

Early Childhood Assessment Policies and Practice in the Age of Accountability

CORE CONSIDERATIONS FOR SYSTEM DEVELOPMENT



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ABOUT HELIOS EDUCATION FOUNDATION

Helios Education Foundation is dedicated to creating opportunities for individuals in Arizona and Florida to achieve a postsecondary education. Our work is driven by our four fundamental beliefs in Community, Equity, Investment, and Partnership, and we invest in initiatives across the full education continuum.

Through our Florida Regional Student Success Initiative, Helios is helping underserved, minority and first-generation students from the state's large population centers in Miami, Orlando and Tampa achieve a postsecondary education. In Arizona, where Latino students comprise the largest percentage of the K–12 public school population, the Foundation is implementing its Arizona Latino Student Success initiative focused on preparing all students — especially students in high-poverty, underserved Latino communities — for success.

Dear Colleague,

At Helios Education Foundation, we focus our investments across the entire education continuum, from early grade success through postsecondary education. Every step in a child's education journey prepares him or her for the next challenge, and getting a strong start in the early grades is important for future academic success.

This policy brief looks at the role of early childhood assessments as part of states' broader efforts to ensure that young children are arriving at school ready for success and proficient in reading by the end of 3rd grade. Based on two convenings on building assessment systems for early learners, this brief is designed to cover the key decision points educators and state officials make when developing a comprehensive early childhood accountability system.

Policymakers and those who influence education policy have several issues to consider regarding early childhood assessment. Not only should assessment instruments provide useful information on what children know and can do, but they should also inform teacher practice and professional development, and be relevant to the work teachers do in the classroom every day.

When the measures used to assess young children's learning and development are disconnected from assessments used in K-3, teachers in early childhood programs and elementary grades are less likely to have a common language with which to communicate about children's growth and development. Aligning birth-5 and K-12 assessment systems, however, provides education leaders and policymakers with a greater understanding of which strategies and teaching methods are better preparing children for the early grades and setting them on a path toward success throughout their entire K-12 journey.

Assessment tools should be valid, reliable and developmentally appropriate. That means that they recognize that not all children acquire skills on the same timeline. Baseline and follow-up assessments can help teachers target children's individual learning needs and see whether they overall are making progress toward standards and benchmarks. With our focus at Helios on improving education outcomes of first-generation, minority and under-represented students, we also believe that assessment instruments should be available in multiple languages, should accommodate dual-language learners and should be culturally sensitive.

Ultimately, the goal of an early childhood accountability system should be to choose assessments that can be used across different early-childhood education programs, to help teachers improve instruction and to provide policymakers with information on whether their investments in early learning are effective.

We hope this brief is a valuable contribution to your state's efforts to develop an assessment and accountability system that guides teachers' work with young children and forges stronger connections between the many settings in which young children learn and the K-12 schools that they will attend.

Sincerely,



Vince Roig
Founding Chairman
Helios Education Foundation

A handwritten signature in black ink that reads "Vince Roig".



Paul J. Luna
President & CEO
Helios Education Foundation

A handwritten signature in black ink that reads "Paul J. Luna".





EXECUTIVE SUMMARY

As Helios Education Foundation works toward strengthening early childhood systems, the Foundation recognizes the importance of aligned and coordinated assessments both within the age range of birth to five and continuing through grade three. To share best practices and engage national experts and thought leaders on the topic of early childhood assessments, Helios has hosted two convenings to examine issues surrounding building comprehensive statewide assessment systems for early learners. The following is the second in a set of education briefs focused on early childhood assessments. The brief describes how states can make continued efforts toward ensuring children arrive at kindergarten ready to succeed and on track to read at grade level by the end of third grade.

This brief is designed for influencers of public policy. It addresses key decision points that must be contemplated in designing or refining child assessment protocols within the broader early learning accountability system. It is not intended to contribute to the scientific or academic body of literature on early childhood development. Rather, it is developed to serve as a practical guide to inform planning and decision-making on public policy for developing a child assessment system.

This work builds off of the 2008 National Research Council report *Early Childhood Assessment: What, Why and How* and a related brief *Early Childhood Assessments: Focus on the Child* (Winton & Buysse, 2015) that outline specific guidance on the purpose of child assessment and on selecting child assessments used for developmental screening, diagnostic assessment and program evaluation.

