Developmentally Appropriate Practice in Early Childhood Programs Serving Children from Birth through Age 8

A position statement of the
National Association for the Education of Young Children

Adopted July 1996

This statement defines and describes principles of developmentally appropriate practice in early childhood programs for administrators, teachers, parents, policy-makers, and others who make decisions about the care and education of young children. An early childhood program is any group program in a center, school, or other facility that serves children from birth through age 8. Early childhood programs include child care centers, family child care homes, private and public preschools, kindergartens, and primary-grade schools.

The early childhood profession is responsible for establishing and promoting standards of high-quality, professional practice in early childhood programs. These standards must reflect current knowledge and shared beliefs about what constitutes high-quality, developmentally appropriate early childhood education in the context within which services are delivered.

This position paper is organized into several components, which include the following:

1. a description of the current context in which early childhood programs operate;

2. a description of the rationale and need for NAEYC's position statement;

3. a statement of NAEYC's commitment to children;

4. the statement of the position and definition of *developmentally appropriate practice*;

5. a summary of the principles of child development and learning and the theoretical perspectives that inform decisions about early childhood practice;

6. guidelines for making decisions about developmentally appropriate practices that address the following integrated components of early childhood practice: creating a caring community of learners, teaching to enhance children's learning and development, constructing appropriate curriculum, assessing children's learning and development, and establishing reciprocal relationships with families;

7. a challenge to the field to move from *either/or* to *both/and* thinking; and

8. recommendations for policies necessary to ensure developmentally appropriate practices for all children.

This statement is designed to be used in conjunction with NAEYC's "Criteria for High Quality Early Childhood Programs," the standards for accreditation by the National Academy of Early Childhood Programs (NAEYC 1991), and with "Guidelines for Appropriate Curriculum Content and Assessment in Programs Serving Children Ages 3 through 8" (NAEYC & NAECS/SDE 1992; Bredekamp & Rosegrant 1992, 1995).

The current context of early childhood programs

The early childhood knowledge base has expanded considerably in recent years, affirming some of the profession's cherished beliefs about good practice and challenging others. In addition to gaining new knowledge, early childhood programs have experienced several important changes in recent years. The number of programs continues to increase not only in response to the growing demand for out-of-home child care but also in recognition of the critical importance of educational experiences during

the early years (Willer et al. 1991; NCES 1993). For example, in the late 1980s Head Start embarked on the largest expansion in its history, continuing this expansion into the 1990s with significant new services for families with infants and toddlers. The National Education Goals Panel established as an objective of Goal 1 that by the year 2000 all children will have access to high-quality, developmentally appropriate preschool programs (NEGP 1991). Welfare reform portends a greatly increased

consequences of participation in high-quality early childhood
programs for children from low-income families influenced the
expansion of Head Start and public school prekindergarten
(Lazar & Darlington 1982; Lee, Brooks-Gunn, & Schuur 1988;

- appreciating childhood as a unique and valuable stage of the human life cycle [and valuing the quality of children's lives in the present, not just as preparation for the future];

- basing our work with children on knowledge of childBt

μ

ˆo25

3. *knowledge of the social and cultural contexts in which children live* to ensure that learning experiences are meaningful, relevant, and respectful for the participating children and their families.

Furthermore, each of these dimensions of knowledge—human development and learning, individual characteristics and experiences, and social and cultural contexts—is dynamic and changing, requiring that early childhood teachers remain learners throughout their careers.

An example illustrates the interrelatedness of these three dimensions of the decisionmaking process. Children all over the world acquire language at approximately the same period of the life span and in similar ways (Fernald 1992). But tremendous individual variation exists in the rate and pattern of language acquisition (Fenson et al. 1994). Also, children acquire the language or languages of the culture in which they live (Kuhl 1994). Thus, to adequately support a developmental task such as language acquisition, the teacher must draw on at least all three interrelated dimensions of knowledge to determine a developmentally appropriate strategy or intervention.

Principles of child development and learning that inform developmentally appropriate practice

Taken together, these core values define NAEYC's basic commitment to children and underlie its position on developmentally appropriate practice.

Developmentally appropriate practice is based on knowledge about how children develop and learn. As Katz states, "In a developmental approach to curriculum design, . . . [decisions] about what should be learned and how it would best be learned depend on what we know of the learner's developmental status and our understanding of the relationships between early experience and subsequent development" (1995, 109). To guide their decisions about practice, all early childhood teachers need to understand the developmental changes that typically occur in the years from birth through age 8 and beyond, variations in development that may occur, and how best to support children's learning and development during these years.

