* grades (e.g., multiple supports within kindergarten), whereas vertical alignment refers to the alignment of these supports *across* grades (e.g., supports between grades Pre-K-3). Researchers interrogating alignment in early childhood education have used a variety of different methodological approaches, ranging from observations to teacher interviews to surveys of curricular content coverage. While these different methods have sometimes led to discrepant findings, and much more remains to be understood, there is a growing consensus that there is greater horizontal alignment than there is vertical alignment. That is, within early childhood programs, supports such as curricula and standards are more aligned than these supports are between grades (e.g., Cohen-Vogel et al. 2020a, 2021). To help build our understanding of alignment in early childhood education, we contribute to this literature by examining how state leaders perceive horizontal and vertical alignment. To date, we are only aware of one study that has examined state leader perspectives on alignment, which focused on a single state context (Cohen-Vogel et al., 2020b).

3. Conceptual framework

In Fig. 1, we present our study's conceptual framework, which we call the *Conceptual Framework of ECE Instructional Policy Supports and Alignment*. This framework is informed by a robust literature on instructional policy from the K-12 sphere, and more specifically, its recent applications in the early childhood sphere (Cohen-Vogel et al., 2020a; Kagan & Scott-Little, 2004; Whitaker et al., 2022). As highlighted in the review of the literature, instructional policy supports are comprised of three core elements: curricula, assessments, and standards. Together, these mutually reinforcing elements provide a coherent instructional target for early childhood practitioners. Teacher knowledge of each of these supports, and their ability to ensure they are connected, is supported by aligned professional development supports.

The right side of the conceptual framework highlights the dimensions of alignment that intersect with instructional policy supports. As mentioned above, alignment can take two key dimensions: horizontal and vertical. Horizontal alignment refers to the alignment between instructional policy supports *within* grades, whereas vertical alignment refers to the alignment of these supports *across* grades. This framework helped to guide our data collection and analysis procedures. As will be revealed in the following pages, while our analysis touches on each element of the framework, we focused much of our attention on early childhood curricula given its prominence in current policy debates (e.g., Sklar & Loewenberg 2022).

4. Methodology

4.1. Participants

Data collection and analysis for this study took place from November, 2021 to May, 2022. All protocols were reviewed and approved by a university Institutional Review Board. We developed a database of state leaders in early education through a two-part process. First, we collaborated with the National Association of State Leaders in Early Education (NASLEE) to acquire a mailing list of their members. NASLEE is

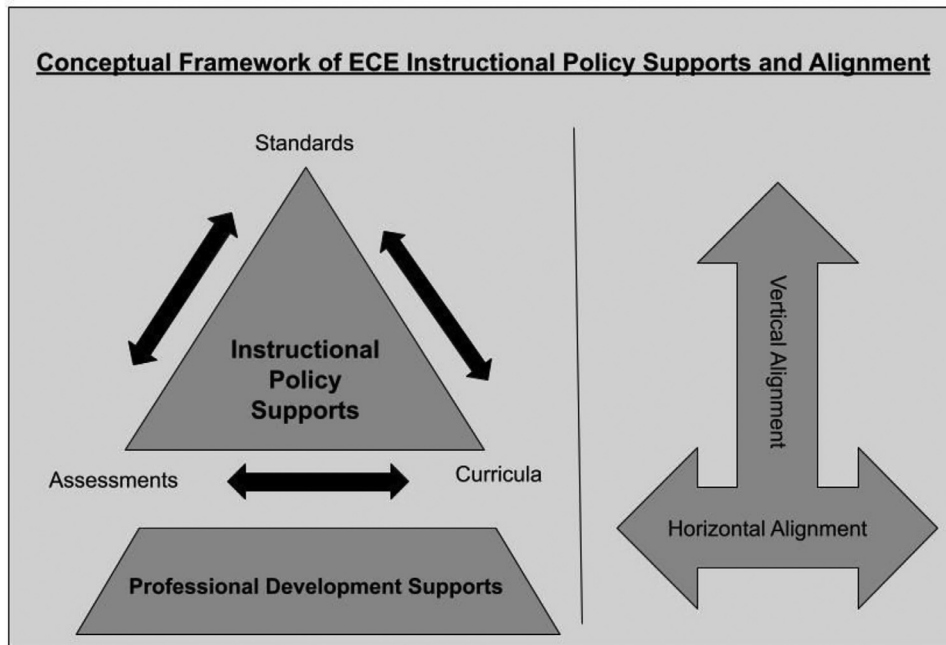


Fig. 1. Framework of ECE instructional policy supports and alignment.

Table 1
Descriptive statistics.