As state leaders engage in conversations about early childhood assessment system development, there are many important factors to contemplate. With limited resources, there is significant benefit from streamlining and refining assessment practices. This work should not add to existing child assessment protocols, but rather be used either to develop a singular child assessment system within a larger accountability framework, or to replace complicated and burdensome assessments.

When contemplating the development or refinement of an early childhood assessment system, each state should clearly define expectations for child assessment to include:

- the clear intended purpose of child assessment with a focus on developmentally appropriate learning gains;
- attributes for tool selection that provide guidance on procurement policies;
- an implementation schedule and protocols including frequency of data collection and timeline for training to reliability;
- a methodology for collecting and analyzing data that defines reporting requirements; and
- a budget, including cost analysis, for purchasing material, sufficient training for reliability, technology for use and data system management.

While policymakers seek outcomes from early childhood program investments, it is important to establish protocols that: 1) improve early childhood instructional practices and increase opportunities for children to enter kindergarten prepared to be successful and achieve early grade success; and 2) can be used as appropriate accountability measures for state investments.



Introduction

Early learning is trending. Follow the hashtags and media hits, and there is a decisive buzz around the merits of focusing on the first eight years of life. Whether it be about the critical importance of third-grade reading proficiency, the startling documentation of the achievement gap at 18 months of life, or statistics related to the rapid rate of brain development in the early years — there is growing momentum behind early learning issues. Science has demonstrated the critical importance of high-quality early education and the opportunity for successful outcomes, particularly for children at greatest risk of school failure.

However, there is a considerable disconnect between public policy — that is the laws and rules governing early learning programs — and implementation of interventions that support better child outcomes. What is known from science and practice is seldom reflected in law. The divide is more understandable when we factor in the approaches recommended by empirical study versus the practical reality of fiscal constraints and the complexities of large-scale implementation.

While there is a growing track record of more conservative leaders taking the lead on early learning investment, there are still pervasive perceptions that early childhood

investments fall outside the lines of where government should be involved. Early childhood investments are often thought of as notions of liberal idealism, when in truth, there are proven economic benefits and accountability principles that align well with conservative approaches to public policy.

The work of developing an assessment system is complex and even more so when factoring in the increasing reliance of policymakers that use accountability results to inform funding decisions. Child assessments are frequently implemented as a requirement of specific funding streams, often creating uncoordinated requirements that can be cumbersome to administer and do not contribute to improved teacher practice or broader understanding on the impact of different program attributes. Further, in the context of high-stakes accountability, there is the reality that “teaching to the test” may contribute to inappropriate teaching practices.

The work is complex to be sure, but there are key tenants that can guide the design and implementation of early childhood assessment systems and responsibly facilitate the delicate balance between quality, practicality and accountability.

It is important to note that there is no magic bullet. If the solution were simple, or even clear, the early childhood field would be consistently implementing a singular child assessment system model. This brief seeks to challenge thinking, contemplate possibilities and offer perspective on key elements that should inform any strategies for more effective public policy for child assessment.

Accountability

While the question “does the quality of early learning programs matter?” was answered long ago, researchers, systems experts and policymakers grapple with designing and implementing scalable strategies that include focused, effective investments that result in positive outcomes for children, particularly for those at greatest risk of school failure (Campbell, Ramey, Pungello, Sparling, & Miller-Johnson, 2002; Helburn, 1995; Schweinhart, Barnes, & Weikart, 1993; Vandell & Wolfe, 2000).

Unlike K–12 and higher education, which are primarily funded by government investment, families bear the majority of the cost of early learning programs; this cost comes at a time when families can least afford it, as they are at the beginning of their earning capacity and increasingly require two incomes to pay for basic expenses. The cost of early learning programs for most families is the second-highest expense next to their rent or mortgage (Child Care Aware of America, 2015).