A complete discussion of the knowledge base that informs early childhood practice is beyond the scope of this document (see, for example, Seefeldt 1992; Sroufe, Cooper, & DeHart 1992; Kostelnik, Soderman, & Whiren 1993; Spodek 1993; Berk 1996). Because development and learning are so complex, no one theory is sufficient to explain these phenomena. However, a broad-based review of the literature on early childhood education generates a set of principles to inform early childhood practice. *Principles* are generalizations that are sufficiently reliable that they should be taken into account when making decisions (Katz & Chard 1989; Katz 1995). Following is a list of

empirically based principles of child development and learning that inform and guide decisions about developmentally appropriate practice.

1. Domains of children's development—physical, social, emotional, and cognitive—are closely related. Development in one domain influences and is influenced by development in other domains.

Development in one domain can limit or facilitate development in others (Sroufe, Cooper, & DeHart 1992; Kostelnik, Soderman, & Whiren 1993). For example, when babies begin to crawl or walk, their ability to explore the world expands, and their mobility, in turn, affects their cognitive development. Likewise, children's language skill affects their ability to establish social relationships with adults and other children, just as their skill in social interaction can support or impede their language development.

Because developmental domains are interrelated, educators should be aware of and use these interrelationships to organize children's learning experiences in ways that help children develop optimally in all areas and that make meaningful connections across domains.

Recognition of the connections across developmental domains is also useful for curriculum planning with the various age groups represented in the early childhood period. Curriculum with infants and toddlers is almost solely driven by the need to support their healthy development in all domains. During the

3. Development proceeds at varying rates from child to child as well as unevenly within different areas of each child's functioning.

Individual variation has at least two dimensions: the inevitable variability around the average or normative course of development and the uniqueness of each person as an individual (Sroufe, Cooper, & DeHart 1992). Each child is a unique person with an individual pattern and timing of growth, as well as individual personality, temperament, learning style, and experiential and family background. All children have their own strengths, needs, and interests; for some children, special learning and developmental needs or abilities are identified. Given the enormous variation among children of the same chronological age, a child's age must be recognized as only a crude index of developmental maturity.

Recognition that individual variation is not only to be expected but also valued requires that decisions about curriculum and adults' interactions with children be as individualized as possible. Emphasis on individual appropriateness is not the same as "individualism." Rather, this recognition requires that children be considered not solely as members of an age group, expected to perform to a predetermined norm and without adaptation to individual variation of any kind. Having high expectations for all children is important, but rigid expectations of group norms do not reflect what is known about real differences in individual development and learning during the early years. Group-norm expectancy can be especially harmful for children with special learning and developmental needs (NEGP 1991; Mallory 1992; Wolery, Strain, & Bailey 1992).

4. Early experiences have both cumulative and delayed effects on individual children's develo24(end´[(Early experr T*´[e bot/o Tw T´fA2q311Gr)24(oup-d. I;EGPexistyre)-24t)-245i/

appropriate programs provide opportunities for children to broaden and deepen their behavioral knowledge by providing a variety of firsthand experiences and by helping children acquire symbolic knowledge through representing their experiences in a variety of media, such as drawing, painting, construction of models, dramatic play, verbal and written descriptions (Katz 1995).

Even very young children are able to use various media to represent their understanding of concepts. Furthermore, through representation of their knowledge, the knowledge itself is enhanced (Edwards, Gandini, & Forman 1993; Malaguzzi 1993; Forman 1994). Representational modes and media also vary with the age of the child. For instance, most learning for infants and toddlers is sensory and motoric, but by age 2 children use one object to stand for another in play (a block for a phone or a spoon for a guitar).

6. Development and learning occur in and are influenced by multiple social and cultural contexts.

Bronfenbrenner (1979, 1989, 1993) provides an ecological model for understanding human development. He explains that children's development is best understood within the sociocultural context of the family mo0.036 Tw d23(h10, t)-24(h)2kextu'si,(use d t)25(o)-202(ience416ogt)-24T1_0 1 Tfhenharietchhtf firolyr1e6on,2e6s6.

