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Guest Editorial

# Understanding alignment in children's early learning experiences: Policies and practices from across the United States

There is a broad consensus in the field of early childhood education that enrollment in high-quality PreK – defined in this introduction as a formal, center-based program serving four-year old children – boosts students' math, language, literacy, and social-emotional skills at kindergarten entry (Karoly & Auger, 2016; Phillips et al., 2017). A large and robust literature demonstrating the short-term benefits of PreK has helped to spur substantial expansion of early learning programs across the United States in recent years (Friedman-Krauss et al., 2018). Yet, there is considerable variation in children's PreK experiences with respect to how classrooms are structured, the interactions in which children and families engage, and the quality of instruction delivered (Mashburn et al., 2008; Pianta, Downer, & Hamre, 2016). Moreover, there is limited work to date that has examined how the mode and content of PreK instruction is or is not aligned with children's experiences in kindergarten and elementary school (McCormick, Mattera, & Hsueh, 2019). Accordingly, it has been difficult for the field to identify the key reasons why initial PreK-related boosts in skills tend to diminish as children move through elementary school (Bailey, Duncan, Odgers, & Yu, 2017) — a phenomenon known as *fadeout* or *convergence*. Given these challenges, there is a clear need for early educational practices that both enhance the quality of children's PreK experiences *horizontally* by aligning standards, curricula, and assessments within PreK settings, and support sustained gains by aligning children's experiences *vertically* across the full PreK to third grade period (Stipek, Franke, Clements, Farran, & Coburn, 2017).

This special issue of *Early Childhood Research Quarterly* aims to respond to these needs by reporting on a range of studies from across the United States that were designed to explore factors influencing high-quality learning experiences during PreK and across the transition into early elementary school. The papers in this special issue represent work done as part of the Institute of Education Sciences-funded Early Learning Network, a group of universities and research organizations tasked with addressing critical questions related to children's experiences in PreK through 3rd grade in the United States.[1] In particular, five of these teams (MDRC, University of North Carolina - Chapel Hill, University of Nebraska - Lincoln, University of Virginia, and Ohio State University) were funded to identify malleable factors in children's educational environments that support academic and social-emotional development in early learning and elementary school settings. Each of these teams was responsible for conducting a study at the local and/or state level to document factors related to quality and continuity in children's learning experiences from PreK into elementary school. Complementing the efforts of these five groups, a final team (University of California - Irvine) set out to develop a new measure of PreK to third grade classroom quality with a focus on individual students. In this introduction, we outline how the papers in this special issue contribute to the extant literature on practices being used around the United States to improve early educational quality and enhance alignment in learning across the PreK to third grade period. We conclude by summarizing how the work in this special issue can guide future research, practice, and policy.

## 1. Contributions of the special issue papers to the field of early education

### 1.1. Diverse participants, multiple methods, varied localities

To understand children's early learning experiences, the special issue papers included numerous stakeholder perspectives, including city, county, and district administrators (Iruka, DeKraai, Walther, Sheridan, & Abdel-Monem, 2020, this issue; McCormick et al., 2020, this issue; Purtell et al., 2020, this issue; Cohen-Vogel, Sadler, Little, & Merrill, 2020, this issue); principals or PreK center directors (Iruka et al., 2020, this issue; Purtell et al., 2020, this issue); teachers (Iruka et al., 2020, this issue; McCormick et al., 2020, this issue; Purtell et al., 2020, this issue; Vitiello, Pianta, Whittaker, & Ruzek, 2020, this issue; Connor et al., 2020, this issue); and parents (Iruka et al., 2020, this issue).

