



When children are engaged in programs that are developmentally appropriate for them, their on-task behavior goes up and they are actually able to learn more than do children in less complex classrooms.

Developmental and Experiential Programs: The Key to Quality Education and Care of Young Children

At the heart of the educational process lies the child. No advances in policy, no acquisitions of new equipment have their desired effect unless they are in harmony with the nature of the child, unless they are fundamentally acceptable to him.

Knowledge of the manner in which children develop, therefore, is of prime importance, both in avoiding educationally harmful practices and in introducing effective ones (Plowden et al. 1966).

Given the well-established fact that young children learn differently, the conclusion that educators must draw is a straightforward one: the education of young children must be in keeping with their unique modes of learning (Elkind 1986).

The Plowden Report and the Elkind statement, written 20 years apart, succinctly summarize the rationale for developmental early childhood education programs. The reality of such programs, described in the "Portrait" accompanying this article, is a complex learning environment designed to support the intellectual development of the young child.

The basic philosophy for developmental early childhood education is

built on two beliefs: that each child is unique and needs a flexible program to develop as an individual and that interaction, understanding, and cooperation in a group are fundamental requirements of society. Developmental programs allow for a flexible and varied curriculum designed to meet a broad range of developmental, socio-economic, and cultural needs (Leeper et al. 1984).

Aspects of a Developmental Program

Four major areas should be considered when planning a quality developmental program. The first involves children's opportunities to practice developmental tasks (Tryon and Lilienthal 1950), including gaining appropriate dependence-independence patterns, establishing healthy patterns for giving and receiving affection, developing a conscience, encouraging physical growth, and creating communication opportunities that enhance the child's use and understanding of symbols.

The second major area concerns teachers and staff. The teachers' knowledge of the physical, social, and cognitive development of children is

Portrait of a Developmentally Designed Early Childhood Classroom

You reach the school building and are impressed by the outdoor learning environment. You notice the flower and vegetable gardens, the play equipment, the animals, and many children of various ages engaged in a number of activities.

One child is sitting in a small rocking chair on a grassy area reading *Charlotte's Web*. A small group of children on the patio are "building a city" with blocks. In one area are fine animal cages containing a duck, a rabbit, and guinea pigs. A six-year-old girl is showing a five-year-old boy how to hold a rabbit correctly.

Around the school is a play area with gymnastic equipment, tire swings, slides, and other apparatus. You turn your attention briefly to a small red-haired boy who is measuring the slide with a measuring tape and recording it in a notebook.

As you walk inside the classroom area, you get the same feeling of action and spontaneity as you did observing the children outside. There are few individual desks in the room. Instead, there are tables supporting interest or learning centers. There are also small work-study tables where the teacher meets with small skill groups in reading and mathematics.

In the language arts center a woman, possibly a parent, is typing a story dictated by two five-year-olds. In the reading corner an older child is reading to a younger one who is stretched out on an oval rug. You spot another mother near a science area holding a small, squirming kitten while talking to a group of three or four children about baby mammals.

The children are engaged in many different activities, some in groups and some alone; they seem to be getting along extremely well. You suddenly feel that something is missing—the teacher. A polite five-year-old tells you, "That is the teacher," pointing to a woman calmly writing on the blackboard. She turns at a request for her presence at a "tea party" prepared and served by a group of boys and girls and joins them with a smile.

—From Barbara Day, *Early Childhood Education: Creative Learning Activities*, 2d ed. (New York: Macmillan, 1983).

essential, as is the interaction between teachers and students. Phyfe-Perkins (1981) showed that where teachers participated more with the children and were less directive, the children exhibited higher levels of cognitive play, task involvement, and verbal interaction.

Third, academics have an important place in the quality program. Children between the ages of two and seven are in the concrete stage of cognitive de-

velopment. They learn from concrete experiences. Thus stories, dictating to the teacher, and counting can be used creatively to expose children to reading, writing, and mathematics. First and second graders also need to continue to learn through concrete experiences as they make the transition into primary school.

The fourth major area considered in planning a quality program is the physical setting. Developmental class-

rooms are designed to encourage children to be independent and to have hands-on learning experiences. Learning centers for math, science, reading, writing, art, cooking, listening, and so on can engage children in experiences that allow them to use their hands, eyes, ears, and minds. Through them children learn about themselves and the world around them.

Organization and Management

Consideration also must be given to curriculum organization and classroom management (Day and Drake 1983). Curriculum organization is made up of three components—learning centers, skills groups, and units of study—that are organized to teach specific topics such as self-concept or animal habitats.