The federal government and states have contributed significant funding to supplement early learning costs, primarily through tuition subsidies for financially eligible parents, prekindergarten programs or a combination of both. This approach offers dual benefits: 1) an important economic driver to ensure families can work; and 2) children have access to high-quality educational settings that provide them with a foundation for future school success. Even with the existing investments — and the significant work states are doing to strengthen their early learning systems — there are still considerable funding limitations on public investments. State early childhood systems therefore have limited ability to consistently implement quality standards, let alone document outcomes.

As states make difficult decisions about where to place limited revenue overall and how to strengthen early childhood investments specifically, it is understandable to want early childhood assessment measures that document

the impact of early investment. Even with the fiscal and structural challenges of most early learning systems, it is critical to develop responsible accountability systems that document impact and inform additional investments over time. However, if decisions on the accountability of early childhood investments are made solely on the documentation of immediate child gains or later school outcomes, there could easily be missed opportunities and potential unintended negative consequences.

Whether child assessment is for a targeted population such as children served by a specific funding stream (e.g., child care subsidies), or universal programs such as some states’ prekindergarten programs, it is inappropriate to use child data as the sole determinant for accountability. Child assessment decisions must factor in the broader early learning system. While this brief focuses primarily on child assessment, if early learning systems and investments are to influence child outcomes, intuitively it makes sense that a strong accountability system not only include child assessment data, but also measures related to teaching practices and programmatic quality.

- **Teaching Practices** — Recognized as the single best predictor of child outcomes, teacher–child interaction results provide information directly back to teachers on opportunities for focused improvement. These results should further inform a professional development framework for teachers by identifying specialized training opportunities to increase knowledge and improve classroom practices.
- **Programmatic Quality** — There are also benefits to assessing programmatic indicators of quality in an accountability system — measurements that often include accreditation, curricula, evaluation of the learning environment, adult to child ratios, teaching credentials and ongoing professional development, and family engagement.

Most states organize this multi-faceted assessment of teaching practices and early childhood program quality under a quality rating improvement system (QRIS), which rates early childhood programs, typically on a scale of one to five stars like hotels or restaurants, to provide

a clear, quality improvement path for programs along with ratings that help families identify and select higher quality sites. A number of states have alternatively implemented quality improvement systems (QIS), which use the same structure without the rating. Increasingly states are aligning performance within these systems to child care tuition subsidy reimbursement rates in order to differentiate payments based on levels of quality.

Regardless of the structure selected, teacher, program and child assessments combined create a comprehensive, organized early learning system of standards that coherently organize this data for teachers and policymakers to measure child progress within the context of quality. As states work to refine quality systems for efficiency and effectiveness, focused work on the role of a child assessment system is critical.

While not a simple proposition, it is possible to develop a child assessment system that: 1) prioritizes assessment goals and identifies a focused measurement system to be used across funding streams; 2) has maximum impact to inform daily interactions teachers have with children; and 3) helps policymakers discern the effectiveness of early learning investments.

Building a Child Assessment System

The value of child assessment for both the child and teacher can be negatively limited if assessment practice is thought of only in terms of individual funding streams/ programs in isolation; this can lead to a myriad different (sometimes conflicting) assessments within a single program that receives funding from multiple sources. Such a scenario stretches the limited capacity of early learning programs as well as state funding.

Implementing a unified and coordinated system of child assessment across multiple funding streams and programs offers many benefits. Policymakers and funders are able to evaluate the impact of different initiatives using consistent, developmentally appropriate measures. Collecting the same data across programs, such as Head Start, prekindergarten, and kindergarten, enables teachers to enhance the services individual children receive and share data with appropriate parental permission as children transition to other programs and grades. Initiatives can also share aggregated data across funding streams to inform broader program and policy decisions and opportunities for improved coordination and children's success in early grades.

Readiness Gap

Third-grade reading proficiency and kindergarten readiness have become key benchmarks for assessing a child's abilities to be successful in the early grades and do well in fourth grade and beyond. Yet, approximately one in three children arrive at kindergarten without the basic skills needed for success. Research shows that the achievement gap starts with an opportunity gap: Children from low-income homes hear as many as 30 million fewer words than their more affluent peers (Hart & Risley, 1995) and 61 percent of children from low-income backgrounds have no children's books at home (Campaign for Grade Level Reading, n.d.). Early language and engagement lags have been documented as early as 18 months, and, by age two, low-income children are already behind their peers in listening, counting, and other skills essential to literacy (Halle, et al., 2009).

