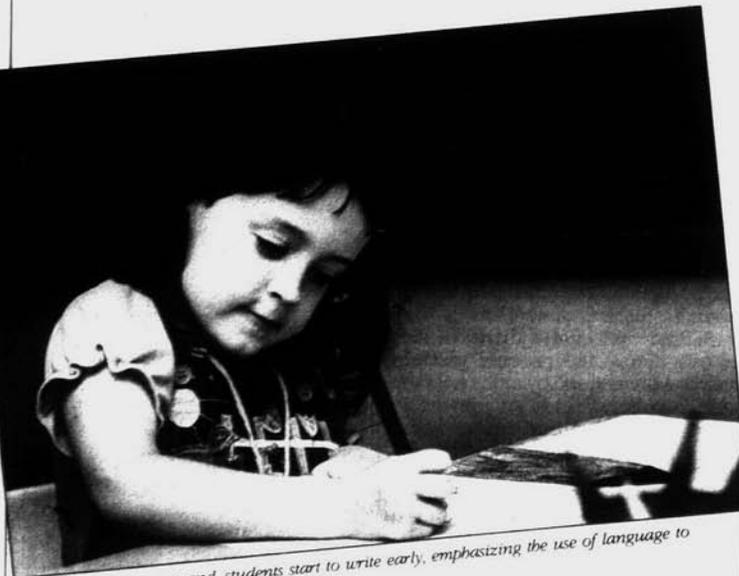


# Integrating Learning for Young Children

Kindergarten teachers in Fairfax County, Virginia, have accolades for a new curriculum that incorporates the entire instructional program in three integrated strands—motor development/music, mathematics/science, and language arts.



In the language arts strand, students start to write early, emphasizing the use of language to express personal meaning.

In April 1984, *Educational Leadership* published an article describing the Primary Integrated Curriculum of the Jefferson County, Colorado, Public Schools. The project had incorporated instruction in a portion of the first- and second-grade curriculum—science, social studies, health, environmental education, and career education (Melle and Wilson 1984). The article was read with great interest in Fairfax County, Virginia, where pressures were mounting to simplify the curriculum while incorporating the best of the research on

children's learning. Two years later, the Fairfax County Public Schools had expanded on Jefferson County's experience to implement a kindergarten curriculum that incorporated the *entire* instructional program in three integrated strands.

## The Starting Point

Already in place or under development in Fairfax County in 1984 were a number of initiatives that offered partial solutions.

- A research-based model for writing instruction at the elementary level

was beginning to notably change the approach to language instruction. (The National Council of Teachers of English has since designated the program a Center of Excellence.)

- An inquiry and manipulative-based model for elementary science instruction (later declared a National Exemplary Program by the National Science Teachers Association) was well established (Lyon 1983).

- A manipulative-based mathematics program, based on Baratta-Lorton's *Mathematics Their Way* (1976), was well liked, but teachers were frustrated by the use of different (although similar) manipulatives in mathematics and science.

- An initial analysis of underachievement among minority students was highlighting the need for concentration on language development at an early age and for providing a rich experience base.

- Previous curriculum development efforts had yielded valuable materials in music, motor development, health, and art, but teachers were not using them widely because of problems with "fitting it all in."

- Each element represented both a part of the problem and a part of the solution; together they formed a wealth of opportunity and a staggering burden for teachers. It was the curriculum staff's task to make them "do-able."

## The Change Process

Over approximately six months, curriculum and school-based staff read, analyzed, discussed, disagreed, and

tried to achieve consensus on a workable solution. One important item of agreement emerged early—a statement of philosophy for the kindergarten program, which drew from the commonly held wisdom on early childhood education and was supported by state guidelines and research. Agreement on principles was critical in later stages of program development, when disagreements were solved more than once by referring to the statement.

The primary issue during initial planning was the degree of organization, direction, and support an integrated curriculum should provide to teachers. Kindergarten teachers are well known for their ingenuity, originality, and flexibility in creating instructional settings. Should the new curriculum consist of objectives synthesized from the various disciplines, accompanied by sample units demonstrating how to integrate instruction? Or should it consist of fully developed, integrated units that provide teachers with a year's program? After much discussion with teachers and principals, the curriculum staff adopted a model that would provide teachers with a complete set of integrated units, none of which had to be used, and all of which left room for teacher adaptation and innovation.



*Key components of language development are pre-reading and pre-writing discussions.*

Throughout eight months of development and revision, we were guided by the knowledge of successful curriculum development efforts. In particular, Hulda Grobman's (1970) excellent history of National Science Foundation-funded projects stresses pitfalls to avoid and requisite steps to take. With this guidance in mind,

- teachers were involved in all stages of development;
- specialists reviewed and critiqued one another's work;

• groups of principals were briefed and asked for suggestions;

• other administrators with a vested interest and the school district leadership were kept informed; and

• nothing was distributed that wasn't stamped *draft*. All materials and activities were tried, evaluated, and reshaped—sometimes through eight or nine revisions.