To gather information, the papers used a variety of methods: semi-structured interviews (Iruka et al., 2020, this issue; McCormick et al., 2020, this issue; Purtell et al., 2020, this issue; Cohen-Vogel et al., 2020, this issue); surveys (McCormick et al., 2020, this issue; Vitiello et al., 2020, this issue); classroom observations (McCormick et al., 2020, this issue; Vitiello et al., 2020, this issue; Connor et al., 2020, this issue); document review (McCormick et al., 2020, this issue); administrative data (McCormick et al., 2020, this issue); and focus groups (Iruka et al., 2020, this issue). Many of the studies included a large number of qualitative interviews to generate insights into the policies and structures that shape chil-

[1] See more information about the network at http://earlylearningnetwork.unl.edu/.

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dren's transitions from PreK to elementary school, which can then be explored more deeply in future research using qualitative and quantitative or mixed methodologies.

Unlike prior research that has focused largely on urban low-income children in PreK, these studies included children in rural (Iruka et al., 2020, this issue; Purtell et al., 2020, this issue; Cohen-Vogel et al., 2020, this issue), urban (McCormick et al., 2020, this issue; Purtell et al., 2020, this issue; Vitiello et al., 2020, this issue), and suburban (Purtell et al., 2020, this issue; Vitiello et al., 2020, this issue; Connor et al., 2020, this issue) settings across six states, helping to build knowledge about the early learning experiences of children growing up in diverse localities across the country.

### 1.2. Building evidence about children's learning experiences across PreK and elementary school

Results from these studies increase understanding of children's early learning experiences, including the extent to which there is continuity in standards, curricula, instruction, and assessments within grades (horizontal alignment), across grades (vertical alignment), and during the transition between PreK and kindergarten (Stipek et al., 2017). Studies generally found strong horizontal alignment within both PreK and kindergarten (Iruka et al., 2020, this issue; McCormick et al., 2020, this issue; Cohen-Vogel et al., 2020, this issue). For example, PreK and kindergarten teachers in Boston reported working to align curricula and instruction with other teachers in their grade (McCormick et al., 2020, this issue). Teachers in other studies also reported alignment between the standards, curricula, and assessments used in their schools, including between the commonly used Creative Curriculum and Teaching Strategies Gold assessment (Iruka et al., 2020, this issue; Cohen-Vogel et al., 2020, this issue). Although the papers generally found strong horizontal alignment, district and county leaders in one study in rural North Carolina reported a disconnect between the state's kindergarten standards – focused on academic development – and its kindergarten entry assessment, which included a strong focus on social-emotional learning (Cohen-Vogel et al., 2020, this issue).

Studies generally found weaker vertical alignment *across* grades (Iruka et al., 2020, this issue; Cohen-Vogel et al., 2020, this issue; Vitiello et al., 2020, this issue). For example, PreK and kindergarten teachers in Boston were unlikely to report actively working with teachers in earlier or later grades to collaborate and align instruction (McCormick et al., 2020, this issue) and stakeholders in rural North Carolina similarly reported limited alignment of curricula, standards, and assessments across grades (Cohen-Vogel et al., 2020, this issue). Pedagogically, numerous stakeholders reported misalignment between the play-based approaches of PreK and the more teacher-centered instruction of kindergarten (Cohen-Vogel et al., 2020, this issue), although there was one exception in the case of an effort to align developmentally appropriate curricula across grades in the Boston Public Schools (McCormick et al., 2020, this issue). Indeed, direct observations of PreK and kindergarten classrooms across studies suggested increased time in teacher-structured activities in kindergarten relative to PreK (Connor et al., 2020, this issue; Vitiello et al., 2020, this issue). Although research is mixed on the value of child-directed versus teacher-directed time for young children (Chien et al., 2010; Lippard, Choi, & Walter, 2019; Miller & Almon, 2009), the existing literature suggests that these aspects of misalignment could negatively affect children's development (Hamre, Hatfield, Pianta, & Jamil, 2014; Leyva et al., 2015). Beyond curricular and instructional misalignment, one study in a large Virginia school district (Vitiello et al., 2020, this issue) found that kindergarten classrooms also demonstrated less effective teacher-child interactions and fewer ethnically and linguistically diverse teachers than PreK classrooms, which meant children in kindergarten were less likely to experience an ethnic or linguistic match with their own teacher (Vitiello et al., 2020, this issue). Together, these findings highlight a variety of challenges in creating continuity across the PreK and kindergarten years.

