NATIONAL Sciences ACADEMIES *Engineering* Medicine

Consensus Study Report Highlights

A New Vision for High–Quality Preschool Curriculum

A high-quality preschool education can foster critical development and learning that promotes joy, affirmation, and enriching learning opportunities that prepare children for success in school and life. While today's preschool programs generally provide emotionally supportive environments, their curricula often fall short in advancing children's learning in math, early literacy, and science, and lack the necessary support for multilingual learners' emerging bilingualism. Additionally, access to high-quality, effective early learning experiences may be limited and inadequate based on factors such as a child's race, location, gender, language, identified disability, and socioeconomic status.

The National Academies of Sciences, Engineering, and Medicine convened a committee of experts to conduct a comprehensive study of preschool curriculum quality for children from ages three to five, with special attention to the needs of Black and Latine children, multilingual learners, children with disabilities, and children experiencing poverty in the United States. The committee's report, A New Vision for High-Quality Preschool Curriculum, articulates a vision for high-quality preschool curricula for all children, grounded in equity and justice-oriented principles from inception to implementation and evaluation.

UNDERSTANDING THE PRESCHOOL CURRICULUM

Curriculum is a critical determinant of the quality and effectiveness of a preschool program, shaping the quality of a child's learning experiences in the classroom. High-quality curricula are wellplanned, research- and evidence-based, and provide the supports to guide early childhood educators on what to teach, when to teach, how to engage children, and how to support adaptation for individual, cultural, and linguistic diversity. This is particularly important where



educators have had minimal teacher preparation, do not have deep content knowledge, little classroom support, or have a wide range of abilities, cultures, and languages among the children in their classrooms.

Today's preschool curricula often fall short in offering children rich content and in advancing children's thinking. Most preschool programs, including Head Start and state preschool programs, use comprehensive preschool curricula—often required by their funding agencies—that intend to address all domains of children's learning and development. However, the most widely used of these have been studied and found repeatedly to be significantly less effective than playful domain-specific curricula in improving children's academic and social-emotional outcomes in the targeted domains.

Evidence suggests that coherently combining different evidence-based, domain-specific curricula or integrating domain-specific curricula into comprehensive curricula to support all domains of children's learning may yield positive impacts on children's learning. These findings highlight the need for a vision to guide the development of new and a refinement of existing curricula.

ADDRESSING INEQUITIES

Many children from populations that have been historically marginalized—specifically Black, Latine, and Indigenous children; multilingual learners; children with disabilities; and those living in poverty—lack access to these critical early learning opportunities. Even when low-income and racially and ethnically marginalized children do have access to preschool, they are more likely than their White, higher-income peers to be enrolled in programs that are underfunded and have less qualified teachers. Furthermore, the diverse voices, experiences, strengths, and needs of these children, families, and workers from marginalized communities have not been considered in establishing standards and goals for highquality learning experiences.

Effective preschool curriculum that is well implemented has been shown to help reduce disparities in

mathematics, language, literacy, and social-emotional skills seen at kindergarten entry, particularly for Black and Latine children and for children living in poverty. A limitation of most studies of preschool curricula is that they typically assess children's growth only in English, thus discounting the linguistic strengths and potential of multilingual learners.

A NEW VISION FOR PRESCHOOL CURRICULUM

High-quality preschool curricula must consider the learning experiences that each child has access to, the varied opportunities to experience engaging content that can spark their curiosity and desire to learn, and the ways in which teaching and learning can be adapted to support the child and their individual strengths and needs.

Research shows that a high-quality preschool curriculum should:

- Incorporate the perspectives, experiences, cultures, languages, strengths, and needs of a diverse range of children, families, and workforce settings;
- Include rich and meaningful content that centers child engagement and agency;
- Include well-designed learning experiences, intentional responsive teaching strategies, welldefined objectives and outcomes, embedded formative assessments, and differentiation based on understanding children's ability levels, cultural and linguistic backgrounds, interests, and dispositions;
- Have a scope and sequence that follow children's ways of thinking and learning with research– validated learning trajectories, are culturally and linguistically affirming, and include effective supports for children with disabilities; and
- Demonstrate effectiveness in yielding positive school and life outcomes for the children and families they are intended to reach.

RECOMMENDATIONS TO ADVANCE THE VISION

The report's recommendations fall across four categories:

Equity-Driven Preschool Curricula: Guidance for Content Design, Development, Selection, and Implementation

Moving forward, curricula need to be reviewed, revised, and developed to align with the committee's vision and take into account the diverse lived experiences of children throughout their early years, as well as their family contexts, which profoundly shape how and what they learn, and their environments, which serve as rich sources of learning.

In the next five years:

- Federal agencies, state and school district policy makers, foundations and funders, publishers, and teacher educators should support the revision of existing curricula and development of new curricula to align with the committee's vision.
- Program leaders should transition to adopting and implementing evidence-validated curricula that, when integrated coherently, support the learning and development of the whole child and address outcomes such as children's creativity, positive identity, curiosity, and emergent bilingualism.
- Researchers and curriculum developers should encourage the development and evaluation of appropriate criteria and metrics for assessing racial, cultural, linguistic, and ability biases and outcomes.
- Funders should support the development of new, or revision of existing, child assessment measures aligned with the committee's vision that consider the role of bias (e.g., race, language, culture, disability status) and capture the full range of meaningful child outcomes and experiences.
- From the outset, curriculum developers, in partnership with researchers and teacher educators, should develop curricula and supporting materials

in Spanish, English, and other languages commonly spoken by children with a home language other than English.