2. Teaching to enhance development and learning

Adults are responsible for ensuring children's healthy development and learning. From birth, relationships with adults are critical determinants of children's healthy social and emotional development and serve as well as mediators of language and intellectual development. At the same time, children are active constructors of their own understanding, who benefit from initiating and regulating their own learning activities and interacting with peers. Therefore, early childhood teachers strive to achieve an optimal balance between children's self-initiated learning and adult guidance or support.

Teachers accept responsibility for actively supporting children's development and provide occasions for children to acquire important knowledge and skills. Teachers use their knowledge of child development and learning to identify the range of activities, materials, and learning experiences that are appropriate for a group or individual child. This knowledge is used in conjunction with knowledge of the context and understanding about individual children's growth patterns, strengths, needs, interests, and experiences to design the curriculum and learning environment and guide teachers' interactions with children. The following guidelines describe aspects of the teachers' role in making decisions about practice:

A. Teachers respect, value, and accept children and treat them with dignity at all times.

B. Teachers make it a priority to know each child well.

(1) Teachers establish positive, personal relationships with children to foster the child's development and keep informed about the child's needs and potentials. Teachers listen to children and adapt their responses to children's differing needs, interests, styles, and abilities.

(2) Teachers continually observe children's spontaneous play and interaction with the physical environment and with other children to learn about their interests, abilities, and developmental progress. On the basis of this information, teachers plan experiences that enhance children's learning and development.

(3) Understanding that children develop and learn in the context of their families and communities, teachers establish relationships with families that increase their knowledge of children's lives outside the classroom and their awareness of the perspectives and priorities of those individuals most significant in the child's life.

(4) Teachers are alert to signs of undue stress and traumatic events in children's lives and aware of effective strategies to reduce stress and support the development of resilience.

(5) Teachers are responsible at all times for all children under their supervision and plan for children's increasing development of self-regulation abilities.

C. Teachers create an intellectually engaging, responsive environment to promote each child's learning and development.

(1) Teachers use their knowledge about children in general and the particular children in the group as well as their familiarity with what children need to learn and develop in each curriculum area to organize the environment and plan curriculum and teaching strategies.

(2) Teachers provide children with a rich variety of experiences, projects, materials, problems, and ideas to explore and investigate, ensuring that these are worthy of children's attention.

(3) Teachers provide children with opportunities to make meaningful choices and time to explore through active involvement. Teachers offer children the choice to participate in a small-group or a solitary activity, assist and guide children who are not yet able to use and enjoy child-choice activity periods, and provide opportunities for practice of skills as a self-chosen activity.

(4) Teachers organize the daily and weekly schedule and allocate time so as to provide children with extended blocks of time in which to engage in play, projects, and/or study in integrated curriculum.

D. Teachers make plans to enable children to attain key curriculum goals across various disciplines, such as language arts, mathematics, social studies, science, art, music, physical education, and health (see "Constructing appropriate curriculum," pp. 20–21).

(1) Teachers incorporate a wide variety of experiences, materials and equipment, and teaching strategies in constructing curriculum to accommodate a broad range of children's individual differences in prior experiences, maturation rates, styles of learning, needs, and interests.

(2) Teachers bring each child's home culture and language into the shared culture of the school so that the unique contributions of each group are recognized and valued by others.

narrowing the curriculum to those basic skills that can be easily measured on multiple-choice tests diminishes the intellectual challenge for many children. Such intellectually impoverished curriculum underestimates the true competence of children, which has been demonstrated to be much higher than is often assumed (Gelman & Baillargeon 1983; Gelman & Meck 1983; Edwards, Gandini, & Forman 1993; Resnick 1996). Watered-down, oversimplified curriculum leaves many children unchallenged, bored, uninterested, or unmotivated. In such situations, children's experiences are marked by a great many missed opportunities for learning.

On the other hand, curriculum expectations in the early years of schooling sometimes are not appropriate for the age groups served. When next-grade expectations of mastery of basic skills are routinely pushed down to the previous grade and whole group and teacher-led instruction is the dominant teaching strategy, children who cannot sit still and attend to teacher lectures or who are bored and unchallenged or frustrated by doing workbook pages for long periods of time are mislabeled as immature, disruptive, or unready for school (Shepard & Smith 1988). Constructing appropriate curriculum requires attention to at least the following guidelines for practice:

A. Developmentally appropriate curriculum provides for all areas of a child's development: physical, emotional, social, linguistic, aesthetic, and cognitive.

