



Developmentally Appropriate Practice: What Does Research Tell Us?

Loraine Dunn and Susan Kontos

Those who advocate for developmentally appropriate practice (DAP) do so based on the conviction that these classroom practices enhance children's development and facilitate learning. This ERIC Digest examines recent research on DAP and social-emotional and cognitive development, and describes what we have learned about DAP in early childhood classrooms.

Social-Emotional Development

Given the context in which the National Association for the Education of Young Children's original position statement was released, namely Elkind's (1981) discussion of the "hurried child," it is not surprising that the earliest studies on developmentally appropriate practice focused on stress and emotional development. Two research teams documented that children exhibit more stress in didactic environments than in child-initiated environments. In the Hyson, Hirsh-Pasek, and Rescorla study (1990), preschool children enrolled in child-initiated programs displayed lower levels of test anxiety than children enrolled in academic programs, regardless of parental preferences for classroom approaches. In the second study (Burts et al., 1990), children in inappropriate classrooms exhibited more total stress behaviors throughout the day and more stress behaviors during group times and workbook/worksheet activities.

Cognitive Development

Turning now to cognitive development, we focus on creativity, language development, children's perceptions of their cognitive competence, and traditional measures of achievement. Classrooms characterized by child initiation appear to facilitate children's creative development. The Hyson research team found that children in child-initiated classrooms scored higher on measures of creativity, or divergent thinking, than children in academically oriented classrooms (Hirsh-Pasek, Hyson, & Rescorla, 1990; Hyson, Hirsh-Pasek, & Rescorla, 1990).

In two other studies on language development in child-initiated and academically focused programs, the developmentally appropriate, or child-initiated, programs were associated with better language outcomes. Progress reports from public-school preschool programs indicated that children in child-initiated classrooms had better verbal skills than children in academically oriented programs (Marcon, 1992). Children's receptive language was better

in programs with higher quality literacy environments and when developmentally appropriate activities were more prevalent (Dunn, Beach, & Kontos, 1994).

Young children in developmentally appropriate programs also seemed more confident in their own cognitive skills. Children described their cognitive competence more positively when they attended child-initiated rather than academically oriented programs (Mantzicopoulos, Neuharth-Pritchett, & Morelock, 1994; Stipek et al., 1995).

When using the traditional measuring sticks of achievement tests and report card grades, it is difficult to say whether child-centered or didactic programs are superior. Similar to the state of affairs for social development, the available research is equivocal with regard to these assessments of cognitive development. The majority of the studies indicate that a didactic approach is *not* necessary to promote children's learning of academic skills. Supporting developmentally appropriate practice are studies by Sherman and Mueller (1996) and Marcon (1992). Sherman and Mueller (1996) observed better reading and mathematics achievement scores for children attending developmentally appropriate kindergarten through second grade. Preschool children in Marcon's (1992) study had more positive progress reports overall and specifically on math and science when they attended child-initiated classrooms. Mathematics achievement was similar for children in both types of classrooms, however. Hyson, Hirsh-Pasek, and Rescorla (1990) found no differences in academic achievement as a function of the developmental appropriateness of the program preschool children attended.

Studies following children over time suggest there may be academic benefits to DAP in the long run. Children experiencing preschool programs rating high on developmental appropriateness do well academically in first grade (Frede & Barnett, 1992). In addition, children of low socioeconomic status attending appropriate kindergarten classrooms tend to have better reading achievement scores in first grade than children attending inappropriate classrooms (Burts et al., 1993). These are encouraging findings, given that the classroom children currently attend is also likely to influence their performance. The fact that differences between children in more- and less-appropriate classrooms are evident a year or more later suggests that children's learning environments during these early years are important.

What Have We Learned?

What have we learned from research on DAP? First, developmentally appropriate practices are not the norm in early childhood programs. Although teachers endorse this pedagogical method, they often struggle with implementation. Professional preparation designed to help teachers implement developmentally appropriate practice can be quite effective. We need to learn more about how to most effectively support teachers' implementation of developmentally appropriate practice.

Second, parents and teachers may not agree on the value of DAP. Helping parents understand the link between DAP and basic skill acquisition may prevent potential tensions between parents and teachers over instructional methods. The emotional costs of academically oriented classrooms, particularly for children from low-income, linguistically or culturally diverse groups, behoove us to make parents aware of the potential benefits of DAP.

Third, developmentally appropriate practices create a positive classroom climate conducive to children's healthy emotional development. Emotional development is an area often neglected when making programming decisions. This literature reminds us that children's emotions and their participation in classroom activities are vitally linked.