Classroom management components include color coding, which is the systematic use of color to organize games, books, and activities to help young children manage a multitask environment; contracts, which are pictorial (later written) plans for the child's day to ensure that each child stays on task; and external and internal methods of discipline. External discipline refers to how the classroom environment influences the child's behavior. Internal discipline refers to the child's own ability to behave in appropriate ways. Clear expectations, consistent use of rules, and frequent feedback are techniques educators can use to help a young child develop internal discipline.

Effectiveness

We recently conducted a study using the Wasik-Day Open and Traditional Learning Environments and Children's Classroom Behavior Instrument. We found that children had an on-task behavior rate of 92 percent when their classrooms featured eight or more learning centers, were multi-aged (five- and six-year-old children were grouped together), and used contracts (Day and Drake 1983). Because of their exceptional on-task behavior, the children in the developmental classrooms actually received 120 more hours of schooling (20 more school days) over the entire school year than did children whose classrooms did not include learning centers or contracts.

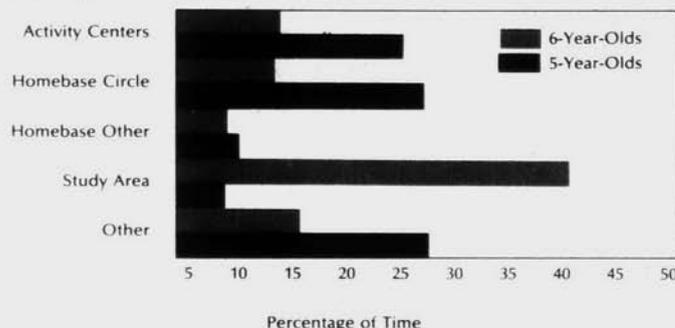
Table 1

Percentage of On-Task Behavior by Classroom Type

Type	Activities	Time	Contract	On-Task Behavior
1	1-2	—	no	79%
2	multiple	1 hr/day	no	79%
3	multiple	½ day	no	78%
4	multiple	all day	no	82%
5a	multiple	all day	yes	85%
5b	multiple	all day	yes	87%
5c	multiple	all day	yes	92%

Table 2

Percentage of Time by Place



Our intent was to investigate the relationship between various types of early childhood classroom environments and the on-task behavior rates generated by the children in each program. For this purpose the classroom environment was defined in terms of the number of simultaneous activity segments operating at any one time (Wilson 1983).

We observed 18 kindergarten and first-grade classrooms and categorized them into five different organizational patterns.

Type 1 Six-year-old children in classrooms that operated for most of the school day with only one or two simultaneous activities.

Type 2 Five-year-old children in classrooms that operated multiple activity segments (including eight or more learning centers) for the first hour of the school day, then operated only one or two simultaneous activities for the rest of the day.

Type 3 Six-year-old children in classrooms that operated multiple activity segments during the morning. The afternoon included only one or two simultaneous activity segments.

Type 4 Five-year-old children in classrooms that had multiple activity segments operating all day.

Type 5 Five- and six-year-old children in classrooms that operated multiple activity segments all day and used written contracts as a management technique.

Children in Type 5 classrooms were grouped in five-year-old kindergarten programs (Type 5a), six-year-old first grade programs (Type 5b), and multi-aged five- and six-year-old programs (Type 5c).

Table 1 shows the on-task behavior rates generated by each type of classroom.

Types 1, 2, and 3, which had little or no simultaneous activity, had similar on-task behavior rates of approximately 78 percent. Small positive changes in on-task behavior were produced by Type 4 classrooms (82 percent). Type 5 classrooms, however, generated on-task behavior rates as high as 92 percent.

These results suggest that a complex early childhood environment featuring learning centers in conjunction with an appropriate management system can achieve rates of on-task behavior higher than those achieved in less complex classrooms that rely on large- and small-group instruction and seatwork assignments.

Additionally, five- and six-year-olds had higher on-task behavior rates when working in learning centers than when engaged in seatwork activities. This suggests that young children need classrooms that feature a variety of learning experiences.

We noted a particularly interesting example of the interaction between the developmental readiness of children for an activity and the on-task behavior rates generated by that activity. Five-year-olds had on-task rates of 29 percent, and six-year-olds had an on-task rate of 93 percent. Reading centers, as they are typically designed in early childhood classrooms, often do not involve five-year-old children, most of whom are nonreaders. There appears to be a need to reorganize reading centers for five-year-olds to include stimuli other than print. For example, books with tape recordings of their content might interest five-

year-olds more than books alone.

Table 2 presents interesting contrasts in how time is actually spent in kindergarten and first-grade classrooms. The typical first-grade day in this study is clearly structured differently from the typical kindergarten day.

Life is a spectrum of all types of overlapping skills and activities. A developmental teaching approach helps the child to see how new skills could fit into a broader realm of experience, thus providing a reason for learning. This method, involving center-oriented, simultaneous activity segments within the learning environment, is one of the most effective approaches to total child development. □

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