B. Curriculum includes a broad range of content across disciplines that is socially relevant, intellectually engaging, and personally meaningful to children.

C. Curriculum builds upon what children already know and are able to do (activating prior knowledge) to consolidate their learning and to foster their acquisition of new concepts and skills.

D. Effective curriculum plans frequently integrate across traditional subject-matter divisions to help children make meaningful connections and provide opportunities for rich conceptual development; focusing on one subject is also a valid strategy at times.

E. Curriculum promotes the development of knowledge and understanding, processes and skills, as well as the dispositions to use and apply skills and to go on learning.

F. Curriculum content has intellectual integrity, reflecting the key concepts and tools of inquiry of recognized disciplines in ways that are accessible and achievable for young children, ages 3 through 8 (e.g., Bredekamp & Rosegrant 1992, 1995). Children directly participate in study of the disciplines, for instance, by conducting scientific experiments, writing, performing, solving mathematical problems, collecting and analyzing data, collecting oral history, and performing other roles of experts in the disciplines.

G. Curriculum provides opportunities to support children's home culture and language while also developing all children's abilities to participate in the shared culture of the program and the community.

H. Curriculum goals are realistic and attainable for most children in the designated age range for which they are designed.

I. When used, technology is physically and philosophically integrated in the classroom curriculum and teaching. (See "NAEYC Position Statement: Technology and Young Children—Ages Three through Eight" [NAEYC 1996b].)

4. Assessing children's learning and development

Assessment of individual children's development and learning is essential for planning and implementing appropriate curriculum. In developmentally appropriate programs, assessment and curriculum are integrated, with teachers continually engaging in observational assessment for the purpose of improving teaching and learning.

Accurate assessment of young children is difficult because their development and learning are rapid, uneven, episodic, and embedded within specific cultural and linguistic contexts. Too often, inaccurate and inappropriate assessment measures have been used to label, track, or otherwise harm young children. Developmentally appropriate assessment practices are based on the following guidelines:

A. Assessment of young children's progress and achievements is ongoing, strategic, and purposeful. The results of assessment are used to benefit children—in adapting curriculum and teaching to meet the developmental and learning needs of

children, communicating with the child's family, and evaluating the program's effectiveness for the purpose of improving the program.

B. The content of assessments reflects progress toward important learning and developmental goals. The program has a systematic plan for collecting and using assessment information that is integrated with curriculum planning.

C. The methods of assessment are appropriate to the age and experiences of young children. Therefore, assessment of young children relies heavily on the results of observations of children's development, descriptive data, collections of representative work by children, and demonstrated performance during authentic, not contrived, activities. Input from families as well as children's evaluations of their own work are part of the overall assessment strategy.

D. Assessments are tailored to a specific purpose and used only
for the purpose for which they have1 (n)7(g)|TJ˝-0y˝nd us .332 Td˝[his(v)7(a<7(v)-49(i t)-246-24(l)1(as c ar)12(ete)|TJw -0.7 Td53r16(svalid(t)
-13.476([(f)-12(erf t0.021c9a2ect(0.02a)1 (n-ze2(bysst(i)-s(0.0tc(e pur)-36(p3364(h)rn. 4(-36(rn.o32 Tw--40)24(en,lg guid,l)|TJ˝EMew)12(e)-24(h)1

D. Teachers acknowledge parents' choices and goals for children and respond with sensitivity and respect to parents' preferences and concerns without abdicating professional responsibility to children.

E . Teachers and parents share their knowledge of the child and understanding of children's development and learning as part of day-to-day communication and planned conferences. Teachers support families in ways that maximally promote family decisionmaking capabilities and competence.

F . To ensure more accurate and complete information, the ypl(i)2(t)shz(a)2 11 0 0 11(each)24(ee3qd5(y a)-2du8 T(ldr)24(en.)]TJ˝s.)].shz(a)2 11<
reunderse ifie(spec2)]TJaao12(e a12(nd co,)]T)12(it)-36(i4(o)1(i4(nd g), cer)-12(ns w)-48(24(os/Span <</MCID 8 >>BDC ˝/T1131 1 Tf˝0.1
r-1.332 T6120undersnd gnneds wsultcern wwholpment eY24(hou038 Trional)]TJ˝lit ˝/Sw T*˝[(r˝/P11(each))-36(y t)24(o)(hoyJ˝0.001 T)]T

alized instruction, tutoring, or other individual strategies are used to accelerate children's learning (Shepard & Smith 1989; Ross et al. 1995).

