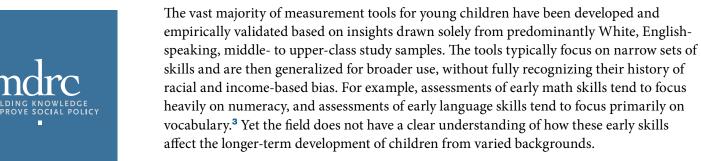# CHALLENGE AND OPPORTUNITY

Equitable Pre-K Measures for Early Learning

Research shows that high-quality pre-K can have lasting impacts on children's learning and development, with the largest effects clustered among children of color, multilingual learners, and children experiencing poverty.[1] Yet policymakers, administrators, and teachers often wrestle with the complexities of providing these programs on a large scale and in rapidly evolving contexts. This can undermine opportunities to close income and racial inequities in early learning.

A key challenge is the lack of reliable, unbiased data about children's skills, knowledge, behaviors, and classroom experiences—information that could guide teacher practice and inform investments in early learning systems. The COVID-19 pandemic has underscored the pressing need to collect this type of data as part of the normal operation of pre-K systems. As the nation emerges from the pandemic, in-person pre-K activities have resumed with scant information about how children fared over the past year and a half. This limits how instruction and support can be effectively aligned to meet the needs of teachers and the young children they serve.

The routine collection of such information on a scale large enough to appropriately answer questions about what works and why, for whom, and under what conditions, is critical to the future of effective and equitable pre-K programming. MDRC, in collaboration with Substantial, a human-centered design firm, and with funding from the Bill & Melinda Gates Foundation, is leading an initiative aimed at shifting the data landscape across the early learning and pre-K field. Here are some starting points the team will examine with states, districts, other pre-K providers and researchers.

Reimagine the tools used to measure children's early learning skills with an equity-centered framework. How children learn and develop is intertwined with race, ethnicity, culture, and sociocultural contexts.[2] Yet, unlocking the power of data requires deep critical thinking about the strengths and limitations of existing measurement tools in acknowledging children's backgrounds.

The vast majority of measurement tools for young children have been developed and empirically validated based on insights drawn solely from predominantly White, English-speaking, middle- to upper-class study samples. The tools typically focus on narrow sets of skills and are then generalized for broader use, without fully recognizing their history of racial and income-based bias. For example, assessments of early math skills tend to focus heavily on numeracy, and assessments of early language skills tend to focus primarily on vocabulary.[3] Yet the field does not have a clear understanding of how these early skills affect the longer-term development of children from varied backgrounds.

On the other hand, for example, research using data from the Institute of Education Sciences' Early Childhood Longitudinal Study found that early oral narrative skills—measured by parent reports as well as by assessments of children asked to retell stories they had just heard—were highly predictive of Black children's literacy skills by age 5.[4] However, such narrative skills often are not assessed in pre-K studies, ignoring a potentially meaningful, culturally relevant pathway to support early learning. These fallacies of measurement—especially when used to document disparities in children's skills by race, ethnicity, and socioeconomic background—only serve to reinforce "White as normative" narratives about children's learning, and limit the field's ability to support instructional and educational opportunities for young learners with different backgrounds.

Reassess the relevance of existing tools used to measure children's pre-K classroom experiences. In contrast with child assessment instruments, there are widely used observational tools that measure classroom quality, such as the Classroom Assessment Scoring System and the Early Childhood Environmental Rating Scales. These measures are beneficial in that they focus on the overall organization, climate, and quality of interactions between teachers and children in the classroom as a whole. However, despite their strengths, neither measure has been consistently linked with gains in pre-K children's learning and development.[5]

In fact, many people have argued that these types of "whole classroom" measurement tools may not fully capture investments, experiences, and opportunities that are crucial to meaningfully support historically marginalized early learners. Established classroom observational tools, for example, fail to measure markers of disparity across pre-K settings, including program expenditures and allocation of resources, and the quality and implementation of curricula, materials, and professional development support.[6]

Existing measurement tools also do not capture the use of culturally responsive pedagogy, such as inviting children to explore and share their own social, cultural, and ethnic identities, or addressing themes of social justice and equity.[7] In addition, these measurement tools typically do not assess the extent to which teacher bias exists. For example, in a study of how teachers and trained independent observers rated student behavior, teachers tended to rate Black children as being less socially competent than observers did rating the same behaviors.[8] This may be particularly important to capture, given that prior research points to implicit teacher bias as a contributing factor in the disproportionate expulsions of Black boys in pre-K.[9]