Variable	M	SD	Min.	Max.
Age	50.0	7.9	32.0	69.0
Years of Experience in State Agency	8.1	5.5	0.5	21.0
Years of Experience in ECE Overall	22.9	8.1	5.0	40.0
Variable	Percent	Variable		Percent
<i>Race/Ethnicity</i>				
Asian	3.3%	<i>State Agency Description</i>		
Black	6.6%	Department of Education		71.0%
Hispanic	0.0%	Department of Early Childhood or Other ECE-Focused Agency		20.0%
White	90.2%	Department of Health and Human Services		10.0%
<i>Seniority Description</i>				
<i>Gender</i>				
Female	96.7%	Manager/Director of Early Childhood Office/Department		49.0%
Male	3.3%	Mid-Level Early Childhood Education Specialist		44.0%
		Entry-Level Early Childhood Education Specialist		5.0%
<i>Highest Education Level</i>				
Bachelor's	8.0%			
Master's	62.0%			
Beyond Masters (e.g., PhD, EdD)	30.0%			

Note. M=Mean, SD=Standard Deviation, Min.=Minimum, Max.=Maximum, ECE= Early Childhood Education Sample size is 61 for each variable.

the national organization for state education staff members with “major responsibilities in the field of early childhood education, from infancy through the primary grades” (NASLEE, n.d). This list included 110 eligible participants. Second, since not all state leaders in early education were members of NASLEE, we also scanned state websites to develop a supplementary list of leaders. In developing this list, we sought non-duplicate contact information for state leaders who led early learning (Pre-K, Head Start, childcare) departments and divisions as well as Head Start Collaboration Office directors. This supplementary list included 66 eligible participants. Combined, our recruitment list for the survey included 176 state leaders in early education.

In total, 61 state leaders completed our survey for a response rate of 35%. We present descriptive information about the survey participants in Table 1 below. Nearly all participants identified as female (97%), had a mean age of 50 years, were predominately White (90%), and over 90% had a Master’s degree or higher. In terms of the state agency or departments participants were leaders in, 71% represented Departments of Education, 20% represented a Department of Early Childhood or ECE-focused agency, and 10% represented a Department of Health and Hu-

man Services. Our participants were senior and experienced leaders in states. Forty-nine percent of participants were the Manager or Director of their department, 44% were a mid-level employee, and only 5% were entry-level employees. Participants had an average of eight years of experience in their current state department or agency and an average of 23 years of experience in early childhood education overall. When comparing the individuals who participated in the survey to those that did not, we found that more senior leaders were most likely to respond. Anecdotally, numerous mid- and entry-level state employees responded to our recruitment emails indicating that their supervisor was completing the survey and they did not want to respond, feeling like their state/agency was best represented by their more senior leadership.

State leaders from 30 different states are represented in our sample. We compared the states where we had survey respondents to those that did not based on a measure of instructional policy supports captured by the National Institute for Early Education Research (NIEER). In their annual State of Pre-K reports, NIEER asks if states “offer guidance on selected curricula aligned with Early Learning and Development Standards.” Among the states represented in our sample, 80% reported “yes”,

compared to 90% of states not in our sample. Overall, 84% of states offer guidance on selected curricula. Consequently, our survey respondents represent states that provide slightly less guidance on curricula, on average, than in states not represented in our sample. That said, our survey focused more on state leader beliefs and opinions rather than their reports on state policy. When comparing survey responses from participants representing the same state, we found significant variation in responses, suggesting individuals are responding as individuals rather than simply reflecting and endorsing their state's respective policy context.

4.2. Measures

4.2.1. Survey

The primary mode of data collection for this study was an online survey that was administered via Google Forms. The survey was developed for this project based on the reviewed literature and conceptual frameworks. The survey was focused primarily on early childhood curricula, but also asked questions about alignment of curricula with other instructional policy supports, like standards and assessments. Specifically, there were seven questions focused solely on early childhood curricula, three on the alignment among instructional supports, and one on the alignment of early childhood education programs with early elementary school. The survey items asked participants about their personal opinions, not a reflection of their respective state's policy context. After the initial survey items were drafted, the survey was sent out for expert review to a combination of practitioners and researchers. Practitioner feedback on the survey was provided by NASLEE leadership, including the Executive Director and multiple board members. Researcher feedback on the survey was provided by three different scholars who have written extensively on the topic of instructional policy supports in the realm of early childhood education, including articles in this journal. After the feedback from these experts was incorporated into the survey, the survey was copy edited and programmed in Google Forms for data collection.

4.2.2. Follow-up interviews

In addition to the online survey, we also collected qualitative interview data from a subset of 12 participants who completed the survey and indicated they would be interested in a follow-up interview. Our interview protocol was aligned with the survey items and sought to capture additional context and detail. For example, one interview question asked: "In the survey, we asked about different preferences for global, whole child curricula (e.g., Creative Curriculum) or content-specific curricula, such as Building Blocks math curriculum. Do you have a preference for one or the other or some combination of the two? Why?" Interviews lasted approximately 30 minutes, on average. The 12 individuals who completed follow-up interviews came from eight different states, represented the three different categories of state agencies, and varied in terms of seniority and years of experience.

4.3. Data preparation and analysis

4.3.1. Survey data analysis

Once survey data collection was completed, we imported the data from Google Forms into Stata for analysis. First, we generated descriptive statistics to understand our sample (e.g., mean, standard deviation, minimum value, maximum value). Next, for each substantive survey question of interest, we created graphs that illustrated the participant responses.