Despite generally weak evidence of vertical alignment across the studies as a whole, there were some examples of classroom practices that built on one another across grades in intentional, developmentally supportive ways (McCormick et al., 2020, this issue; Vitiello et al., 2020, this issue). For example, Vitiello et al. (2020, this issue) found that children in kindergarten in a large school district in Virginia spent more time on academics and teachers reported intentionally engaging in more advanced instructional content than PreK teachers; this type of developmental scaffolding has been shown to support children's learning (Claessens, Engel, & Curran, 2014; Engel, Claessens, & Finch, 2013; Engel, Claessens, Watts, & Farkas, 2016). In an implementation study of a model designed to align instruction from PreK through second grade in Boston, nearly three-quarters of schools reported actively working to implement the aligned approach, suggesting that school leaders see value in efforts to create supports for continuity in student learning across the early grades (McCormick et al., 2020, this issue).

Other studies found that there were few practices in place to support children *across the transition* from PreK to kindergarten (Iruka et al., 2020, this issue; Purtell et al., 2020, this issue; Cohen-Vogel et al., 2020, this issue). For example, unless there were concerns about a certain student (Iruka et al., 2020, this issue) or the child had an Individualized Education Plan (IEP; Purtell et al., 2020, this issue; Cohen-Vogel et al., 2020, this issue), teachers reported minimal information sharing across PreK and kindergarten (Iruka et al., 2020, this issue) and kindergarten teachers reported knowing little about children's prior PreK experiences (Purtell et al., 2020, this issue). However, despite varied implementation, there were some transition practices used to support families as they began kindergarten, including holding informational meetings with families, doing home visits, visiting kindergarten classes, and hosting summer programs to help children adjust to elementary school (Iruka et al., 2020, this issue; Purtell et al., 2020, this issue). Such practices can support children's development when implemented well (LoCasale-Crouch, Mashburn, Downer, & Pianta, 2008). In addition, although family-school communication about transitions was limited, family engagement was identified by teachers and parents as a strength within grades (Iruka et al., 2020, this issue; Vitiello et al., 2020, this issue).

### 1.3. Identifying barriers to high quality learning from PreK through third grade

Studies in this special issue identified numerous barriers to high-quality, aligned learning from PreK through third grade, ranging from structural and policy barriers at the macro-level to challenges faced by schools and teachers at the micro-level. For example, a major macro-level barrier was access to high-quality, structurally-aligned PreK programming. Indeed, despite the demonstrated benefits of PreK for children's development (Phillips et al., 2017; Yoshikawa et al., 2013), studies identified limited availability of PreK for four-year old children, particularly in rural areas (Iruka et al., 2020, this issue; Purtell et al., 2020, this issue). There were also limited resources in place – such as professional development for teachers – to support implementation of high-quality programming (Iruka et al., 2020, this issue). Even when high-quality PreK was available, studies identified structural barriers to the alignment of high-quality early learning experiences, including the fact that PreK and K-12 leadership were generally separate at all levels of the systems overseeing these educational contexts. Indeed, the state agencies responsible for PreK and K-12 were found to be siloed (Cohen-Vogel et al., 2020, this issue) and

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there were typically different leaders responsible for these educational levels at the district and school levels (Purtell et al., 2020, this issue). To address this issue, the Boston Public Schools Department of Early Childhood has moved to a PreK to second grade leadership structure, but this approach is still fairly novel in the field (McCormick et al., 2020, this issue).

