



# Early Childhood Care and Education

## Ten Key Questions and Findings

### *About this document:*

As it sought to develop a business plan for early childhood education and care in Minnesota, the funders group started with some key questions about early childhood development and learning. This document provides very brief answers to some of the primary scientific, academic and public policy literature related to these questions. Because early childhood development and learning spans multiple fields, from neuroscience, to psychology, health, program evaluation and education, this document does not purport to be an exhaustive review. Rather, it makes use of existing literature reviews from various fields.

*For more information and a list of sources, please see the full literature review.*

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### **Question One: What environments, opportunities and activities are important for a young child's development to enable him to learn to his full potential?**

"An early, growth-promoting environment, with adequate nutrients, free of toxins, and filled with social interactions with an attentive caregiver, prepares the architecture of the developing brain..." (NSCDC 2007, 1). For most children, typical early experiences lead to healthy brain development. Children who are exposed to toxic stress and/or who have developmental delays need interventions that expose them to necessary early experiences that build foundational skills.

### **Question Two: Are there critical periods for learning in the early years?**

For children without developmental deficits, the opportunity to learn most cognitive, social, and emotional functions (i.e., those learned in school) remains open well beyond age three (NSCDC 2007). "From a neurobiological perspective, school readiness falls along a continuum throughout school segments rather than at any single point in time when children might be viewed as 'coming ready to learn'" (Peterson 1994).

### **Question Three: What roles do family and culture play in a young child's learning?**

Research is not definitive about the influence of family and culture groups on academic skills. Some assert that children who are members of varying culture groups may have skills that are not recognized well by the culture group

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that operates conventional schools and determines how to use assessment tools, but which are “useful from the perspective of children (and their families) who are culturally or linguistically diverse” (New 1999).

### **Question Four: What is the impact of poverty on early learning?**

The relationship between poverty and learning is complex and multifaceted, as “many factors vary systemically with socioeconomic status” (Noble, Farah, and McCandliss 2006). Negative effects of poverty have been found by age five on cognitive skills and emotional and behavioral health. Neighborhood poverty is associated with less favorable long-term academic attainment. In the same vein, wage supplements, earnings disregards and basic human protective systems have been associated with positive effects on children’s cognitive and school outcomes.

### **Question Five: What skills and abilities do kindergarten teachers feel are important for children to have upon entering kindergarten?**

Kindergarten teachers evaluate readiness based on research-based indicators of social and emotional development, physical development and health, as well as approaches to learning in the areas of reading, writing, math, logic, science, social science, creativity, and the arts. When asked about the importance of various indicators, teachers place the least emphasis by far on academically-oriented skills, such as knowing letters and counting, because they can and do teach these skills in kindergarten. Parents, however, place higher emphasis on academics. Consequences of the varying expectations are not well documented.

### **Question Six: Which children have been shown to benefit most from early childhood education?**

A sample of recent high-quality studies shows that intensive early childhood programs for disadvantaged students can have a positive impact, but the results for large federal programs are mixed. Benefits are less clear for middle- and upper-income children.

### **Question Seven: What types of benefits can be expected from early childhood education?**

Studies examining the benefits of early childhood education reveal a mixture of short- and long-term benefits for children and families and benefits for the nation at large. Significant benefits emerge for specific, well-designed and implemented interventions for highly disadvantaged children. Some researchers emphasize that these benefits are frequently overstated, setting up unrealistic expectations for early care and education outcomes. It’s also important to

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note that the primary benefits are related to factors other than closing the educational achievement gap. Findings suggest early benefits in cognition and academic achievement from some programs fade by early elementary grades, which some suggest points to the need to address inadequate K-12 public school design and/or poor quality schools in low-income neighborhoods. Some studies report that intensive participation leading to higher cognitive benefits can also lead to a higher likelihood of problematic behaviors.

### **Question Eight: What types of outcomes can be expected from full-day kindergarten?**

A small body of reliable evidence indicates that attending full-day kindergarten results in academic benefits (higher standardized test scores, diminished retention, and more) and social benefits, although it seems that what children do during the kindergarten day is more important than the length of the day. Some researchers have shown that the benefits “fade out”, however, between third and fifth grade. For single-parent or two-income families, all-day kindergarten eliminates the difficulty of finding partial-day child care. Cultural groups express concern that children might lose valuable capacities and skills, including language and identity that can make them successful members of their cultural communities, when they begin to attend school.

### **Question Nine: What types of outcomes can be expected from universal preschool?**

Gains from state-funded preschool programs are modest in the short-term, but researchers question sustainability of the outcomes. Some studies indicate that the benefits fade. For example, since Oklahoma has been offering state-funded universal pre-K over the past decade, fourth and eighth grade reading scores have fallen below the national average despite schools’ good quality ratings, according to the Reason Foundation. The foundation reports that the scores are lower than they were prior to the pre-K program. Other research points out that state programs vary, in design and population served, from the programs that provide the strongest evidence for improvement.

### **Question Ten: Is there any consensus on the role of assessment for kindergarten children?**

Societal and governmental initiatives promote and require accountability, so assessment is increasingly required. Having assessments that are of value and without negative consequence requires fundamental attention to their purpose and the design of the larger systems in which they are used. The data gained from testing children at kindergarten entry need to be interpreted carefully. Some assert that we should expand the focus of assessment from whether children are ready for kindergarten, and whether early programs are preparing them, to giving schools the information they need to prepare schools for the diverse group of children they will be serving.