In addition, many classroom measurement tools do not generate sufficient information about teachers' instructional practices and activities. This might include children's agency, engagement in small group activities, language-rich exchanges between teachers and children and children with each other, and the delivery of rich content—or background knowledge and information—as a mechanism for teaching literacy and math skills. All are thought to maximize children's early learning in pre-K.[10]

Thus, it is likely that using existing measurement tools alone assesses only a fraction of pre-K children's skills, knowledge, behaviors, and classroom experiences that are fundamentally relevant for longer-term academic success and competencies.[11]

Explore technology developments to invest in more readily scalable tools. One barrier to analyzing data on a large scale as part of normal pre-K operations is the high burden of collecting student data using multiple existing assessment tools. This includes the cost of administering the tools, training data collection staff, performing data entry, and analyzing the resulting data. More often than not, data collection protocols are complex and arduous, making them difficult for pre-K teachers to administer. Pulled by instructional priorities and demands in the classroom, teachers cannot realistically devote sufficient time to being trained in order to ensure that information is captured on a consistent, ongoing basis.

One of the bright spots emerging from the COVID-19 pandemic is innovation around the use of technology-based tools in pre-K classrooms. The COVID-19 context has dramatically shifted comfort levels with and access to technology in pre-K settings. This includes the expanded use of videoconferencing, tablet-based applications for school-home communication, and other innovative instructional supports. Additionally, there may be untapped opportunities in recent advancements such as speech and voice recognition and artificial intelligence interfaces, which can help connect teachers and families. Such developments can also enhance the scalability of measurement tools by reducing burden, improving participant engagement and experience, and increasing data quality and reliability. Using these tools could ultimately yield new opportunities for increasing the availability of data, the breadth of information collected, and the use of data to address what works and why and inform continuous pre-K program improvement.

Ensure that timely, reliable, and relevant information is accessible to pre-K administrators, teachers, and families to guide equitable educational opportunities and experiences for young learners. The interests and priorities of multiple stakeholders in the pre-K field must be included in the effort to collect information on children and classrooms. Even so, these perspectives are only relevant if they can be used to guide and generate actionable improvements that directly benefit young children and authentically align with their needs. Ensuring clear, timely feedback and information-sharing among teachers and families is critical so they can learn and benefit from the data being collected.

To date, states, districts, and other pre-K providers have relied on inconsistent batteries of classroom and child-outcome measurement instruments, making it challenging to draw practical implications to guide policy, programming, and practice on a large scale. Teachers, for example, typically monitor children's learning over the course of a year so they can tailor instruction to children's strengths and needs. However, these data are not typically recorded in an accessible way that allows for reliable comparisons across different pre-K classrooms and programs. Frequent, systematic collection of surveys or brief, validated assessments with families and teachers may generate timely information about children's development, particularly as circumstances and contexts evolve.[12] This in turn can be used to develop concrete recommendations for how teachers can tailor engagement and classroom activities to the needs of families and children. The information may also provide insights about teachers' and families' lives that can inform more equitable solutions aimed at strengthening pre-K systems for children in underfunded communities.

LOOKING AHEAD: APPLYING AN EQUITY-CENTERED FRAMEWORK TO STRENGTHEN PRE-K CHILD AND CLASSROOM MEASUREMENT TOOLS

The quest to expand pre-K access and to build equitable, culturally responsive pre-K systems nationwide requires significantly shifting and expanding the data landscape. It calls for long-term investment and a multipronged vision that begins with a deep understanding of the strengths and limitations of existing measurement tools. It also requires stakeholders to explore further the aspects of children's early learning environments and skills that should be assessed as well as how the measurement tools are designed and used.

The MDRC-led initiative is building from an equity-informed, culturally responsive framework to prioritize the perspectives of teachers, administrators, and policymakers, as well as families and young children from historically marginalized communities.[13] The team hopes to identify opportunities to reimagine child assessment and classroom observational tools and to enhance how these tools can equitably assess early learning experiences and outcomes. The aim is to broaden and strengthen the information that can be used to meaningfully support pre-K systems and the development of children—not just in pre-K, but throughout elementary school and beyond.

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