4.3.2. Interview data analysis

At the conclusion of each interview, we completed a brief analytic memo detailing key impressions from the interview and noting any areas for follow-up or protocol revision. Next, we transcribed participant

responses for each question in an analysis matrix. Organizing the data in this way allowed us to scan participant responses, by question, to make sense of patterns in the data. For each question, we scanned all participant responses and developed summary statements and noted emergent themes. When themes were identified, we then created a new column in the analysis matrix to note which participants expressed views consistent with a particular theme. For example, if leadership emerged as a theme, we would then create a column and re-scan the data for each participant to note how, if at all, their responses aligned with that theme. Where applicable, we note these qualitative findings after presenting the survey result, along with supporting quotes (Miles & Huberman, 1994). This mixed-methods analysis can best be characterized as a QUAN → qual approach, where the quantitative data was primary and the qualitative data were used to supplement and provide useful illustrations and context, where applicable (Creswell & Clark, 2017).

5. Results

5.1. Selection of ECE curricula

We begin our presentation of the study results by summarizing our findings related to how state leaders think about the selection of ECE curricula (Figs. 2 and 3). In terms of how states should go about approving ECE curricula, we found a majority of participants (57%) believe the state should determine a list of approved curricula that programs can then choose from. Twenty-three percent of participants believed programs should be able to select their own curricula but must obtain state approval and 17% believed programs should be able to choose their own curricula without state approval. Only 3% of participants believed programs should be able to choose teacher- or locally-developed curricula.

In each of the follow-up interviews ($n = 12$), leaders were in favor of states regulating curricula in some form. Consistent with the survey results, the responses were divided between states creating lists of curricula that programs must choose from versus state approval of curricula selected from programs (without a list). In all cases, leaders justified their desire to have state oversight in the curricula selection process to ensure that programs were using evidence-based and high-quality curricula, though to varying degrees. Yet, there was resistance to the idea of mandating common curricula in favor of balancing the needs for local community contexts to determine the best fit curricula for their student/family populations. For example, one participant, favoring a more restrained level of state oversight said, "curriculum needs to be individualized to teachers/classroom/cultural context [...] it needs state guardrails around that, things that shouldn't be allowed [...] there is a balance between providing structure and adaptability." Another participant, favoring a pre-selected list of curricula, noted that state regulation could help ensure vertical alignment with the K-12 education system if each of the approved curricula was deemed to be aligned with the state's early grades curricula. Yet, as another participant highlighted, the goal of vertical alignment could also incentivize programs to adopt developmentally inappropriate curricula, which they noted was another justification for state regulation of curricula (i.e., assurance of developmentally appropriate practice). The leaders' responses regarding selection of curricula highlights a central struggle they face in balancing local control and context for curricula selection with needs for system alignment, quality control, and preservation of developmentally appropriate practice.

In addition to asking about the selection of ECE curricula, our survey also asked participants to reflect on the extent to which they agree curriculum requirements and regulations should be consistent across different ECE programs, including Head Start, State Pre-K, and private/non-profit subsidized care (e.g., CCDF). We found that the vast majority of participants endorsed the view that curriculum requirements should be consistent across programs (20% strongly agreed and 62% agreed). Eighteen percent of participants either disagreed or strongly disagreed

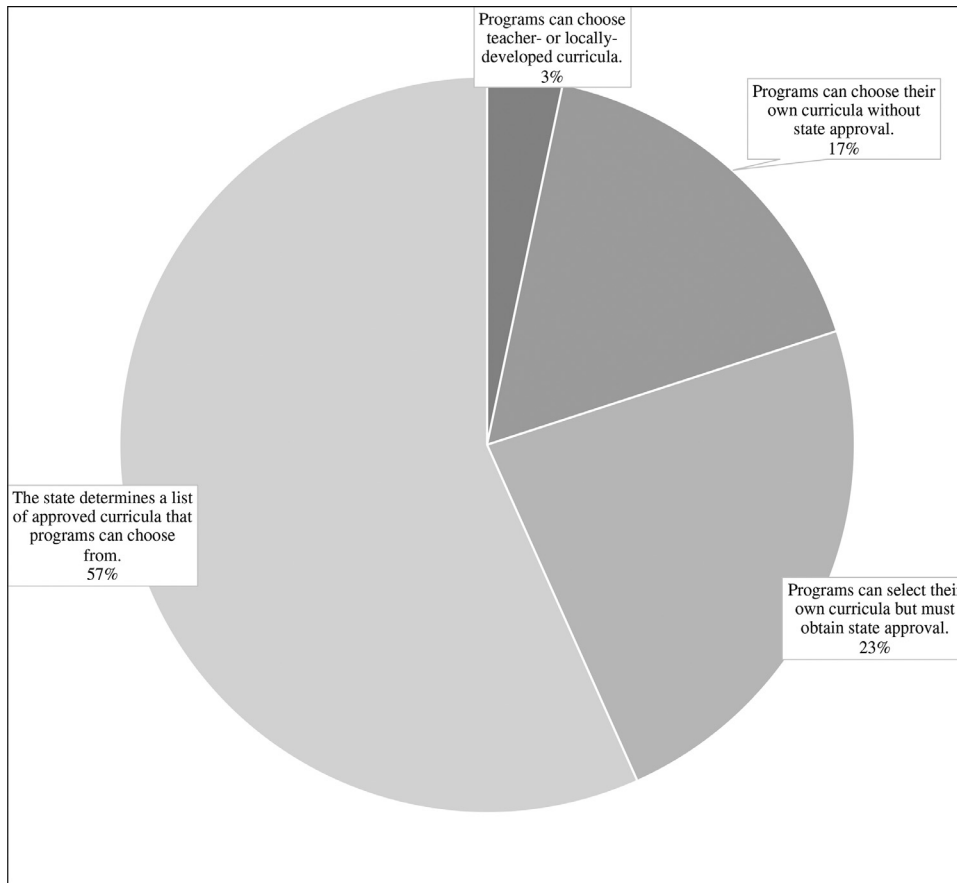


Fig. 2. Responses for Question: “How Should Curricula Be Regulated at the State Level?”

