

Early Childhood Education

by Douglas R. Powell

Research-based blueprints for federal, state and local early childhood policies and programs have been issued in unprecedented numbers in the past decade, providing a well-developed agenda for promoting competence in young children as we enter the 21st century. Never before has there been a clearer set of informed recommendations for strengthening early childhood development than is now available to policymakers, professionals and parents, as illustrated in Table 1.

Table 1. Selected National Policy Reports on Early Childhood

Never before has there been a clearer set of informed recommendations for strengthening early childhood development than is now available to policymakers, professionals and parents.

Ready to Learn: A Mandate for the Nation, Carnegie Foundation for the Advancement of Teaching (Boyer 1991)

Caring Communities: Supporting Young Children and Families, National Task Force on School Readiness, National Association of State Boards of Education (1991)

Starting Points: Meeting the Needs of Our Youngest Children, Carnegie Task Force on Meeting the Needs of Young Children (1994)

Years of Promise: A Comprehensive Learning Strategy for America's Children, Carnegie Task Force on Learning in the Primary Grades (1996)

Not by Chance: Creating an Early Care and Education System for America's Children, Quality 2000 Initiative (Kagan & Cohen 1997)

Ready Schools, National Education Goals Panel (Shore 1998)

Learning to Read and Write: Developmentally Appropriate Practices for Young Children, International Reading Association and the National Association for the Education of Young Children (1998)

Preventing Reading Difficulties in Young Children, Committee on the Prevention of Reading Difficulties in Young Children, Commission of Behavioral and Social Sciences and Education, National Research Council (Snow et al. 1998)

Eager to Learn: Educating Our Preschoolers, Committee on Early Childhood Pedagogy, National Research Council (Bowman, Donovan, & Burns, 2000)

From Neurons to Neighborhoods, Committee on Integrating the Science of Early Childhood Development, National Research Council and Institute of Medicine (Shonkoff & Phillips, 2000)

The recommendations vary in emphasis but the commonalities are striking, reflecting a growing consensus that all children are entitled to environments that are developmentally stimulating, nurturing and challenging. The first goal of the National Education Goals adopted by the 50 governors and President George H. Bush in 1989 makes the strongest national statement about this concern. Subsequently incorporated into the "Goals 2000: Educate America Act" that was signed into law by President Bill Clinton in 1994, the goal states that "by the year 2000, all children in America will start school ready to learn." Toward this end it calls for:

- All children to have access to high-quality and developmentally appropriate preschool programs to prepare them for school;
- Every parent in the United States to be a child's first teacher and to devote time daily helping the child to learn; and
- All children to receive the nutrition, physical activity experiences, and healthcare needed to arrive at school with healthy minds and bodies; and the mental alertness necessary for learning.

Why the Press to Improve Early Childhood Outcomes?

A number of factors have stimulated this interest in the early years and are driving current ideas about how to facilitate the development of young children into competent and productive adults.

Indicators of Early Childhood Well-being Point to Problems

The United States does not compare well with most other industrialized countries on many indicators of childhood well-being. Included in these indicators are: infant mortality rate, percentage of low birthweight babies, proportion of babies immunized against childhood diseases, and the rate of babies born to adolescent mothers.

- **Too many young children are living in poverty.** About 20 percent of American children and youth live in families below the poverty level, with the greatest prevalence among younger children; one in four infants and toddlers live below the poverty line. While the percentage of children living in poverty has remained fairly steady since 1981, income disparities have grown significantly: The percentage of children in both high-income and extreme-poverty families has risen, while the percentage of children living in medium-income families has fallen (Federal Interagency Forum on Child and Family Statistics 1998).
- **The detrimental effects of poverty begin early.** Children living below the poverty line are more likely to experience poor general health and high levels of blood lead, housing problems, and hunger. They are less likely to be up to date on immunizations or to have a regular source of healthcare, to be enrolled in early childhood education, or to have a parent working full time. Research consistently shows that persistent poverty has greater detrimental effects on IQ, school achievement and socioemotional functioning than short-term or transitory poverty. Children experiencing both types of poverty typically fare less well than those not experiencing socioeconomic disadvantage (McLoyd 1998).