7. Early childhood programs use multiple indicators of progress in all development domains to evaluate the effect of the program on children's development and learning and regularly report children's progress to parents. Group-administered, standard-ized, multiple-choice achievement tests are not used before third grade, preferably before fourth grade. When such tests are used to demonstrate public accountability, a sampling method is used (see Shepard 1994).

References

Adams, G., & J. Sandfort. 1994. *First steps, promising futures: State prekindergarten initiatives in the early 1990s.* Washington, DC: Children's Defense Fund.

Alexander, K.L., & D.R. Entwisle. 1988. *Achievement in the first 2 years of school: Patterns and processes.* Mono-graphs of the Society for Research in Child Development, vol. 53, no. 2, serial no. 218. Ann Arbor: University of Michigan.

Arnett, J. 1989. Caregivers in day-care centers: Does training matter? *Journal of Applied Developmental Psychology* 10 (4): 541–52.

Asher, S., S. Hymel, & P. Renshaw. 1984. Loneliness in children. *Child Development* 55: 1456–64.

Barnett, W.S. 1995. Long-term effects of early childhood programs on cognitive and school outcomes. *The Future of*

Carnegie Task Force on Learning in the Primary Grades. 1996. *Years of promise: A comprehensive learning strategy for America's children.* New York: Carnegie Corporation of New York.

Carta, J., I. Schwartz, J. Atwater, & S. McConnell. 1991. Developmentally appropriate practice: Appraising its usefulness for young children with disabilities. *Topics in Early Childhood Special Education* 11 (1): 1–20.

Case, R., & Y. Okamoto. 1996. *The role of central conceptual structures in the development of children's thought.* Monographs of the Society of Research in Child Development, vol. 61, no. 2, serial no. 246. Chicago: University of Chicago Press.

Charlesworth, R., C.H. Hart, D.C. Burts, & M. DeWolf. 1993. The LSU studies: Building a research base for developmentally appropriate practice. In *Perspectives on developmentally appropriate practice,* vol. 5 of *Advances in early education and day care*, ed. S. Reifel, 3–28. Greenwich, CT: JAI Press.

Chugani, H., M.E. Phelps, & J.C. Mazziotta. 1987. Positron emission tomography study of human brain functional development. *Annals of Neurology* 22 (4): 495.

Cohen, N., & K. Modigliani. 1994. The family-to-family project: Developing family child care providers. In *The early childhood career lattice: Perspectives on professional development,* eds. J. Johnson & J.B. McCracken, 106–10. Washington, DC: NAEYC.

Copple, C., I.E. Sigel, & R. Saunders. 1984. *Educating the young thinker: Classroom strategies for cognitive growth.* Hillsdale, NJ: Erlbaum.

Cost, Quality, & Child Outcomes Study Team. 1995. *Cost, quality, and child outcomes in child care centers, public report.* 2d ed. Denver: Economics Department, University of Colorado at Denver.

Dana Alliance for Brain Initiatives. 1996. *Delivering results: A progress report on brain research.* Washington, DC: Author.

DEC/CEC (Division for Early Childhood of the Council for Exceptional Children). 1994. Position on inclusion. *Young Children* 49 (5): 78.

DEC (Division for Early Childhood) Task Force on Recommended Practices. 1993. *DEC recommended practices: Indicators of quality in programs for infants and young children with special needs and their families.* Reston, VA: Council for Exceptional Children.

DEC/CEC & NAEYC (Division for Early Childhood of the Council for Exceptional Children & the National Association for the Education of Young Children. 1993. *Understanding the ADA—The Americans with Disabilities Act: Information for early childhood programs.* Pittsburgh, PA, & Washington, DC: Authors.

DeVries, R., & W. Kohlberg. 1990. *Constructivist early*

Legters, N., & R.E. Slavin. 1992. Elementary students at risk: A status report. Paper commissioned by the Carnegie Corporation of New York for meeting on elementary-school reform. 1–2 June.

Levy, A.K., L. Schaefer, & P.C. Phelps. 1986. Increasing preschool effectiveness: Enhancing the language abilities of 3- and 4-year-old children through planned sociodramatic play. *Early Childhood Research Quarterly* 1 (2): 133–40.