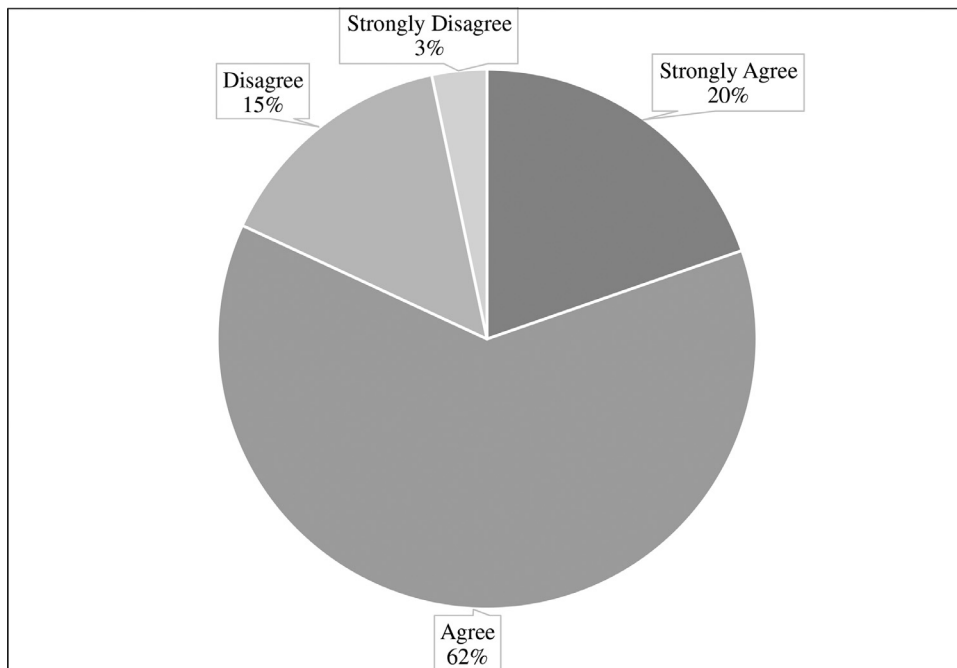


Fig. 3. Responses for Question: “To what extent do you agree that curriculum requirement and regulations should be consistent across different ECE programs, including Head Start, State Pre-K, and private/non-profit subsidized care (e.g., CCDF)?”

that requirements should be consistent between programs. From the qualitative interviews, leaders stressed curricula should vary between *levels* of ECE (e.g., infant/toddler versus Pre-K for four-year-olds) to ensure developmental appropriateness, but general state regulation should be consistent between programs serving *similar-aged students*. Particularly among center-based programs serving students in the year or two

prior to kindergarten entry, respondents remarked that many of the goals are essentially the same, so the contours of state regulation should be common. As one participant put it, “there are differences in what effective curriculum looks like in B-3 vs. preschool, with B-3 being bigger on interactions and less about content [...] but I don’t see any necessary distinctions between Head Start and Pre-K.”

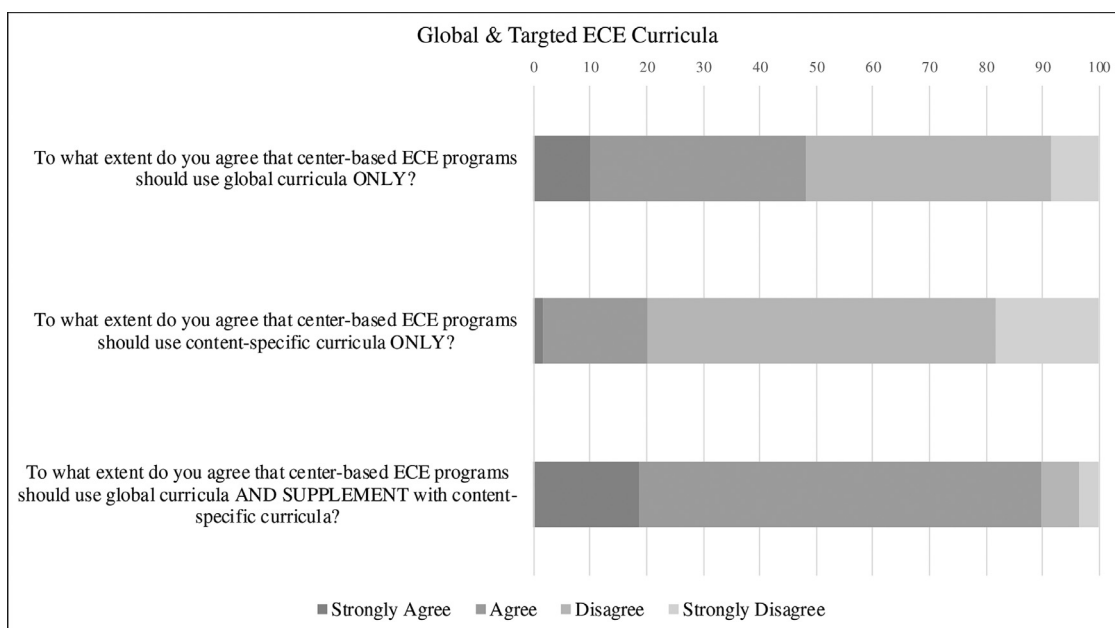


Fig. 4. Responses for questions related to global and targeted curricula.