- **Early childhood enrichment is lacking in many homes.** Survey data on family practices that can enable the development of children's reading and writing skills point to a lack of literacy-rich environments in the homes of many children. A 1996 survey found that only 57 percent of children ages 3 to 5 were read aloud to every day (Federal Interagency Forum on Child and Family Statistics 1998).

The Early Years Matter

The early years of life constitute a formative or critical period that shapes the course of development. An influential report on the early years issued by the National Research Council and Institute of Medicine (Shonkoff & Phillips, 2000) concludes: "From birth to age 5, children rapidly develop foundational capabilities on which subsequent development builds. In addition to their remarkable linguistic and cognitive gains, they exhibit dramatic progress in their emotional, social, regulatory, and moral capacities. All of these critical dimensions of early development are intertwined, and each requires focused attention."

There is far more extensive development in the first year of life than had been previously demonstrated, pointing to the risk of serious developmental problems caused by adverse early environments.

Research on brain functioning points to the lasting effects of the early years. Sophisticated tools for brain scans allow researchers to examine the impact of environments on the structure and functioning of the developing brain (Nelson & Bloom 1997). There is far more extensive development in the first year of life than had been previously demonstrated, pointing to the risk of serious developmental problems caused by adverse early environments.

High-quality Early Childhood Programs Are Effective

Many evaluations of early childhood programs have been conducted with disadvantaged populations. Among children from low-income families, significant gains in intellectual performance and socioemotional development have been measured at the end of only one year of intervention through model early childhood programs. These programs also produce strong, positive effects on special education placement and grade retention, and yield positive impacts on life success factors such as teenage pregnancy, delinquency, welfare participation and employment. [For a recent review, see Barnett (1995).]

The Perry Preschool Project in Ypsilanti, Michigan followed preschool (3 and 4 years of age) participants to age 27. Program participants had half as many criminal arrests, higher earnings and property wealth, and greater commitment to marriage than did their counterparts who had not attended preschool (Schweinhart et al. 1993). The economic benefits to participants and to the general public greatly exceeded the program costs; the benefit-cost ratio in excess of 7:1 accrued to the public largely through reductions in crime (Barnett 1993).

Early Childhood Program Quality Is Generally Low and Unevenly Distributed

Six out of 10 children under the age of 6—more than 12.9 million—who had not yet entered kindergarten received childcare and education on a regular basis from someone other than their parents in 1995 (Federal Interagency Forum on Child and Family Statistics 1998). Studies indicate that a majority of these children were in mediocre or substandard childcare arrangements. Researchers found that only one in seven centers provided an environment that promoted healthy development, according to one national study sample of 401 centers (Helburn 1995). An earlier study found that only 12 percent of the classrooms in 227 licensed, full-day center-based programs in five metropolitan areas met or exceeded a good level of quality (Whitebook et al. 1989).

About one-third of the arrangements used by employed mothers with children under 5 are family childcare homes with nonrelative providers or nonparent relatives (such as a child's grandmother). An observational study of 226 such providers in three communities in California, Texas and North Carolina determined that 9 percent of the homes were of good quality; 35 percent were rated as inadequate; and the remaining 56 percent were rated as adequate (Kontos et al. 1995).

We know less about the early childhood programs offered through public schools, although available research points to a lack of quality. A large study of early childhood classrooms sponsored by Head Start, public school and private childcare found that while the programs generally provided adequate levels of quality, none was rated as excellent; the amount of individual attention provided to children was low across all settings (Layzer et al. 1993). Studies of public early childhood and kindergarten programs reveal a wide variation in quality, particularly in the area of using developmentally appropriate materials (Mitchell et al. 1989, Bryant et al. 1991). An investigation of public school preschool programs in South Carolina, however, revealed that large-scale programs can provide developmentally appropriate experiences (Frede & Barnett 1992).