In addition, most of the studies reported that PreK was implemented across mixed-delivery systems, with both community-based providers and public schools offering PreK programs. Although this structure allowed families to choose from a diverse range of early childhood providers to meet their needs, it also meant that many different PreK programs fed into elementary schools with which they were not co-located, making it difficult to facilitate children's transitions from PreK to kindergarten (Iruka et al., 2020, this issue; Purtell et al., 2020, this issue; Cohen-Vogel et al., 2020, this issue). The limited availability and integration of early learning data systems was also found to hinder efforts to share information about students and their PreK experiences when they entered kindergarten (Purtell et al., 2020, this issue; Cohen-Vogel et al., 2020, this issue). Studies further identified few aligned communication structures across PreK and K-12 – particularly in mixed-delivery systems – posing further barriers to supporting seamless information sharing across contexts and matching appropriate instruction across grades to individual students' skill levels and needs.

At a more micro level, some school and teacher practices were found to hinder alignment of learning for young children. In many cases, PreK programs and schools had autonomy in designing their instructional supports (McCormick et al., 2020, this issue), posing challenges for aligning curricula, standards, and professional development across grades, particularly when multiple PreK programs were feeding into the same elementary schools. Kindergarten teachers also reported reluctance to move from whole-group instruction in favor of small group and center-based learning that was more aligned with PreK instruction, for fear of losing control of the classroom (McCormick et al., 2020, this issue) and leaders reported supporting whole-group instruction as a means of promoting academic rigor (Cohen-Vogel et al., 2020, this issue).

### 1.4. Measuring program quality in PreK and across grades

One Network team from the University of California at Irvine has primarily focused on developing a classroom observation measure that can be used to better understand variation in individual students' classroom experiences from PreK to third grade. This tool – called the Optimizing Learning of Students (OLOS) measure – has shown prior feasibility, reliability, and validity in elementary school grades. In this issue, study authors summarize the feasibility of the OLOS for use in PreK (Connor et al., 2020, this issue). The OLOS represents one of the first attempts to measure individual student experiences *across the transition* from early childhood education to elementary school. Although more research is needed to establish that this tool can predict child outcomes across grades, this measure can facilitate future work examining alignment between PreK and elementary school, and transitions across these contexts.

## 2. Future directions for research, policy, and practice

Overall, the papers included in this special issue shed light on a number of important issues related to alignment of children's early learning experiences and barriers to supportive transitions. In doing so, they highlight several future directions for the fields of early and elementary education. From a research perspective, these studies identify a number of areas where additional evidence is needed to understand policy and practice related to PreK and K alignment. For example, most of the research included in this special issue focused on *barriers* to alignment, with relatively little consideration of the positive facilitators of continuity within and across grades. Furthermore, studies focused on the critical shift from PreK to kindergarten, but generally did not consider alignment beyond the immediate transition to elementary school. Understanding longer-term alignment through and beyond third grade may be particularly important for informing the growing conversation about PreK fadeout and convergence (Bailey et al., 2017). Next, although the work included here considered a variety of processes related to alignment and quality, none included child outcomes. Given often weak associations between PreK classroom quality and child learning (Burchinal, 2018), more research is needed to understand whether and how the policies and practices identified through these studies support or constrain children's healthy development. Finally, despite the diversity of settings and populations included in this research, the generalizability of these findings is unknown. Based on initial evidence of variability in findings both across and within studies, this work highlights the need for additional evidence on the universality of processes, as well as the multi-level factors that may inform heterogeneous outcomes. Such evidence is particularly needed regarding the extent to which these findings apply across systems, including within more complex mixed-delivery systems.