5.2. Global vs. content-specific ECE curricula

The second key area of focus in the ECE curricula questions was related to leader views on global and content-specific ECE curricula (Fig. 4). As a reminder, global curricula are those focused on a holistic set of developmental domains (e.g., Creative Curriculum) and content-specific curricula are focused on specific developmental domains (e.g., mathematics). First, when asked if *only* global or content-specific curricula should be used (the first two questions in the figure), there was more support for the use of global curricula, but neither statement received support from a majority of participants. Forty-eight percent of participants either strongly supported or supported the use of only global curricula. Twenty percent of participants either strongly supported or supported the use of only content-specific curricula. However, when asked to what extent they agree that ECE programs should use global curricula and *supplement with* content-specific curricula, 90% of participants endorsed this approach.

Our interviews with leaders corroborated these survey findings and provided insights into their reasoning. Participants generally favored programs using global curricula as a baseline framework to shape the daily activities programs focused on. They saw content-specific curricula as a key vehicle for local context adjustments, through teachers using their best judgment to select context-specific curricula based on classroom and cultural needs of their students. One participant stressed that regardless of specific curricula used, teachers need proper training to implement the curriculum effectively and should see them as tools in a toolbox among other tools to use to support a child's development. Similarly, another leader said,

I also believe the success of global curricula depends heavily upon the knowledge and skill of the educator in understanding how to interpret and scaffold children's learning and development. In some cases, content-specific curricula may prove itself to be easier for educators with less knowledge and skill to implement as it often provides deeper guidance in how to scaffold children's learning. However, fundamentally, the very nature of content-specific curricula can lead to teaching in "silos" or over-emphasizing certain domains of learning (e.g., literacy), which can be very problematic. In my experience, an emphasis on specific domains regardless of curricular approach, can also lead to an overemphasis on adult-directed, large group in-

struction while child-initiated, play-based learning opportunities are limited or worse, devalued.

This quote highlights the difficult balancing state leaders make on curricular choices for programs. Seeing benefits to both global and content specific curricula, we found that leaders were in favor of a combination of both. The success of this approach, ultimately, depends upon effective implementation in classrooms, which is the focus of our next question. Last, the perspectives shared regarding global and content-specific curricula highlights a tension that leaders face similar to the prior topic of curricula selection regulations—that local control and context tailoring can come at the expense of assuring a whole child focus and developmentally appropriate practice (e.g., with only content-specific curricula leading to teaching in silos).

5.3. Implementation of curricula

The survey included two questions that focus on implementation of curricula (Fig. 5), which we conceptualized in two ways: (1) professional development supports for curriculum implementation and (2) perceived alignment between adopted curricula and classroom instruction. We found that 82% of state leaders either agreed or strongly agreed with the statement that "professional development ECE educators receive is aligned with their adopted curriculum." Only 5% of leaders strongly disagreed with this statement. We found similarly positive responses for alignment between classroom instruction and adopted ECE curricula. Specifically, 80% of state leaders agreed or strongly agreed that there was alignment between classroom instruction and adopted ECE curricula.

While the survey results suggested high levels of aligned professional development supports and alignment between classroom instruction and adopted ECE curricula, the interviews with state leaders provided a more nuanced story. Some of the leaders we interviewed highlighted challenges in aligning professional development with curricula. They noted that professional development is often a local decision and the state has little oversight, so it is difficult to ensure these supports are aligned well with adopted curricula. Not only is there limited regulation and central guidance regarding the selection of professional development supports, leaders also noted that there are vast amounts of different professional development vendors and the quality and scope of content covered is

