



Transforming the Workforce for Children Birth Through Age 8: A Unifying Foundation

Research has revealed that early childhood is a time where developmental changes are happening that can have profound and lasting consequences for a child's future. This emerging science makes clear the importance and complexity of working with young children from infancy through the early elementary years. Young children thrive when they have secure, positive relationships with adults who are knowledgeable about how to support their development and learning.

Transforming the Workforce for Children Birth Through Age 8: A Unifying Foundation (2015), a report published by the Institute of Medicine and the National Research Council in 2015, reviews science on early childhood development and identifies ways that educators and caregivers can best support children's development and learning. This brief offers an overview of report findings for school, district, and program leaders and others who help shape and oversee the care and education of children from birth through age 8.

Early Childhood Years Have a Long-Term Impact on Learning

Early childhood is a time when developmental changes are happening that can have profound and lasting consequences for a child's future. Studies have shown that much more is going on cognitively, socially, and emotionally in young children than previously known. Even in their earliest years, children are starting to learn about their world in sophisticated ways. Development proceeds in ways that are both rapid and cumulative, with early progress laying the foundation for future learning.

Enriching experiences in the early years will support children's healthy development. In contrast, serious stress or adversity can have harmful effects on the growing brain and a child's developmental progress.

Science on Childhood Development Should Be the Basis of High-Quality Instruction

Recent research provided a greater understanding of young children's cognitive abilities, which are easily underestimated. In the past, the prevalent belief that children are “concrete” thinkers – that they cannot deal with abstraction or reason hypothetically – led educators to focus on simple, descriptive activities. But studies have shown that what is going on in babies' and young children's minds is much more complex and sophisticated than their outward behavior reveals. For example, even infants and toddlers can reason about the intentions of other people, intuit aspects of addition and subtraction, and draw conclusions about cause and effect.

Educators can support the growth of these cognitive abilities – for example, by using an abundance of child-directed language during social interaction, by playing sorting and counting games, by putting words to why somebody looks sad, and by exploring together what happens when objects collide. The central feature of these shared activities is that, rather than being entirely directed by the educator, the instruction emerges from the interaction of the educator with the young child and their context; educators notice young children's interests and questions, extend them, and contribute to further discoveries.

As children progress into their preschool and early elementary years, they learn in ways that are more explicit and visible. Preschoolers often use deliberate approaches to learning, such as trial and error or informal experimentation. Children at this age are experiential, learning by doing rather than figuring things out only by thinking about them. This makes shared activities with educators and peers important opportunities for cognitive growth.

Still, the potential to underestimate the cognitive abilities of young children persists in the preschool and kindergarten years. In one study, for example, children's actual performance was six to eight times what was estimated by their own preschool teachers as well as experts in educational development. A study in kindergarten revealed that teachers spent most of their time on content the children already knew.

By being aware of the cognitive progress of children at this age, educators can deliberately enlist the child's existing knowledge and skills in new learning opportunities. Instructional strategies that promote higher-level thinking, creativity, and some abstract understanding – such as talking about ideas or future events – are linked to greater achievement in this age group. Preschoolers' interest in learning by doing is also naturally suited to experimental inquiry related to science and other types of learning that involve developing and testing hypotheses.

For more information on the science of child development and instructional practices that support it, see the booklet *Child Development and Early Learning: A Foundation for Professional Knowledge and Competencies* at www.nas.edu/birthto8.

Shared Knowledge and Competencies Are Needed Across the Workforce

As children progress from infancy to preschool and through their early elementary years, it is important for them to have continuous, consistent, high-quality support for their development and learning. Ensuring this continuity and quality means that all professionals who work with children need a shared base of knowledge and skills. Across age ranges and settings, care and education professionals need:

- core knowledge of developmental science and content knowledge;
- mastery of practices that help children learn and develop on individual pathways;
- knowledge of how to work with diverse populations of children;
- the capability to partner with children's families and with professional colleagues; and
- the ability to access and engage in ongoing professional learning to keep current in their knowledge and continuously improve their professional practice.

Recommendations

The system for educating children from birth through age 8 can be improved to better support care and education professionals in acquiring and using the competencies and knowledge they need. The following recommendations are of particular relevance to school, district, and program leaders; some also require actions by other stakeholders. (A complete list of recommendations can be found in the full report.)