Levy, A.K., C.H. Wolfgang, & M.A. Koorland. 1992. Sociodramatic play as a method for enhancing the language performance of kindergarten age students. *Early Childhood Research Quarterly* 7 (2): 245–62.

Malaguzzi, L. 1993. History, ideas, and basic philosophy. In *The hundred languages of children: The Reggio Emilia approach to early childhood education*, eds. C. Edwards, L. Gandini, & G. Forman, 41–89. Norwood, NJ: Ablex.

Mallory, B. 1992. Is it always appropriate to be developmental? Convergent models for early intervention practice. *Topics in Early Childhood Special Education* 11 (4): 1–12.

Mallory, B. 1994. Inclusive policy, practice, and theory for young children with developmental differences. In *Diversity and developmentally appropriate practices: Challenges for early childhood education*, eds. B. Mallory & R. New, 44–61. New York: Teachers College Press.

Mallory, B.L., & R.S. New. 1994a. *Diversity and developmentally appropriate practices: Challenges for early childhood education.* New York: Teachers College Press.

Mallory, B.L., & R.S. New. 1994b. Social constructivist theory and principles of inclusion: Challenges for early childhood special education. *Journal of Special Education* 28 (3): 322–37.

Marcon, R.A. 1992. Differential effects of three preschool models on inner-city 4-year-olds. *Early Childhood Research Quarterly* 7 (4): 517–30.

Maslow, A. 1954. *Motivation and personality.* New York: Harper & Row.

Miller, L.B., & R.P. Bizzell. 1984. Long-term effects of four preschool programs: Ninth and tenth-grade results. *Child Development* 55 (4): 1570–87.

Mitchell, A., M. Seligson, & F. Marx. 1989. *Early childhood programs and the public schools.* Dover, MA: Auburn House.

Morrow, L.M. 1990. Preparing the classroom environment to promote literacy during play. *Early Childhood Research Quarterly* 5 (4): 537–54.

NAEYC. 1987. *NAEYC position statement on licensing and other forms of regulation of early childhood programs in centers and family day care.* Washington, DC: Author.

NAEYC. 1991. *Accreditation criteria and procedures of the National Academy of Early Childhood Programs.* Rev. ed. Washington, DC: Author.

NAEYC. 1993. *Compensation guidelines for early childhood professionals.* Washington, DC: Author.

NAEYC. 1994. NAEYC position statement: A conceptual framework for early childhood professional development, adopted November 1993. *Young Children* 49 (3): 68–77.

NAEYC. 1996a. NAEYC position statement: Responding to linguistic and cultural diversity—Recommendations for effective early childhood education. *Young Children* 51 (2): 4–12.

NAEYC. 1996b. NAEYC position statement: Technology and young children—Ages three through eight. *Young Children* 51 (6): 11–16.

NAEYC & NAECS/SDE (National Association of Early Childhood Specialists in State Departments of Education). 1992. Guidelines for appropriate curriculum content and assessment in programs serving children ages 3 through 8. In *Reaching potentials: Appropriate curriculum and assessment for young children, volume 1,* eds. S. Bredekamp & T. Rosegrant, 9–27. Washington, DC: NAEYC.

NASBE (National Association of State Boards of Education). 1991. *Caring communities: Supporting young children and families.* Alexandria, VA: Author.

Natriello, G., E. McDill, & A. Pallas. 1990. *Schooling disadvantaged children: Racing against catastrophe.* New York: Teachers College Press.

NCES (National Center for Education Statistics). 1993. *The condition of education, 1993.* Washington, DC: U.S. Department of Education.

NCSL (National Conference of State Legislatures). 1995. *Early childhood care and education: An investment that works.* Denver: Author.

NEGP (National Education Goals Panel). 1991. *National education goals report: Building a nation of learners.* Washington, DC: Author.

New, R. 1993. Cultural variations on developmentally appropriate practice: Challenges to theory and practice. In *The hundred languages of children: The Reggio Emilia approach to early childhood education*, eds C. Edwards, L. Gandini, & G. Forman, 215–32. Norwood, NJ: Ablex.

New, R. 1994. Culture, child development, and developmentally appropriate practices: Teachers as collaborative researchers. In *Diversity and developmentally appropriate practices: Challenges for early childhood education*, eds. B. Mallory & R. New, 65–83. New York: Teachers College Press.