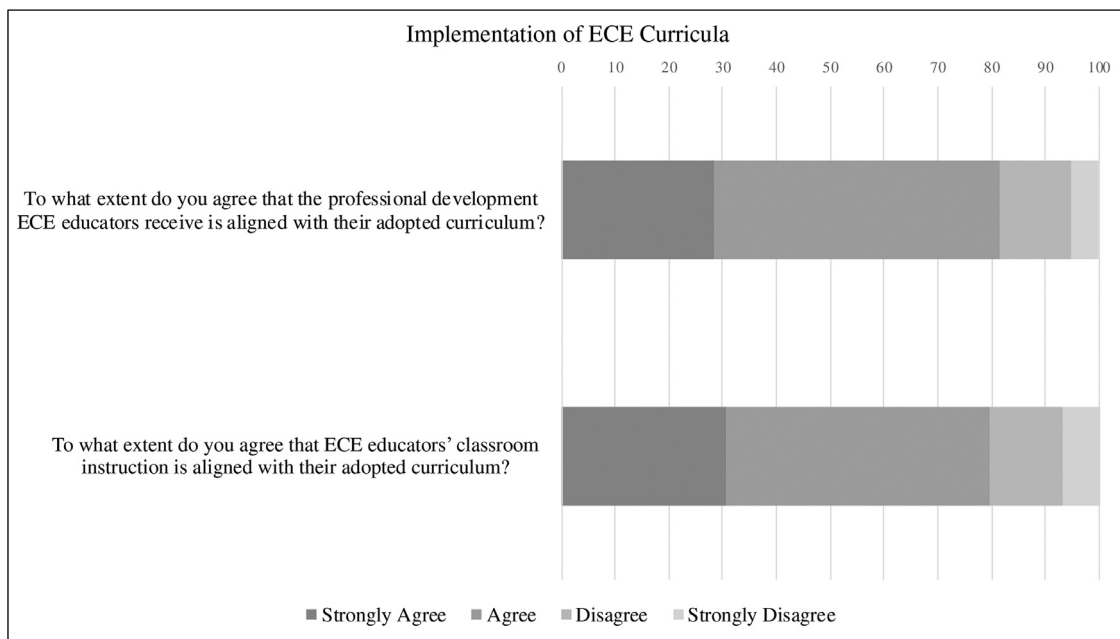


Fig. 5. Responses for questions related to implementation of ECE curricula.

likely variable. For example, one leader remarked that, “professional development is the least aligned because there is a variety of professional development being offered and not being monitored by the Department of Education [...] just the abundance [...] it is difficult to say they are effectively being vetted.” Another complicating factor is that many state professional development regulations are tied to teacher certification standards and not curriculum standards. As a result, the system is not designed to ensure that professional development is tied directly to the particular curriculum a program adopts.

Last, some participants linked variable alignment between adopted curricula and implementation in classrooms back to state curriculum selection approaches. As a leader said, “One dilemma we have is to ensure curriculum is being implemented appropriately. Without a ‘statewide’ curriculum it is difficult to collect data given that programs have local discretion for curriculum choice.” Without a coordinated statewide curriculum to allow for better comparison and outcome monitoring, the respondent was concerned this creates inequities in their system as programs are not held to a more universal standard for professional development to support a common set of curricula.

5.4. Alignment among instructional supports

Next, we shift our focus from exclusively ECE curricula to alignment of curricula to other instructional policy supports, including standards and assessments (i.e., horizontal alignment). In a set of three survey items we asked respondents to indicate the extent to which they saw alignment between each of the three instructional policy supports (standards & curricula, curricula & assessments, assessments & standards). We show the results for these survey items in Fig. 6. Overall, participants saw high level of alignment between instructional policy supports. Over 85% of participants saw that alignment between curricula and standards as “very aligned” or “somewhat aligned”. This figure was 77% for alignment between curricula and assessments and 82% for alignment between assessments and standards. While there was a small percentage of participants that selected “misaligned” for curricula/assessments (5%) and assessments/standards alignment (3%), zero participants rated any instructional policy supports as “strongly misaligned” with one another.

Our interviews with state leaders generally corroborated the survey findings, particularly for leaders representing states where instructional policy supports are more regulated (e.g., states developing lists of cur-

ricula programs must choose from). Of the three key instructional policy supports, there was some equivocation about the alignment of assessments to the other two supports. While some curricula have aligned assessment systems (e.g., Creative Curriculum and TS GOLD), other curricula do not or the state does not require programs to adopt an assessment system. These are two of the reasons provided by leaders for why, in some cases, assessments were not as well aligned as the other two supports.

Last, while most participants remarked that alignment was strong given some tools were advertised as being aligned to a state’s standards or they came from the same vendor (e.g., Creative Curriculum and TS GOLD), one leader called this assumption into question. This individual remarked that, “the degree of alignment is debatable; vendors say their tools are aligned. Bandwidth to verify and use a standard process to document alignment and degree of alignment is inadequate.” This quote highlights another tension between uniformity and local choice. With fewer choices, these states with limited capacity may be better able to vet alignment of instructional policy supports where it is infeasible with numerous different combinations of supports.

5.5. Alignment between ECE and K-3

Our survey also asked participants to think about alignment in a vertical dimension, between early childhood education programs and the early elementary (K-3) grades (Fig. 7). Here, we found lower reports of alignment, relative to horizontal alignment, from respondents. Ten percent of participants indicated that alignment between ECE and K-3 was “Very Aligned”, 56% indicated the programs were “Somewhat Aligned”, 25% indicated the programs were “Somewhat Not Aligned”, and 10% indicated that the programs were “Not Aligned”. Leader engagement with this dimension of alignment was limited in our interviews, but leaders corroborated the survey findings by indicating that alignment vertically was weaker than alignment horizontally. One participant noted that it is not just that the content and focus of different instructional supports may be misaligned, but that the very nature of the supports may be different. They gave an example of assessments between ECE and the K-12 education system. In ECE, assessments are often formative in nature (e.g., TS GOLD) whereas assessments in K-12 are standardized and often summative. For this respondent, misalignment of assessments vertically was not a bad thing because formative assessments are developmentally

