



Instructional Models for Early Childhood Education

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What is the best approach for teaching young children? No question could be more pressing as teachers, researchers, and policy makers strive to make sure all children are “ready to learn.” Yet, as of now, there is no definitive answer. This Digest discusses the existing knowledge base on the differential effects of various approaches to early education. Concurrently, the field eagerly anticipates results from the recently funded Preschool Curriculum Evaluation Research initiative, which will use randomized trials to examine a variety of preschool curricular approaches.

Early Empirical Studies and Longitudinal Follow-up

The work began in the mid-1960s when Head Start was initiated. Well-implemented, conceptually coherent programs grounded in the scientific theories of the time were studied for their effects on children in the short and long term. Three studies are especially noteworthy (see Golbeck, 2001, for more detail about each study).

Miller and Bizzell (1983a, 1983b) studied (1) a traditional nursery school, also called Bank Street; (2) Montessori; (3) a direct instruction approach called DISTAR; and (4) a program called DARCEE, which blended specific pre-academic goals and motivational goals. Short-term effects of the programs were consistent with program goals. DISTAR and DARCEE produced the highest outcomes in pre-academic areas, while the more child-centered programs led to higher levels of inventiveness, curiosity, and social participation. However, by second grade, the boys from the Montessori program appeared to be outperforming other groups in reading and also showed a less severe decline in IQ. This advantage was maintained through middle school. Unlike the boys, girls seemed to fare better in the more pre-academic DARCEE program.

Karnes and colleagues (1983) studied five model approaches, including traditional, Montessori, and direct instruction. At the end of first grade, the children from the most highly structured pre-academic programs were most successful in school. But in a later follow-up, the original Montessori group contained the highest percentage of high school graduates, with the traditional program group close behind. Relatively low rates were shown for the other programs. On a composite indicator of success in school, the Montessori boys outperformed boys in other programs.

Researchers at the High/Scope Foundation compared their own Cognitively Oriented Curriculum, direct instruction, and a traditional, child-centered theme-based approach. Again, there was a slight advantage for direct instruction initially, but long-term data collected in adolescence showed higher levels of social adjustment for children in High/Scope and traditional programs (Schweinhart & Weikart, 1997). (These results must be viewed with caution because the developers were also the evaluators in this study.)

These studies have methodological limitations, but taken together, they present a pattern worthy of more exploration. To the extent that there are any differences across pre-kindergarten programs at the beginning of elementary school, they tended to favor the more teacher-directed approaches. Yet, in the long term, children in the child-centered programs fared at least as well or better. In all three studies, children in the direct instruction program had slightly higher IQ or achievement scores immediately following preschool. By middle school, these advantages had eroded, and boys, especially, were floundering more than peers from at least some of the child-centered programs.

The success of the Montessori models studied by Miller and colleagues (1983a, 1983b) and also by Karnes et al. (1983) merits closer scrutiny. Although Montessori models vary, in these studies, boys actually outperformed children in other programs at seventh and eighth grades. Karnes reported that children from the Montessori program showed the highest levels of school success, although they did not necessarily show the highest IQ scores. Perhaps working independently and persisting—both components of Montessori—were important program elements. There may be similarities between instructional strategies found in the DARCEE program, the Montessori approach, and more recent Vygotskian approaches to instruction. The Montessori teacher appears to scaffold from a distance. She keeps extensive observational notes on individual children, using this information to decide when to introduce new materials in a demonstration lesson. She supports the child as he works with carefully structured didactic materials in a carefully sequenced instructional experience.

Recent Research

Complementing these longitudinal studies is more recent work linking specific instructional variables in preschool and kindergarten classrooms to developmentally appropriate instructional practices. Diverse dependent measures have been studied, including child stress, interpersonal reasoning, and motivation for learning. Instructional techniques that emphasize drill, worksheets, and pre-academics, while minimizing child choice and decision making, lead to higher levels of child stress (Burts et al., 1990; Hyson & Molinaro, in Golbeck, 2001). The effects appear to be most pronounced among boys (Burts et al., 1992).

Motivational outcomes also vary as a function of preschool instructional practices. Although children in more academically oriented preschool programs fared better on achievement tests when compared to children in more child-centered preschool programs, the children rated their abilities lower, showed lower expectations for success on academic tasks, showed more dependency on adults, evidenced less pride in their accomplishments, and claimed to worry more about school. A subsequent study replicated these findings in preschool but suggested that these relationships become

more complex in kindergarten, making it difficult to separate the type of instruction from the social context of teachers' behavior (Stipek et al., 1995, 1998; Stipek & Greene, in Golbeck, 2001).

A Call for New Paradigms

Empirical support can be found for child-centered approaches to preschool instruction, especially if the emphasis is upon long-term goals and social-emotional factors related to academic success (e.g., self-regulation). Research suggests that there is an important role for play or active "meaning making" by the child in the classroom, but this must occur within an environment offering the teacher a clear instructional role (Case, Griffin, & Kelly, in Golbeck, 2001; see also Dickinson, 2002). As Stipek et al. (1995; 1998) note, the simple dichotomy between teacher directed and child centered is not adequate for characterizing the complexity of instructional practices in early childhood, and further research combining direct instruction with high nurturance is needed. There are varieties of child-centered approaches, and research shows they are not all equally effective. Similarly, there are varieties of teacher-centered approaches. The discrepancy between short-term and long-term outcomes suggests that there are benefits, and risks, associated with several of the approaches studied.

One way to pursue new paradigms for instruction is to ask teachers how they conceptualize their practices. Marcon (1999) queried teachers about their beliefs and practices. She found that when teachers were clear and their responses corresponded to a single coherent theory of young children's learning and development (based either on a didactic learning approach or a more traditional developmental orientation), children fared better than when their teachers' approaches were "eclectic" or inconsistent.

Conclusion

Practitioners, researchers, and policy makers must envision new approaches to instruction integrating proven success with new research on early learning. Developmentally appropriate practices must provide a clear role for the teacher, a sequence of content for the child to learn, and opportunities for self-regulation (Ginsburg et al., in Golbeck, 2001; Roskos & Neuman, 2002). Furthermore, new approaches must acknowledge the complex ecology of young children's learning and development. It is imperative to include (1) the interplay among emotions, social understanding, and cognition within the child (Hyson & Molinaro, in Golbeck, 2001; Pianta, 1999); (2) factors within the classroom such as socioemotional climate and the teacher-child relationship; and (3) the larger context of school, family, and community (Rogoff et al., 2001).

For More Information

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