Nye, B.A., J. Boyd-Zaharias, & B.D. Fulton. 1994. *The lasting benefits study: A continuing analysis of the effect of small class size in kindergarten through third grade on student achievement test scores in subsequent grade levels— seventh grade (1992–93), technical report.* Nashville: Center of Excellence for Research in Basic Skills, Tennessee State University.

Nye, B.A., J. Boyd-Zaharias, B.D. Fulton, & M.P. Wallenhorst. 1992. Smaller classes really are better. *The American School Board Journal* 179 (5): 31–33.

Parker, J.G., & S.R. Asher. 1987. Peer relations and later personal adjustment: Are low-accepted children at risk? *Psychology Bulletin* 102 (3): 357–89.

Phillips, C.B. 1994. The movement of African-American children through sociocultural contexts: A case of conflict resolution. In *Diversity and developmentally appropriate practices: Challenges for early childhood education*, eds. B. Mallory & R. New, 137–54. New York: Teachers College Press.

Phillips, D.A., K. McCartney, & S. Scarr. 1987. Child care quality and children's social development. *Developmental Psychology* 23 (4): 537–43.

Piaget, J. 1952. *The origins of intelligence in children.* New York: International Universities Press.

Plomin, R. 1994a. *Genetics and experience: The interplay between nature and nurture.* Thousand Oaks, CA: Sage.

Plomin, R. 1994b. Nature, nurture, and social development. *Social Development* 3: 37–53.

Powell, D. 1994. Parents, pluralism, and the NAEYC statement on developmentally appropriate practice. In *Diversity and developmentally appropriate practices: Challenges for early childhood education*, eds. B. Mallory & R. New, 166–82. New York: Teachers College Press.

Tobin, J., D. Wu, & D. Davidson. 1989. *Preschool in three cultures.* New Haven, CT: Yale University Press.

U.S. Department of Health & Human Services. 1996. *Head Start performance standards.* Washington, DC: Author.

Vandell, D.L., & M.A. Corasanti. 1990. Variations in early child care: Do they predict subsequent social, emotional, and cognitive differences? *Early Childhood Research Quarterly* 5 (4): 555–72.

Vandell, D.L., & C.D. Powers. 1983. Day care quality and children's freeplay activities. *American Journal of Orthopsychiatry* 53 (4): 493–500.

Vandell, D.L., V.K. Henderson, & K.S. Wilson. 1988. A longitudinal study of children with day-care experiences of varying quality. *Child Development* 59 (5): 1286–92.

Vygotsky, L. 1978. *Mind in society: The development of higher psychological processes.* Cambridge, MA: Harvard University Press.

Wardle, F. 1996. Proposal: An anti-bias and ecological model for multicultural education. *Childhood Education* 72 (3): 152–56.

Wertsch, J. 1985. *Culture, communication, and cognition: Vygotskian perspectives.* New York: Cambridge University Press.

White, S.H. 1965. Evidence for a hierarchical arrangement of learning processes. In *Advances in child development and behavior,* eds. L.P. Lipsitt & C.C. Spiker, 187–220. New York: Academic Press.

Whitebook, M., C. Howes, & D. Phillips. 1989. *The national child care staffing study: Who cares? Child care teachers and the quality of care in America.* Final report. Oakland, CA: Child Care Employee Project.

Wieder, S., & S.I. Greenspan. 1993. The emotional basis of learning. In *Handbook of research on the education of young children,* ed. B. Spodek, 77–104. New York: Macmillan.

Willer, B. 1990. *Reaching the full cost of quality in early childhood programs.* Washington, DC: NAEYC.

Willer, B., S.L. Hofferth, E.E. Kisker, P. Divine-Hawkins, E. Farquhar, & F.B. Glantz. 1991. *The demand and supply of child care in 1990.* Washington, DC: NAEYC.

Witkin, H. 1962. *Psychological differentiation: Studies of development.* New York: Wiley.

Wolery, M., & J. Wilbers, eds. 1994. *Including children with special needs in early childhood programs.* Washington, DC: NAEYC.

Wolery, M., P. Strain, & D. Bailey. 1992. Reaching potentials of children with special needs. In *Reaching Potentials: Appropriate curriculum and assessment for young children, volume 1,* eds. S. Bredekamp & T. Rosegrant, 92–111. Washington, DC: NAEYC.

Zero to Three: The National Center. 1995. *Caring for infants and toddlers in groups: Developmentally appropriate practice.* Arlington, VA: Author.