What we do know is that, in general, it is children from working poor and lower middle-class families who receive lower quality care; their families are prohibited financially from purchasing high-quality care or lack access to government subsidies (Phillips et al. 1994).

We Know How to Improve Outcomes

Schorr and Schorr (1988) promoted the idea that there is a sufficient body of knowledge to improve the functioning of children at greatest risk of failure in their book, *Within Our Reach*. Schorr and Schorr dismiss the notion that educational and human service programs for the disadvantaged are an exercise in "throwing money" at problems, assembling instead an impressive collection of data that documents the huge public and private costs of ignoring the early childhoods of vulnerable populations, and documenting the solutions that lie "within our reach" for improving the early lives of several million American children at risk.

How Can We Improve Child Outcomes?

Recent recommendations for improving child outcomes focus on the discrete components of high-quality environments for young children, building on a base of research knowledge that has expanded exponentially over the last 20 years. Four areas define the essential ingredients for achieving and sustaining positive outcomes in early childhood:

- supports for families
- early childhood program curricula
- staff credentials and program standards
- schools that respond flexibly to a diverse range of child abilities and backgrounds

Families

Compelling evidence points to the enduring effects of early home environment on children's learning and development. The following parent beliefs and practices emerged as important contributors to child outcomes:

- Parental teaching strategies that stimulate the child's own thinking and encourage active, verbal engagement in a task
- Providing reading and writing materials (e.g., picture dictionaries) and parental reading behavior as supports for early literacy development
- Parental understanding of the complex process of child development and involving the child as an active contributor to his or her own development
- Appropriate parental expectations of the child's abilities

Ensuring these positive effects of parents on children is commonly provided through education and support programs that strengthen the quality of the home environment and interactions between parents and their children. As noted earlier, the National Education Goals Panel recommended training and support to enable parents to spend time daily helping their children to learn. Many programs focus on parent education and emphasize early, comprehensive prenatal care. Early childhood programs that work directly with children and include systematic provisions for developing and sustaining supportive relationships with parents have produced positive effects on a range of parent outcomes (for a review, see Powell [1995]). Furthermore, parent involvement is associated with positive child outcomes (e.g., Reynolds [1992]).

Less robust outcomes are found in programs that work exclusively with parents; home visiting programs focused on parents yield mixed results (e.g., Olds & Kitzman [1993]). Multiple, powerful determinants of parenting beliefs and practices are not easily influenced; thus, programs of minimal or modest intensity in terms of duration or frequency of contact are unlikely to support meaningful change (Larner 1992).

Good practices for engaging parents include:

- Recognizing that supportive relationships are best fostered by staff and parent confidence in one another.

- Using multiple instructional methods that enable parents to understand and practice behaviors that support children's development and learning.
- Sensitizing staff to the situational contexts, needs and interests of parents.
- Opportunities for parents to have input into shaping the content and methods of parenting issues programs.
- Providing opportunities for parents to form mutually beneficial ties with one another and to gain access to community resources in order to strength their support system.

Research and sustained contact with families participating in programs indicate that the vast majority of parents wish to do well by their children, and this holds true across economic strata (e.g., Hart & Risley [1995]). It is important to emphasize this in developing strategies for working with lower-income parents, where a profound commitment to being a good mother is evident (Holloway et al. 1997).

Policymakers and professionals interested in supporting optimal environments for parenting and child development are examining conditions of family functioning such as poverty, unsafe neighborhoods and stressful work situations in turn developing strategies for policy recommendations that improve the existing contexts of parenting.

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- The *Caring Communities* report of the National Association of State Boards of Education (1991) recommends that employers establish policies for parental leave; and to provide release or flextime for locating an early childhood program, helping their child adjust to a new program, and visiting and volunteering in such a program.
- The Carnegie Task Force on Meeting the Needs of Young Children (1994) recommends broad-based action for fostering family-centered communities—a community-level "culture of responsibility"—that includes strong local leadership, community assessments of needs and existing program capacities, and an emphasis on results.