These early gaps often become growing, glaring differences in preschool on key skills such as the words children understand and speak, listening and comprehension abilities, and early counting. By age five, a typical middle-class child recognizes 22 letters of the alphabet, compared to nine for a child from a low-income family.

To address developmental gaps and build a system that supports positive child outcomes, the science of child development can be used to determine areas of focus for measurement that best predict later school success.

There are additional important considerations for building an assessment system, including:

- **Leadership Priorities:** Understanding the priorities and expectations of policymakers and the broader political landscape is essential to the development of a child assessment policy. While it may vary greatly from state to state, at any given time there are political "buzz words"



that result in favorable activities, as well as lightning rods that can detract from support. Additionally, differences in vocabulary used by stakeholders on the same subject matter can cause confusion. Understanding the philosophical underpinnings of legislative and state leadership provides perspective on approach, framing and expectations for accountability.

- **Relevancy:** Too often, accountability measures and expectations do not resonate with the early childhood teacher. Child assessment data can focus on very discreet areas of development, or results may not be provided in an actionable format that can inform teachers' practice and daily work with children. Without understanding the purpose or having an appreciation for the value of the data collected, the teacher is unlikely to use the data in a meaningful way. All too often this problem is compounded by different funding streams requiring different and multiple assessments, resulting in further confusion, frustration and detracting from time and focus on individualizing instruction. However, when measurement and data is relatable, shared and useful to the teacher, it can become a powerful source of information to support children's development.
- **Early Learning and Development Standards:** All states now have early learning and development standards that provide guidelines for what young children should typically know and be able to do at specific ages. The standards include the domains of cognitive development and general knowledge, physical and motor development, social-emotional

development, language and literacy, and approaches to learning. These standards should be aligned with state performance benchmarks in kindergarten and the early grades, providing detailed early childhood developmental milestones that align to academic benchmarks in elementary school and beyond. This alignment provides an opportunity for increased coordination in developmental and academic expectations and consistency of measurement across educational programs aligned to relevant professional development.

- **Age Span:** Assessment systems can be designed to encompass children from birth to third grade. However, with differences in local delivery systems, deeply embedded K–12 assessment systems and limited funding combined with limited early childhood assessment capacity, this approach may not be pragmatic. Depending on the accountability structure and leadership priorities within each state, it may be more feasible to design child assessment systems focused on birth to kindergarten, prekindergarten to third grade or age three through kindergarten. In any of these approaches, emphasis should be placed on alignment of data and desired outcomes. While it may seem most conceivable to contemplate accountability for early learning separate and apart from K–12, this can add to the current education silos in both funding and higher education. Recognizing the research that identifies kindergarten readiness as a determinant

of early learning success, there is great benefit in developing an early childhood assessment system that aligns birth to five programs and the K–12 system — specifically grades K–3.

- **Sample Size:** If every child is assessed formally in third grade and every child is assessed upon kindergarten entry, there may be an expectation that every child should also be assessed in early learning programs. Evaluation experts state that it is not necessary to assess all children. If the desired outcome is to know generally that early learning programs positively impact child outcomes, child assessment data can be collected on a representative sample of children versus all participants. Setting parameters around a sound sample-size methodology can provide important information to policymakers and sufficient evidence of child learning gains without encumbering massive resources. However, from a political vantage point, sampling may not be feasible. Policymakers may understandably want assurances that each child funded with public dollars is making annual learning gains. This approach has the added benefit of collecting data that informs instruction and supports individualized planning for children’s development. If the expectation is that every child be assessed, refining the scope of developmental domains assessed can make the assessment process more manageable.

- **Data Collection:** In the public policy realm, there is often discussion and debate on the best approach for collecting data — that is a third-party assessor versus the early childhood teacher. If the assessment tool is valid and teachers are trained to reliability, there are many benefits associated with assessment conducted by teachers. Children, particularly young children, do not always demonstrate developmental skills or knowledge on command. This is especially true if children do not know the assessor. Teachers have more knowledge on children’s development and can recognize when a child may not be demonstrating specific milestones in the assessment process. Teachers can also use the assessment results to monitor children’s development and create individualized lesson plans that align teacher practices to children’s specific developmental needs.