Taken together, these studies serve as a "call to action" for policymakers and others to acknowledge the identified barriers and take steps toward further change. In particular, several papers identified practices that have been successfully used to support the PreK to kindergarten transition for specific subgroups of children, including family meetings for children with IEPs and ensuring a cultural and linguistic teacher-student match for DLLs (Purtell et al., 2020, this issue; Vitiello et al., 2020, this issue). These practices represent obvious candidates for facilitating alignment in a broader array of student populations. Formalized systems for data sharing and communication at all levels (state, district, and school) may be an additional means of breaking down barriers to alignment (Purtell et al., 2020, this issue). Several studies noted the importance of ongoing communication between schools and parents, as well as for systems that facilitate parent-teacher exchanges in the presence of logistical constraints (e.g., language barriers; Iruka et al., 2020, this issue; Purtell et al., 2020, this issue; Vitiello et al., 2020, this issue). Given the omnipresence of computers and tablets in most early educational settings (Iruka et al., 2020, this issue), technology may be particularly useful here, especially if resources can be vertically and horizontally aligned using the same platform. Moving forward, future efforts are needed to explore potential multi-level solutions to the barriers identified in this work and their implications for child outcomes. In doing so, the work highlighted in this special issue can serve as a springboard for improving PreK quality, continuity, and child wellbeing in the United States.

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## References

Bailey, D., Duncan, G. J., Odgers, C. L., & Yu, W. (2017). Persistence and fadeout in the impacts of child and adolescent interventions. *Journal of Research on Educational Effectiveness*, *10*(1), 7–39. http://dx.doi.org/10.1111/cdep.12260

Burchinal, M. (2018). Measuring early care and education quality. *Child Development Perspectives*, *12*(1), 3–9. http://dx.doi.org/10.1111/cdep.12260

Chien, N. C., Howes, C., Burchinal, M., Pianta, R. C., Ritchie, S., Bryant, D. M., . . . & Barbarin, O. A. (2010). Children's classroom engagement and school readiness gains in prekindergarten. *Child Development*, *81*(5) http://dx.doi.org/10.1111/j.1467-8624.2010.01490.x

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Claessens, A., Engel, M., & Curran, F. C. (2014). Academic content, student learning, and the persistence of preschool effects. *American Educational Research Journal*, *51*(2), 403–434.

Cohen-Vogel, L., Sadler, J., Little, M., & Merrill, R. (2020). (Mis)Alignment of instructional policy supports in pre-k and kindergarten: Evidence from rural districts in North Carolina. *Early Childhood Research Quarterly*.

Connor, C., Adams, A., Zagar, E., Wood, T., Hernandez, B., & Vandell, B. (2020). Observing individual children in early childhood classrooms using OLOS: Optimizing learning opportunities for students. *Early Childhood Research Quarterly*.

Engel, M., Claessens, A., & Finch, M. A. (2013). Teaching students what they already know? The (mis) alignment between mathematics instructional content and student knowledge in kindergarten. *Educational Evaluation and Policy Analysis*, *35*(2), 157–178. http://dx.doi.org/10.3102/0162373712461850

Engel, M., Claessens, A., Watts, T., & Farkas, G. (2016). Mathematics content coverage and student learning in kindergarten. *Educational Researcher*, *45*(5), 293–300. http://dx.doi.org/10.3102/0013189X16656841

Friedman-Krauss, A. H., Barnett, W. S., Weisenfeld, G. G., Kasmin, R., DiCrecchio, N., & Horowitz, M. (2018). *The state of preschool 2017: State preschool yearbook* Retrieved from National Institute for Early Education Research website: http://nieer.org/wp-content/uploads/2019/02/State-of-Preschool-2017-Full-2-13-19_reduced.pdf.

Hamre, B., Hatfield, B., Pianta, R., & Jamil, F. (2014). Evidence for general and domain-specific elements of teacher–Child interactions: Associations with preschool children's development. *Child Development*, *85*(3), 1257–1274. http://dx.doi.org/10.1111/cdev.12184

Iruka, I. U., DeKraai, M., Walther, J., Sheridan, S. M., & Abdel-Monem, T. (2020). Examining how rural ecological contexts influence children's early learning opportunities. *Early Childhood Research Quarterly*.