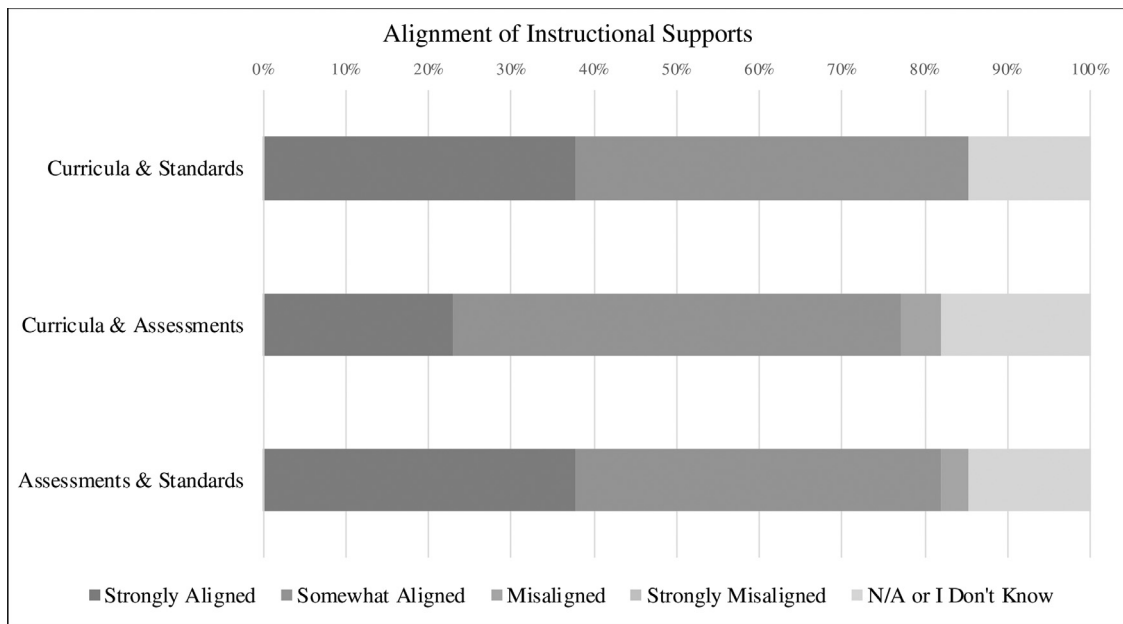


Fig. 6. Responses for questions related to alignment of instructional supports.

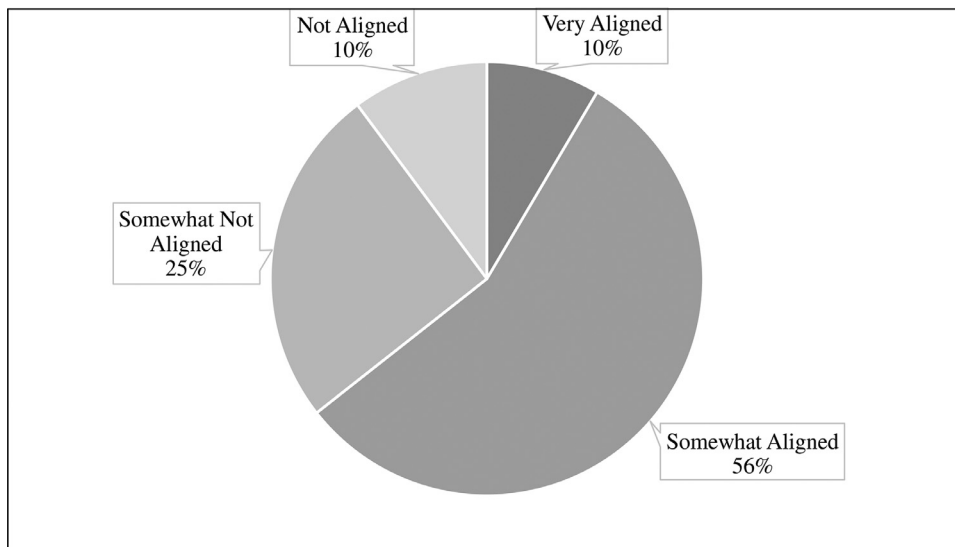


Fig. 7. Responses for Question: “To what extent do you believe your state’s ECE programs are aligned vertically with the early elementary (K-3) grades?”

appropriate in early childhood. Much of the misalignment vertically, according to participants, stemmed from the different governance structures and systems that oversee early childhood programs and the early grades, respectively. When standards, curriculum, and assessment policies are created from the same agency, it is easier for them to be aligned than when those policies are created from different agencies, which is common across the states.

6. Discussion

The goal of this study was to advance our understanding of early childhood education instructional policy supports and alignment by focusing on the views of state leaders. To recap the main results of this analysis we find, among our sample of state leaders, strong support for state oversight in the selection of early childhood curricula and a clear preference for combining global curricula with content-specific curricula. We also found that state leaders generally saw strong alignment horizontally between early childhood instructional policy supports (stan-

dards, curricula, and assessments), and this alignment was strongest in state contexts where there was state vetting of these supports. Last, we found less evidence of strong vertical alignment between the early childhood and K-12 education sectors. In the paragraphs that follow, we engage with these findings in terms of the existing literature base and discuss their implications for policy, practice, and future research.