Child assessment data is most meaningful if collected a minimum of three times per year. This allows for the teacher to collect a baseline to inform program direction, complete a mid-year assessment to determine areas of improvement and areas of continued need, and conduct a year-end assessment to document learning gains. More importantly, ongoing assessment throughout the year



is considered ideal practice as it allows for real-time data not only inform instruction but to differentiate instruction for each child. This frequent data collection also provides the opportunity for the teacher to engage the family by sharing activities that will support the child’s learning at home.

- **Professional Development:** Coordinated and specialized professional development plans are essential for successfully implementing a child assessment system. Professional development offerings on the assessment tool(s), alignment to curricula and practical use for individualizing instruction reinforce teacher understanding of the purpose, use and benefits of the child assessment system. Additionally, coordinating professional development offerings for teachers across age spans provides shared learning opportunities that enable teachers to better understand standards and expectations on the full developmental continuum of children.
- **Role of Program Assessments and Related Data Predictive of Child Outcomes:** Tools such as curricula, program assessments, specialized professional development and other teacher characteristics are all key inputs essential for implementing high-quality programs that support positive child outcomes. Numerous program assessment tools have extensive

results that show a strong correlation between improved scores and better child outcomes. Extensive research identifies the importance of the education of key teachers, access to professional development and the use of evidenced-based curricula to be correlated with improved child outcomes. While this data alone may not be seen as sufficient for policymakers seeking confirmation of a direct impact on children, these indicators of quality, combined with child assessment, provide a logical systems approach for supporting the development of children.

The Focus of Child Assessment

Selecting a specific child assessment tool is by far the most complicated and critical decision in the development of a child assessment system. Skilled early childhood teachers have knowledge of the full continuum of children's physical, emotional and cognitive development and apply this knowledge to scaffold and support children's early learning experiences. Practically, however, it can be very challenging to assess the full developmental continuum of every domain for every child. While it is best practice, this is both expensive and complicated and exceeds the capacity of most early learning systems and budgets.

Given that assessments for all domains of school readiness may be impractical, limiting the scope of the assessment requires identifying the most beneficial areas of development on which to focus. Practical time, cost and capacity considerations often force the decision, and the resulting emphasis is often on language acquisition and emergent literacy.

With good reason, there is a premium put on literacy. Proficiency in reading by the end of third grade enables students to shift from learning to read to reading to learn, and to master more complex subject matter they encounter in later grades. Research shows that reading proficiency in fourth grade is predictive of long-term school and life success; 74 percent of students who fail to read proficiently by the end of 3rd grade falter in later grades and often drop out before earning a high school diploma (Campaign for Grade-Level Reading, n.d.). Yet only 35 percent of children are reading proficiently at fourth grade; these numbers are significantly worse for children residing in low-income households, children whose primary language is other than English and children who have special needs (National Center for Education Statistics, n.d.).

Given the predictive impact of literacy skills on long-term success, there is a natural inclination to focus on literacy

at earlier and earlier ages. However, focusing specifically on literacy can change teacher practices — and not always for the better. If an expectation of literacy development is coupled with high-stakes accountability, it can negatively influence teacher behavior, particularly if teachers have not had specialized professional development to inform developmentally appropriate literacy practice. Rather than teaching practices focused on hands-on learning and vocabulary enrichment, teachers may focus on “skill and drill” or activities that promote memorization simply to do well on the literacy assessments. This method may produce short-term victories for increasing the number of children positively screened on kindergarten or other readiness tools, but have long-term negative consequences for children that do not develop concrete understanding beyond basic letter and number recognition, decoding skills and related knowledge needed for the eventual mastery of reading and mathematics.

Applying the science of child development, there may be a stronger approach. A rigorous review of the research shows that among the many domains of children's early development, there are two areas that are most highly predictive of children's preparation for and success in school and life: language acquisition and executive functioning skills.