Curriculum

Professionals and the lay public are far from reaching general agreement on *what* and *how* young children should be taught. Recently, however, important advances in specific recommendations and research directly address the goals and methods of early childhood programs. The National Education Goals Panel (1992) recommended that high-quality environments in the early years focus on five dimensions of early learning and development that prepare a child for school:

- physical well-being and motor development
- social and emotional development
- dispositional and stylistic approaches toward learning
- language usage
- cognitive and general knowledge

Head Start, the nation's largest early childhood program, uses such indicators of social competence as guides to programming and assessing desired outcomes (Zigler 1998).

Guidelines for developmentally appropriate practices with young children were developed by the National Association for the Education of Young Children (NAEYC) in the early 1980s (Bredekamp 1987), and revised 10 years later (Bredekamp & Copple 1997). These guidelines give attention to age and individual appropriateness, calling for curriculum emphasis on the whole child, active learning that flows from the child's interests, and concrete activities that are relevant to young children's lives. They are incorporated into numerous standards statements, including the National Education Goal Panel legislation.

Positive outcomes are related to developmentally appropriate practices, with studies indicating that children in classrooms characterized by child-initiated activities score higher on many measures than do children in teacher-directed activities. These measures include: creativity, language outcomes, verbal skills, child confidence in cognitive skills, academic achievement in first grade, attitudes toward school, and stress behaviors in the classroom. Some findings, however, reveal no differences due to the use of developmentally appropriate practices in children's social development, and one study found that literacy achievement was higher in didactic, teacher-directed classrooms compared to child-initiated classrooms (for a review, see Dunn & Kontos [1997]).

Credentials and Standards

State regulations for early childhood programs typically require their staff to have minimal or no formal professional training in child development or early education, reflecting the persistent myth in the United States that such work is not an intellectually challenging enterprise.

Research literature, however, shows that teachers with higher levels of education and training have more positive interactions with children; and the children in their care have better outcomes (e.g. Whitebook et al. 1989). An analysis of data from two major studies demonstrated that teachers with a bachelor's or more advanced degree in early childhood education were more effective (Howes 1997).

The need to significantly upgrade the educational credentials of early childhood teachers is a central component of most policy recommendations on improving early childhood outcomes. The Carnegie Task Force on Learning in the Primary Grades (1996) report endorses the idea of rewarding advanced levels of professional preparation with pay and title. The Quality 2000 Initiative recommends a three-tier approach to licensing individuals caring for young children, including early childhood administrator, educator and associate educator licenses (Kagan & Cohen 1997).

Positive child outcomes are produced when well-prepared teachers operate within supportive classroom conditions. One particularly influential condition is the number of students per teacher, or child:staff ratio. Studies show that more positive developmental outcomes occur in classrooms with a smaller number of children per teacher (for a review, see Hayes, Palmer and Zaslow [1990]).

Since both teacher background (credentials) and child:staff ratio are cost-sensitive issues, a key policy question is whether the effectiveness of highly-trained teachers is diminished when there are more children in the classroom. The Howes (1997) analysis suggests that advanced training does not enable teachers operating within less stringent child:staff ratios to be as effective as teachers with less training operating with more stringent ratios.

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Ready Schools

Central to most policy recommendations issued in recent years is the theme that children's outcomes are improved when schools are prepared to work in flexible and effective ways with a heterogeneous population of children and families.

- The Carnegie Task Force on Learning in the Primary Grades (1996) calls for schools to provide varied learning environments that offer the highest quality of instruction for all children, including those of diverse linguistic and cultural backgrounds.
- The *Ready Schools* report of the National Education Goals Panel recommends that schools be responsive to children's individual needs (including the provision of intensive help when needed). It calls for schools to be "committed to the success of every child" and to "alter practices and programs if they do not benefit children" (Shore 1998, p. 5).