Our findings are generally consistent with the existing literature on alignment of instructional policy supports. Multiple studies, such as those featured in a recent *Early Childhood Research Quarterly* special issue on alignment, have documented evidence of stronger horizontal alignment than vertical alignment (McCormick et al., 2020). However, it is important to note that much of the research focused on horizontal alignment of instructional supports in early childhood education is based on teacher and administrator perceptions (including the present study). We are not aware of any empirical tests of actual alignment of instructional policy supports with tools such as the Surveys of Enacted Curriculum, which have been used in the K-12 sphere (Polikoff & Porter, 2014). We suggest tools such as this be applied in the

early childhood sphere in future research. Despite this caveat, our findings regarding alignment of instructional supports are consistent with the existing literature and makes a novel contribution by focusing on a holistic range of state leaders, both in terms of states represented as well as agencies/roles within states. This builds on the work of Cohen-Vogel et al. (2020b) who interviewed county- and state-level early education leaders in North Carolina regarding alignment.

There are two areas where our findings contribute to current policy discussions regarding early childhood curricula, specifically. The first is related to the selection of global versus content-specific curricula. As mentioned in the review of the literature, the scholarship to date provides more evidence for the effectiveness of content-specific curricula, in terms of school readiness outcomes, relative to global curricula (e.g., Yoshikawa et al. 2013). Writing on this topic in 2018, Weiland and colleagues noted that, “work to date suggests that a combination of preschool curricula intentionally focused on specific domains, such as literacy, math, or social-emotional skills, and supported by teacher training and coaching—called the ‘strongest hope’ model [...]—may be our most promising tool for moving the needle on preschool instructional quality” (p. 1). Yet, our findings from this study suggest this emerging research consensus is out of sync, to an extent, with state early education leaders. When presented as a binary choice between global versus content-specific curricula, leaders clearly favor global curricula, such as Creative Curriculum. Yet, when asked about combining the two, leaders were very supportive of using a global curriculum as a base and then layering on content-specific elements. Our findings help inform researchers of the policy landscape they may face in terms of implementation and suggests scholarship is needed on how best to navigate these competing perspectives and best implement a hybrid approach, which appears to have the support of state leaders.

The second key connection between our study findings and current policy discussions regarding early childhood curricula is in terms of aligning professional supports to improve implementation. While the survey data suggested that leaders generally saw strong alignment between professional development and adopted curricula, the interviews painted a more equivocal portrait. This is generally consistent with research on professional development supports for early childhood curricula, which finds the landscape is highly variable in terms of quality (Weiland et al., 2018). For example, research has found that early educators generally receive training through short workshops that take place during school breaks and are not often linked meaningfully with the adopted curriculum (e.g., Joyce & Showers 2002). Through our interviews, we did not find evidence of state leaders suggesting that their states were adopting the aforementioned “strongest hope” model that includes content-specific curricula paired with intensive professional development/coaching and monitoring of child progress (Yoshikawa et al., 2013). Future researchers should target their inquiry on the strongest hope model with early childhood state leaders and program administrators to understand the barriers to adoption of the approach.

6.1. Limitations

There are a number of limitations of the present study that should be noted, and where possible, addressed through future research. For one, our inquiry focused on the perceptions of state leaders of early education. While these leaders are influential and worthy of inquiry given their potential impacts in designing policies and regulations, they are far from classrooms and thus their understanding of practice-based topics should be considered accordingly. Not only does their distance from classrooms likely influence their responses, they are also the individuals often tasked with improving instructional quality and alignment, and thus may paint a more positive picture than exists in reality. Consequently, other scholars using alternative approaches (e.g., surveys of enacted alignment in classrooms) should investigate these topics.

Another limitation is that our focus on providing a national portrait of state leaders, while valuable in terms of generalizability, comes at

the expense of capturing local contextual nuance. In our survey and interviews, for example, we asked about alignment between early education programs, generally, and the early K-12 grades. This forced leaders to aggregate and think about early childhood programs, which may be unique and diverse, as a whole. Our approach was not designed to capture state-by-state nuance in how some specific programs may be more aligned than others. While our interviews provided an outlet for issues like this to be raised, future research focused on specific state contexts is warranted. Last, our sample of interviewees included 12 participants and should not be viewed as perfectly representative of the broader survey sample or state early education leaders writ large.

6.2. Conclusion

There is a keen interest among early education stakeholders to reform instructional policy supports as a lever to improve the quality of early education instruction (Whitaker et al., 2022). This study contributes to this conversation by taking the pulse of where state early education leaders stand on some of the key issues and debates. State leaders have considerable latitude in the design and implementation of policies and regulations regarding instructional policy supports. We hope that this research helps reveal to the research community some of the practical realities facing leaders regarding these topics. Ultimately, affecting meaningful reforms in terms of instructional policy supports in early education will require authentic and coordinated collaborations between researchers, policymakers, and practitioners.

7. Credit author statement

Dr. Michael Little led the conceptualization and writing of the manuscript. Austin Gragson coordinated data collection and qualitative data analysis. He also reviewed and provided edits on the manuscript.

Data availability

The authors do not have permission to share data.

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