Strengthen competency-based qualification requirements for all care and education professionals working with children from birth through age 8. Currently, practices and policies regarding requirements for qualification to practice vary widely for different professionals based on their role, the ages of the children with whom they work, their practice setting, and what agency or institution has jurisdiction or authority for setting qualification criteria. Government agencies and nongovernmental organizations should review and revise their standards and policies for workforce qualification requirements to ensure they are competency based and aligned to reflect the foundational knowledge for all care and education professionals. Greater coherence in qualification requirements across professional roles would improve the consistency and continuity of high-quality learning experiences for children from birth through age 8.

Develop and implement comprehensive pathways and multiyear timelines at the individual, institutional, and policy levels for transitioning to a minimum bachelor's degree qualification requirement, with specialized knowledge and competencies, for all lead educators working with children from birth through age 8. Currently, most lead educators in care and education settings prior to elementary school are not expected to have the same level of education – a bachelor's degree – as those leading elementary school classrooms. This difference in education requirements lags behind the science of child development and early learning, which clearly indicates that the work of lead educators for young children of all ages is based on the same high level of sophisticated knowledge and competencies. For this recommendation to be fully realized and effective, it must be implemented carefully in a phased approach, with supportive local, state, and federal policies and with informed, supportive leadership.

As this recommendation is phased in, leaders of schools, centers, and care and education programs should consider:

- Strategies for improving the feasibility of accessing higher education programs, such as providing adequate time in work schedules and other ways to give those who need to maintain full-time income opportunities to complete degree programs.
- Pathways and timelines to improve the availability, accessibility, and quality of professional learning during ongoing practice.
- Recruitment plans to engage a new, diverse generation of care and education professionals, highlighting the prospect of a challenging and rewarding career.

Strengthen practice-based qualification requirements, including a supervised induction period, for all lead educators working with children from birth through age 8. The opportunity for supervised practice is important to ensure that practitioners have mastered the competencies necessary to work with children from birth through age 8, yet many professional roles in care and education currently are not required to have a supervised induction period as a transition to autonomous practice. In introducing this supervised induction period, it will be necessary to develop a greater number and diversity of field placements capable of providing this kind of professional learning with appropriately qualified supervisors and mentors. It will also be necessary to consider how to apply this requirement for experienced practitioners who are acquiring this qualification while already practicing.

Develop a new paradigm for evaluation and assessment of professional practice for those who work with children from birth through age 8. Current systems for measuring the performance of educators are not sufficient for those who work with children in the early elementary years and younger; indeed, they may produce unreliable data about children's learning and development and the quality of instruction. A continuous improvement system of evaluation and assessment should:

- align with research on the science of how young children develop and learn;
- be comprehensive in its scope of early developmental and learning objectives;
- reflect day-to-day practice competencies and not just single-point assessments;
- reflect what professionals do in their practice settings and also how they work with professional colleagues and with families;
- be tied to access to professional learning; and
- account for setting-level and community-level factors beyond the control of practitioners that affect their capacity to practice effectively (such as overcrowded classrooms, poorly resourced settings, lack of access to professional learning supports, community factors, and home environments).

Several layers of considerations should be addressed when implementing this recommendation.

- At the **practitioner-level**, practitioners need to be taught about assessment tools that can capture how children are doing and how that information can be used to improve practice.
- Evaluation and assessment systems need to take into account that **setting-level factors** outside of the practitioners' control can affect both the outcomes of the children with whom they are working and their own performance and quality of practice. This may include overcrowded classrooms, poorly resourced settings, and lack of access to professional learning supports.
- **Center and program directors, principals, and administrators** need training and support to understand appropriate expectations for the knowledge and competencies needed by professionals who work with children from birth through age 8 so they know how to assess them. Leaders need to understand what constitutes appropriate assessment tools and multicomponent evaluation systems, as well as how to use the information gained to improve the practice of the workforce they supervise.

Improve consistency and continuity for children from birth through age 8 by strengthening collaboration and communication among professionals and systems within the care and education sector and with closely related sectors, especially health and social services. This step is important not only to provide more consistent and better-coordinated services for individual children and their families, but also to create a shared understanding of the interconnected quality of developmental processes that each practitioner, focused on a specialized scope of practice, may see only in part. Particularly important is the need for consultation between educators and infant and child mental health professionals, and a focus on improving the availability of mental health services and consultation.