Karoly, L. A., & Auger, A. (2016). *Informing investments in preschool quality and access in Cincinnati* Retrieved from RAND Corporation website: https://www.rand.org/content/dam/rand/pubs/research_reports/RR1400/RR1461/RAND_RR1461.pdf.

Leyva, D., Weiland, C., Barata, M., Yoshikawa, H., Snow, C., Treviño, E., . . . & Rolla, A. (2015). Teacher-child interactions in Chile and their associations with prekindergarten outcomes. *Child Development*, *86*(3), 781–799. http://dx.doi.org/10.1111/cdev.12342

Lippard, C. N., Choi, J. Y., & Walter, M. C. (2019). Profiles of classroom activity settings associated with Head Start children's receptive vocabulary. *Journal of Applied Developmental Psychology*, *60*, 65–75.

LoCasale-Crouch, J., Mashburn, A. J., Downer, J. T., & Pianta, R. C. (2008). Pre-kindergarten teachers' use of transition practices and children's adjustment to kindergarten. *Early Childhood Research Quarterly*, *23*(1), 124–139. http://dx.doi.org/10.1016/j.ecresq.2007.06.001

Mashburn, A. J., Pianta, R. C., Hamre, B. K., Downer, J. T., Barbarin, O. A., Bryant, D., . . . & Howes, C. (2008). Measures of classroom quality in prekindergarten and children's development of academic, language, and social skills. *Child Development*, *79*(3), 732–749. http://dx.doi.org/10.1111/j.1467-8624.2008.01154.x

McCormick, M. P., Weiland, C., Hsueh, J. A., Maier, M., Hagos, R., Sachs, J., . . . & Schick, L. (2020). Promoting content-enriched alignment across the early grades: A review of policies in the Boston Public Schools. *Early Childhood Research Quarterly*.

McCormick, M. P., Mattera, S., & Hsueh, J. (2019). *Preschool to third grade alignment: What do we know and what are we learning?* Retrieved from MDRC website: https://www.mdrc.org/sites/default/files/2019_Pre-K_Alignment_Brief_FINAL.pdf.

Miller, E., & Almon, J. (2009). *Crisis in the kindergarten: Why children need to play in school* Retrieved from Alliance for Childhood website: https://files.eric.ed.gov/fulltext/ED504839.pdf.

Phillips, D., Lipsey, M. W., Dodge, K. A., Haskins, R., Bassok, D., Burchinal, M. R., . . . & Weiland, C. (2017). Puzzling it out: The current state of scientific knowledge on pre-kindergarten effects. A consensus statement. *Issues in Pre-Kindergarten Programs and Policy*, 19–30.

Pianta, R., Downer, J., & Hamre, B. (2016). Quality in early education classrooms: Definitions, gaps, and systems. *The Future of Children*, *26*(2), 119–137.

Purtell, K. M., Valauri, A., Road-Drogalis, A., Jiang, H., Justice, L., Lin, T., . . . & Logan, J. A. R. (2020). Understanding policies and practices that support successful transitions to kindergarten. *Early Childhood Research Quarterly*.

Stipek, D., Franke, M., Clements, D., Farran, D., & Coburn, C. (2017). PK-3: What does it mean for instruction? *Social Policy Report*, *30*, 1–23. http://dx.doi.org/10.1002/j.2379-3988.2017.tb00087.x

Vitiello, V. E., Pianta, R. C., Whittaker, J. E., & Ruzek, E. A. (2020). Alignment and misalignment of classroom experiences from pre-k to kindergarten. *Early Childhood Research Quarterly*.

Yoshikawa, H., Weiland, C., Brooks-Gunn, J., Burchinal, M. R., Espinosa, L. M., Gormley, W. T., . . . & Zaslow, M. J. (2013). *Investing in our future: The evidence base on preschool education* Retrieved from Society for Research in Child Development website: https://www.srcd.org/sites/default/files/file-attachments/mb_2013_10_16_investing_in_children.pdf.

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