### The Final Product

The Integrated Kindergarten Curriculum consists of three strands.

• The *motor development/music strand* incorporates music activities (which develop skills in singing, playing instruments, listening, rhythm and movement, and improvisation) and physical education activities (which develop skills in locomotion, body awareness and control, directionality, creative movement, fitness, balance, and movement patterns). Teachers have flexibility in choosing and scheduling activities that suit the season and the children's needs.

• The *mathematics/science strand* combines mathematics and physical science objectives in six manipulative-based units that promote exploration, critical thinking, and concept formation—free exploration, patterns, counting and writing numbers, sorting and classifying, comparing, and number experiments. The strand also incorporates response units for identifying and challenging gifted students.



*The language arts strand uses science, social studies, health, and art activities to promote oral language development and prepare the way for reading and writing.*

- A. **Names and Addresses**—Students learn to identify their own names, addresses, and phone numbers and to recognize their names in print.
- B. **All About Me**—Students learn to identify themselves as unique persons with individual feelings, to build positive self-concepts, and to develop an acceptance and appreciation of the similarities and differences among people.
- C. **Working Together**—Students develop respect for self and others and accept responsibility for working and playing cooperatively.
- D. **Families**—Students recognize and appreciate similarities and differences among families, their needs, and how these needs are met.
- E. **Foods**—Students identify, choose, and prepare nutritious foods, use sanitary measures, and practice appropriate eating habits.
- F. **Senses**—Students learn about the senses and use them in a variety of ways to enhance their experience and promote language development.
- G. **Weather/Seasons**—Students observe and record weather and seasonal changes and their effects on living things.
- H. **Mapping**—Students begin to develop and use simple maps and develop an awareness of the globe.
- I. **Plants**—Students observe and describe the characteristics of plants, their needs, and their changes as they grow.
- J. **Animals**—Students describe the characteristics of animals and develop a caring attitude toward them.

Fig. 1. Integrated Units of the Language Arts Strand

• The *language arts strand* combines all objectives from language arts, social studies, art, environmental science, and health. It consists of two major sections—a description of the three basic strategies and a set of ten integrated units (fig. 1) that may be scheduled separately or spread throughout the year.

In what proved to be the most challenging and innovative aspect of the development project, the process-oriented objectives and techniques of the language arts curriculum were infused throughout activity-based units created to teach other subjects. The processes were drawn from current research on language development, which is summarized in *Becoming a Nation of Readers* (Commission on Reading 1985). The units draw heavily on activities commonly used by kindergarten teachers. In addition, this strand incorporates response units to serve gifted students.

The three strands are built around comprehensive teacher guides and sets of student materials, both print and nonprint. They are supplemented by student centers for art, block play, dramatic play, language arts, science, and perceptual-motor skills, which extend the basic activities and allow for individualized instruction.

### Implementation

To sustain the project throughout its implementation, we took several important measures.

• The school district organized a day-long "Great Beginnings" convention for kindergarten, first- and second-grade teachers and for special

education teachers of young children to reinforce project themes and purposes and to encourage teachers to share successful ideas and practices in workshop sessions.

• All required print and nonprint lesson materials were assembled and provided to teachers. Furniture, equipment, and techniques for managing instructional materials were also supplied. Simple as it sounds, this action received almost embarrassing praise.

• Each teacher attended four full-day inservice training sessions over the year. These relatively small-group meetings were conducted close to teachers' schools—an important consideration in a large district.

• Training sessions used teacher-presenters extensively.

• Teacher feedback was encouraged on all aspects of the program. Staff both preached and practiced that this project was a partnership.

• Ample time was allowed for teachers to interact informally at inservice training sessions.

• Developers visited classrooms regularly to solve problems, provide materials, answer questions, and stay in touch.

### In Retrospect

Much of the explanation for the curriculum project's success can be traced to the creative efforts of educators who refused to let obstacles deter them and to the research on effective program and staff development on which it is based. The project:

• *was responsive.* Staff listened to and acted on teachers' concerns.

• *was flexible.* It left ample room for teacher initiative.

• *was conceptually sound.* It was based on research and experience.

• *was thorough.* It went beyond exhortation and gave teachers all that they needed to succeed.

• *was practical.* It was created, tested, and revised by teachers, principals, and curriculum staff who had years of experience with kindergarten-aged children.

• *provided appropriate staff development.* Time and pacing were adequate to allow teachers to learn, assimilate, discuss, and practice with all components.

• *provided ongoing support.* Newsletters, staff visits, and inservice training sessions maintained a clear focus on project goals.

As one teacher participating in the project said, "It's wonderful to have organization after years of working things out for ourselves." Because the instructional elements that make up the program have a history of effectiveness in promoting student achievement, reaction and analysis by teachers is a key component of the assessment. Test scores also will be monitored. Scores for minority students, in particular, will determine whether an experience-based, language-oriented curriculum provides a partial answer to the problem of underachievement. □

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