Language acquisition is the strongest predictor of literacy skills (Dickinson, Golinkoff, & Hirsh-Pasek, 2010) and should be a core focus of child assessment. Researchers have documented that language skills are relatively more important than coding skills for reading development over time. The amount and quality of vocabulary words young children acquire directly supports the development of basic reading proficiency and eventual mastery in elementary school and later grades. If children do not have a robust vocabulary, they may learn the mechanics of reading, but not comprehend the meaning of the text. For this reason, language acquisition has a direct relationship to reading proficiency, while emergent literacy skills has an indirect correlation (National Center for Education Statistics, n.d.). Focusing on language acquisition eliminates the potential shortfalls of focusing solely on literacy as there is no negative way to “teach to the test.” There is therefore an increased likelihood of improved teaching practices and an emphasis on communication — essential to literacy outcomes. The responsive, engaging interactions that are essential to building language skills also have a broader spillover effect into other developmental domains. This

is not to suggest that emergent literacy practices be discontinued but that there is a subtle shift related to measurement to focus on language acquisition.

Executive functioning skills are the important developmental skills that are prerequisites for kindergarten readiness and highly predictive of later school success (Center for the Developing Child, n.d; National Institute for Early Education Research, 2006) and should therefore be the other core focus of child assessment. The executive functioning skills necessary for success in school and life are developed during the early years: planning and managing time, flexible thinking, impulse control, self-awareness and interactions with others, and organization. Differences are also seen on early executive functioning skills, with children from low-income families often significantly behind their higher income peers in the early years (Loughan & Perna, 2012). These cognitive and regulatory skills at age three are highly predictive of achievement at age nine, making the foundation-building formative years a critical element of grade-level reading and long-term success (Sasser, Bierman, & Heinrichs, 2015).

In combination, assessing children's development on language acquisition and executive functioning can provide teachers with specific information that can be used to individualize instruction and support children's development. This combined focus can be part of a larger accountability system and provide policymakers with data on the most essential early childhood skills predictive of long-term success and ensure children are making developmentally appropriate learning gains.

Instrument/Tool Selection, Data and Reporting

When the focus of the child assessment has been determined, the next critical step is the selection of an instrument/tool. Legislation should not identify a specific tool, but it can specify the essential elements that must be factored into the selection process and provide clarity on how the data will be used.

The criteria that should guide tool selection is outlined below.

1) Comprehensive: Whether assessing children on the full developmental continuum or on specific domains, selection of a comprehensive tool that provides information on the full developmental continuum of children is strongly recommended. Even if the state policy is only focused on a few domains necessitating use of a curtailed version, a comprehensive assessment tool can more easily accommodate future changes in legislation

and expand or contract the developmental focus as needed. Another significant benefit of a comprehensive tool is the ability for programs, classrooms and teachers that desire data on the full continuum of development to do so without layering additional assessment tools. Additionally, a comprehensive tool provides more flexibility for funders that may want a more complete picture of child assessment for specific interventions.

2) Validity: To effectively and responsibly select measures, it is important that the instrument be valid — meaning the instrument accurately measures what it is intended to measure. For child assessment, it is significantly beneficial to select a tool that has criterion-referenced validity, which ensures the integrity of the data is not compromised by the selection of individual components. This also allows for aggregation of specific data points that can address questions about children's developmental progress unique to each state. This provides more flexibility for customizing the data in ways that are most useful to teachers and policymakers.

3) Reliability: Consistency of measurement is critical to child assessment. The individuals who complete the assessments must be educated to use the instrument correctly and implement the assessment consistently for reliable results. One of the most important factors in developing a child assessment system is establishing the processes to educate the assessors and ensure continued reliability over time.

4) Interval level data: Many valuable tools offer a general progression of children's development that can greatly inform instruction; however, without interval-level data, there is no ability to make "apples to apples" comparisons. Interval-level data measure equivalent levels of growth and development — that is, moving from level one to level two is the same rate of growth as moving from level two to level three. This enables the ability to conduct comparative analysis or have consistency in measurement across domains and is necessary for establishing and defining developmentally appropriate learning gains.

5) Developmentally appropriate learning gains: A model that documents baseline data and then measures gains — individually and overall — is the best way to assess learning gains as a result of program participation. While all children do have the same basic developmental progression, recognizing each child as an individual acknowledges that there will be differences in the timeline of their development.