Fourth, we have only scratched the surface in understanding how developmentally appropriate practices influence children's social development. While developmentally appropriate practices enhance children's social skills in general, additional data are needed to determine how these practices affect other facets of socialization. Classroom practices and children's cognitive development interact in complex ways.

Conclusion

Taken together, the research favors DAP. In general, child-initiated environments were associated with higher levels of cognitive functioning. Coupling this information with the findings on stress and motivation provides a strong argument for developmentally appropriate practice, especially for low-income children—the very children whose parents may prefer academically oriented programs. While academic environments sometimes may result in higher levels of achievement, this achievement may come at emotional costs to the child. Given that similar cognitive advantages also occur in child-initiated environments, it would seem beneficial to explore ways to communicate more effectively how cognitive development is enhanced through developmentally appropriate practices.

Condensed by permission from L. Dunn & S. Kontos, "Research in Review: What Have We Learned about Developmentally Appropriate Practice?" Young Children 52(5): 4-13. Copyright 1997 by the National Association for the Education of Young Children. PS 526 718.

For More Information

Bredenkamp, Sue, & Copple, Carol (Eds.). (1997). *Developmentally appropriate practice in early childhood programs* (Rev. ed). Washington, DC: National Association for the Education of Young Children. ED 403 023.

Burts, Diane C.; Hart, Craig H.; Charlesworth, Rosalind; & Kirk, L. (1990). A comparison of frequencies of stress behaviors observed in kindergarten children in classrooms

with developmentally appropriate versus developmentally inappropriate instructional practices. *Early Childhood Research Quarterly, 5*(3), 407-423. EJ 421 825.

Burts, Diane C.; Hart, Craig H.; Charlesworth, Rosalind; DeWolf, D. Michele; Ray, Jeanette; Manuel, Karen; & Fleege, Pamela O. (1993). Developmental appropriateness of kindergarten programs and academic outcomes in first grade. *Journal of Research in Childhood Education, 8*(1), 23-31. EJ 493 673.

Dunn, Loraine; Beach, Sara Ann; & Kontos, Susan. (1994). Quality of the literacy environment in day care and children's development. *Journal of Research in Childhood Education, 9*(1), 24-34. EJ 510 543.

Elkind, David. (1981). *The hurried child*. Reading, MA: Addison-Wesley.

Frede, Ellen, & Barnett, W. Steve. (1992). Developmentally appropriate public school preschool: A study of implementation of the High/Scope curriculum and its effects on disadvantaged children's skills at first grade. *Early Childhood Research Quarterly, 7*(4), 483-499. EJ 458 102.

Hirsh-Pasek, Kathy; Hyson, Marion; & Rescorla, Leslie. (1990). Academic environments in preschool: Do they pressure or challenge young children? *Early Education and Development, 1*(6), 401-423.

Hyson, Marion C.; Hirsh-Pasek, Kathy; & Rescorla, Leslie. (1990). The classroom practices inventory: An observation instrument based on NAEYC's guidelines for developmentally appropriate practices for 4- and 5-year-old children. *Early Childhood Research Quarterly, 5*(4), 475-494. EJ 423 540.

Mantzicopoulos, Panayota Y.; Neuharth-Pritchett, Stacy; & Morelock, J. B. (1994, April). *Academic competence, social skills, and behavior among disadvantaged children in developmentally appropriate and inappropriate classrooms*. Paper presented at the Annual Meeting of the American Educational Research Association, New Orleans.

Marcon, Rebecca A. (1992). Differential effects of three preschool models on inner-city 4-year-olds. *Early Childhood Research Quarterly, 7*(4), 517-530. EJ 458 104.

Sherman, Carey Wexler, & Mueller, Daniel P. (1996, June). *Developmentally appropriate practice and student achievement in inner-city elementary schools*. Paper presented at Head Start's Third National Research Conference, Washington, DC. ED 401 354.

Stipek, Deborah; Feiler, Rachele; Daniels, Denise; & Milburn, Sharon. (1995). Effects of different instructional approaches on young children's achievement and motivation. *Child Development, 66*(1), 209-223. EJ 501 879.

References identified with an ED (ERIC document), EJ (ERIC journal), or PS number are cited in the ERIC database. Most documents are available in ERIC microfiche collections at more than 900 locations worldwide and can be ordered through EDRS: (800) 443-ERIC. Journal articles are available from the original journal, interlibrary loan services, or article reproduction clearinghouses such as: UnCover (800) 787-7979, UMI (800) 732-0616, or ISI (800) 523-1850.

This publication was funded by the Office of Educational Research and Improvement, U.S. Department of Education, under contract no. DERR93002007. The opinions expressed in this report do not necessarily reflect the positions or policies of OERI. ERIC Digests are in the public domain and may be freely reproduced.