Empowering Educators: Supports and Professional Development for Equitable and Effective Curriculum Implementation

Providing educators with the professional development and supports they need to develop warm and affirming relationships with all children; ensure inclusive, prosocial peer interactions; and provide consistent, supportive, and proactive management of the overall classroom social environment is an integral component of curriculum reform.

- Curriculum developers should incorporate resources and structures that help teachers gain knowledge about effective teaching strategies and practices, including bolstering content knowledge and understanding how children's thinking and learning can be best supported. They should also provide scaffolded supports, developed in partnership with researchers and teacher educators, that increase opportunities for effectively integrating children with disabilities in general education early childhood settings while effectively meeting their unique developmental needs and fostering healthy peer relationships.
- Early childhood educators should collaborate with families to co-construct curricular components that are meaningful and relevant for all children in the classroom; authentically elevate the role of families in supporting their children's development, recognize the diversity in and value of family practices and integrate these practices when possible; honor their languages, cultures, beliefs, traditions, and talents; and invite these assets into the classroom.
- Program leaders and policymakers should ensure that educators receive professional development, regular in-classroom coaching, and access to the materials that are necessary for the implementation of evidence-based curricula.

Investing in Equity: Funding Mechanisms, Policy Strategies, and Innovations to Support Selection and Implementation of Effective Preschool Curricula

Expanding access to high-quality preschool experiences is a multifaceted endeavor, which will include establishing a robust infrastructure for continuous assessment, monitoring, and improvement as well as research funding to inform curriculum development and optimal program practices, the creation and enhancement of workforce support and development, and initiatives to promote the widespread adoption of highquality, evidence-based curricula.

- The U.S. Department of Education, in partnership with the U.S. Department of Health and Human Services and state early childhood education agencies, should
 - create a research-practice-partnership network of diverse researchers and early childhood programs that are willing to engage in research to study curricula and practices aligned with the committee's vision;
 - create a data system for capturing details on curricula being used in programs, along with characteristics of the children being served, the quality of programs, and a comprehensive set of outcomes;
 - align quality metrics, measures, and rating systems with the new vision of curricula and associated practices;
 - incentivize the adoption and use of high-quality curricula that align with the new vision; and
 - provide quality improvement supports and resources for addressing equity and inclusion gaps.
 - As curricula aligned with the committee's vision are adopted and implemented, state and local early care and education agencies and public education institutions should:

- Develop policies, provide technical assistance, and target funding to support ongoing professional development for educators and address high staffing turnover rates experienced across the country in early childhood programs; and
- Identify opportunities to expand children's access to schools, communities, and programs that implement these curricula and associated practices.

Bridging the Knowledge Gap: Creating an Evidence Base to Advance Curriculum Development and Implementation

A crucial component of reimagining preschool curricula is ensuring there is a solid evidence base that supports the new vision. The report recommends rigorous evaluations of curriculum approaches and an investment in ongoing research to inform the development and evaluation of curricula.

- In the next five years, publishers should collect and provide rigorous and meaningful evidence of improved short- and long-term academic and developmental outcomes for all children, with particular attention to Black, Latine, Indigenous, Asian, and Pacific Islander children; multilingual learners; children with disabilities; and children living in poverty. They should also document the experiences of children in grades K-2 and determine whether there is coherence in the curricular vision across the transition from preschool to these early grades.
- Researchers should continue to conduct rigorous evaluations of curriculum approaches, along with implementation research, to assess the extent to which curricula promote children's holistic and healthy development and learning.
- Over the next 5–10 years, relevant federal agencies, states, and philanthropy should invest in ongoing research aimed at developing implementation systems to support the transition to evidence-based curricula that are practical and accessible.

A RESEARCH AGENDA

Despite the large body of evidence on the lasting positive effects of high-quality preschool, there is less knowledge about the key role and efficacy of curriculum. Curricula are difficult to evaluate as a separate variable because implementation varies considerably depending on teacher preparation, relationships with children, the quality of the learning environment, the individual strengths and backgrounds of the children, and their social, cultural, and linguistic contexts. The report calls for a comprehensive research agenda to gather evidence on preschool curriculum, creating resources to better understand and document study conditions of curriculum effectiveness; standardizing approaches for examining, reporting, and interpreting potential sources of curriculum effect heterogeneity; and organizing large-scale studies that coordinate multiple teams of researchers to address questions of critical scientific and policy relevance.

PRIORITIES FOR THE FUTURE

While curriculum in and of itself will not solve all of the challenges faced in early education—from inadequate funding and limited workforce preparation to larger social and economic inequities—it is critical to shaping the quality of a child's learning experience in the classroom. High-quality preschool curricula can help ensure that children, through their interactions with teachers, other adults, and children in the learning environment, experience equitable, safe, healthy, affirming, and enriching learning opportunities that promote success in school and life.

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FOR MORE INFORMATION

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