Children enter early learning programs and are assigned to specific classrooms based on age, but each child has his or her own unique developmental growth pattern which is that individual's norm. Gathering baseline data through pre-tests allows for the teacher to identify the growth of each child by comparing the initial results, most often gathered at the beginning of the year, to data at year end.

Understanding where children are developmentally at the beginning of a program year and assessing their development throughout the year provides a more accurate assessment of developmental progress. Because of unique situations, some children may start a program well behind their peers or may not make a year's growth in a year's time; measuring progress over time provides more nuanced information that can help better understand optimal development for each child.

6) Accommodating individual needs of children:

While it is unlikely that any single tool can accommodate the needs of every child, weight should be given to those that are available in multiple languages, address cultural sensitivity, accommodate dual-language learners and effectively assess children with unique abilities. These considerations help identify an appropriate assessment tool that improves classroom instructional practices and increase opportunities for all children to enter kindergarten and be successful.

7) Data systems, maintenance and use: The nucleus of any child assessment system should be the ability to pinpoint accurately and effectively gaps in age-appropriate development across agreed-upon components for school readiness.

Assessment tools that allow for online data entry and include a central repository of data enable easy access, analysis and data sharing. A strong data system should provide the ability for data aggregation at class, program, community and state levels, as well as flexible analysis capacity to run not only standard reports, but also customized reports to respond to state or local priorities. For longitudinal analysis, an important state policy consideration is establishing unique identifiers that will provide opportunities to monitor children's development in multiple settings over time.

8) Adequacy of resources and implementation

planning: Before making changes in law or practice, it is incredibly important to conduct cost analysis to inform effective implementation. Costs associated with the purchase and use of the tool, number of children who will be assessed annually, education for the assessors, technical assistance supporting reliable implementation

of the tool, and access and use of the data system are all important cost drivers.

These factors should be included in the development of a detailed implementation timeline that includes the time teachers will need to become familiar with the tool and appropriate release time for professional development. Child assessment should be considered a natural part of high-quality early learning experiences and become an invaluable resource for teachers' lesson planning and curriculum implementation.

It is strongly recommended that states focus on identifying a single instrument that streamlines assessment protocols, data collection and analysis. If multiple tools are used, it is extremely important that there is strong alignment in implementation strategies, data collection and reporting, and that the educators are familiar with such practice. These eight criteria can help inform language for legislation and the procurement processes will emanate from the accompanying law.

Include Essential Accountability Parameters in Law

As state leaders approach child assessment system development, there are many important factors to contemplate. Legislation should be constructed so that child assessment data will not be used as the sole determinant for any early childhood teacher's participation in a publicly funded program. With limited resources, there is significant benefit and need to streamline and

refine assessment practices. This work should not add to existing child assessment protocols, but rather be used either to develop a singular child assessment system within a larger accountability framework, or replace complicated and burdensome assessments.

When contemplating the construction of legislation for early childhood assessments, each state should strongly consider the inclusion of:

- the intended purpose of child assessment with focus on developmentally appropriate learning gains;
- attributes for instrument selection that provide guidance for procurement policies;
- implementation schedule and protocols, including frequency of data collection and timeline for training to reliability;
- methodology for collecting and analyzing data that define reporting requirements; and
- a budget, including cost analysis, for purchasing material, sufficient professional development for reliability, technology and data system management.

Formalizing the role of child assessment in law requires significant attention to detail. It is critical to evaluate carefully the proper policy mechanism for establishing defined expectations with clear parameters in law that support the development or refinement of a solid child assessment model.

CONCLUSION

While policymakers seek outcomes from early childhood program investments, it is important to establish protocols that: 1) improve early childhood instructional practices and increase opportunities for children to enter kindergarten prepared to be successful and achieve early grade success; and 2) can be used as appropriate accountability measures for state investments. Staying focused on these shared goals can coordinate efforts to solidify the use of fewer assessments and allow for more focus on broader quality early learning system efforts. The planning process should include development of a shared definition, purpose and benefits of child assessment, as well as cost analysis and implementation strategies. Taking the time to create a clearly articulated and aligned assessment process provides opportunities for consensus building among experts, stakeholders and leadership, all critical elements for establishing a strong early childhood assessment system.

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