Research evidence supports these recommendations. The effects of early childhood programs for children from disadvantaged backgrounds are strengthened by continued intervention in the early school grades. Schools can accommodate a range of child abilities (Boyer 1991; National Association of State Boards of Education 1991) through the use of developmentally appropriate practice in kindergarten classrooms.

Additionally, research findings indicate that children in developmentally appropriate classrooms exhibit less overall stress than children in developmentally inappropriate classrooms (Burts et al. 1992), and that first-graders who had participated in developmentally appropriate kindergarten classrooms had higher reading comprehension scores than those who had participated in less appropriate kindergarten classrooms (Burts et al. 1993).

Expanding the kindergarten day has shown some modest academic effects on children, but benefits for middle-class children are not consistent across studies (Karweit 1994). One-on-one tutoring programs using teachers rather than aides have been effective (Wasik & Slavin 1993). No compelling evidence exists to date on the veracity of raising kindergarten age requirements or adding a year of "developmental" or "junior kindergarten" for children at risk. It appears that, at best, the extra-year programs add a temporary boost in achievement that fades over time (Karweit & Wasik 1994).

How Can We Build on the Lessons of Improved Outcomes?

Promote Basic Understandings

Ambitious public awareness strategies aimed at dispelling myths and promoting basic understandings about the early childhood period are essential to the creation and adoption of policies and practices that support healthy functioning in the early years. The facts are that learning begins long before a child enters school; poor child outcomes are not necessarily due to bad parenting; the care and education of young children must be put in the hands of qualified teachers; and a consensus on what constitutes appropriate learning experiences must be reached between parents and staff in order to develop supportive relationships.

- Significant benefits accrue to society from investments in early childhood programs for disadvantaged populations; cost-benefit analyses demonstrate a remarkable long-term return on program costs.
- Most parents are not financially able to pay the actual expenses of high-quality early childhood programs. Furthermore, high-quality programs require subsidies or in-kind donations beyond the revenues generated through parent fees, leading to the call for the expansion of publicly supported programs such as Head Start.
- Stereotypes about the child-rearing motivation and practices of lower income parents inhibit funding for family-centered early childhood programs and function as barriers to developing healthy teacher-parent relationships. Research offers a different picture of these parents, one that includes profound interest in and big dreams for their children's futures.
- Definitions of program quality are generated by professionals without contributions from parents who often use selection criteria that is not considered in assessments of program quality. The developmentally appropriate practice concept is foreign to many parents of disadvantaged populations. Thus, it is important to craft an understanding of what constitutes quality program experiences based on expert knowledge and respectful of family traditions. A focus on the knowledge and skills a young child should possess will be useful for discussions at local, state and national levels.

Set and Enforce Standards

An apt description of the direction needed, but not currently required, to ensure the sought-for quality in early childhood programs is found in the title of the Quality 2000 Initiative report: *Not by Chance*.

- Requiring all staff to be licensed and enforcing program licensing requirements for all programs is the best strategy for improving and maintaining program quality. Further, the Quality 2000 Initiative report recommends financial and other incentives for voluntary accreditation through the National Academy of Early Childhood Programs (which is affiliated with the NAEYC).
- Parent choice as a strategy for improving quality is based on the assumption that demand for quality programs will stimulate upgrades. Research, however, reveals that parents typically use criteria that are in conflict with professional benchmarks of quality (Holloway & Fuller 1992). Existing information services that assist parents in identifying and selecting high-quality programs are valuable, but cannot be counted on to single-handedly shape appropriate decision-making.

Conclusion

The Quality 2000 Initiative calls for a broad contingency of groups—including business, government, parents and community organizations—to generate the needed funds for the hoped-for programs. Further, the Initiative recommends that 10 percent of public early care and education funds be invested in infrastructure and quality enhancements for early childhood programs, and that states and localities form permanent boards charged with responsibility for the infrastructure and governance of early care and education (Kagan & Cohen 1997).

A well-formulated agenda for moving the early childhood program experience toward the direction of positive outcomes exists. The biggest challenge is marshaling the resources and realizing a broad-based political will to achieve better futures for our children.

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