Strategies to support interprofessional practice should include:

- creating structures and providing training for facilitated sharing of data and other information on children's progress among practitioners, especially as children are moving from one setting to another;
- encouraging professional associations of educators and leaders to create partnerships and conduct meetings that allow for sharing information and activities across settings and age groups;
- supporting a specific professional role, such as navigators or case managers, in facilitating connections for children and families;
- assessing and developing plans to address barriers to collaboration; and
- creating mechanisms for interaction and collaboration among agencies and institutions.

Ensure that policies and standards that shape the professional learning of care and education leaders encompass the foundational knowledge and competencies needed to support high-quality practices for child development and early learning in their organizations. Those in leadership roles in elementary schools and early childhood programs, in addition to other administrators, are an important factor in the quality of early learning experiences for children. These leaders play an instrumental role in helping care and education professionals strengthen their core competencies and in creating a work environment in which they can fully use their knowledge and skills. Principals and directors often take a lead role in selecting content and activities for professional learning, and they are responsible for workforce hiring practices and evaluation systems. They need to have the knowledge and competencies to hire and supervise educators who are capable of working with children in the settings they lead.

In addition to the general competencies and knowledge needed by all early childhood care and education workers, these leaders – center directors, childcare owners, principals, and other leaders and administrators who oversee care and education programs – need the following competencies and knowledge.

PRACTICES TO HELP CHILDREN LEARN

- Understanding of the implications of child development and early learning for interactions of care and education professionals with children, instructional and other practices, and learning environments.
- Ability to keep current with how advances in the research on child development, early learning, and instructional practices inform changes in professional practices and learning environments.

ASSESSMENT OF CHILDREN

- Knowledge of assessment principles and methods to monitor children’s progress and ability to adjust practice accordingly.
- Ability to select assessment tools for use by the professionals in their setting.

FOSTERING A PROFESSIONAL WORKFORCE

- Knowledge and understanding of the competencies needed to work with children in the professional setting they lead.
- Ability to use knowledge of these competencies to make informed decisions about the hiring and placement of practitioners.
- Ability to formulate and implement policies that create an environment that enhances and supports quality practice and children’s development and early learning.
- Ability to formulate and implement supportive and rigorous ongoing professional learning opportunities and quality improvement programs that reflect current knowledge of child development and of effective, high-quality instructional and other practices.
- Ability to foster the health and well-being of their staff and seek out and provide resources for staff to manage stress.

ASSESSMENT OF EDUCATORS

- Ability to assess quality of instruction and interactions, to recognize high quality, and to identify and address poor quality through evaluation systems, observations, coaching, and other professional learning opportunities.
- Ability to use data from assessments of care and education professionals appropriately and effectively to make adjustments to improve outcomes for children and to inform professional learning and other decisions and policies.

DEVELOPING AND FOSTERING PARTNERSHIPS

- Ability to support collaboration among the different kinds of providers under their leadership.
- Ability to enable interprofessional opportunities for themselves and their staff to facilitate linkages among health, education, social services, and other disciplines not under their direct leadership.
- Ability to work with families and to support their staff in working with families.

ORGANIZATIONAL DEVELOPMENT AND MANAGEMENT

- Knowledge and ability in administrative and fiscal management, compliance with laws and regulations, and the development and maintenance of infrastructure and an appropriate work environment.

For More Information

This brief was prepared by the Board on Children, Youth, and Families based on the report *Transforming the Workforce for Children Birth Through Age 8: A Unifying Foundation*. The study was sponsored by The Bill & Melinda Gates Foundation, the David and Lucile Packard Foundation, the U.S. Department of Education and the U.S. Department of Health and Human Services, the Robert R. McCormick Foundation, and the W.K. Kellogg Foundation. Any opinions, findings, conclusions or recommendations expressed in this publication are those of the authors and do not necessarily reflect those of the sponsors. The full report and additional report-related resources are available at www.nas.edu/birthto8.

This report brief was sponsored by the Foundation for Child Development.

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