In June 1990, the state of Kentucky passed its innovative Education Reform Act, which totally restructured the finance, governance, and curriculum of its public schools. One of the major provisions of the act was the mandate for Kentucky’s primary schools to change from the traditional placement of children of the same age in kindergarten, first, second, and third grades to the placement of youngsters in multi-age, multi-ability classrooms. The resulting primary program recognizes that children grow and develop as a "whole," not one dimension at a time or at the same rate in each dimension. The instructional practices of the primary program address social, emotional, physical, aesthetic, and cognitive needs. The program flows naturally from preschool programs and exhibits developmentally appropriate practices. The philosophy of the primary program stresses a classroom climate that is non-competitive and encourages children to learn from one another as well as from the teachers. The program nurtures the continuing growth of children’s knowledge and understanding of themselves and their world in a safe, caring, stimulating environment where the child grows and learning flourishes. This book describes Kentucky’s primary program, focusing on the seven critical attributes of the program. Those attributes are: (1) developmentally appropriate educational practices; (2) multi-age and multi-ability classrooms; (3) continuous progress; (4) authentic assessment; (5) qualitative reporting methods; (6) professional teamwork; and (7) positive parent involvement. References are included with each chapter. (TJO)
PRIMARY THOUGHTS:

IMPLEMENTING KENTUCKY'S PRIMARY PROGRAM

KENTUCKY DEPARTMENT OF EDUCATION
THOMAS C. BOYSEN, COMMISSIONER
PRIMARY THOUGHTS:

Implementing
Kentucky's Primary Program

Connie A. Bridge
Beverly A. Reitsma
Peter N. Winograd

Illustrated by:
Karen S. Brittain

Kentucky Department of Education
ACKNOWLEDGEMENTS

The idea for this book was conceived during a conversation with Commissioner Thomas Boysen who was concerned about providing support for Kentucky teachers as they implemented the primary program. The leadership of Lois Adams-Rogers, Deputy Commissioner of Learning Support Services, has been a vital influence in determining the quality and direction of the primary program. Associate Commissioner for Learning Programs Development, Nawanna Fairchild, provided many helpful suggestions and emotional support along the way. Her knowledge of the primary program and her firm, but gentle, insistence on “getting it right” kept us on track.

Several individuals have contributed to the writing of this book. First and foremost, assistant director of the Institute on Education Reform at the University of Kentucky, Beverly Reitsma has had primary responsibility for writing several of the chapters: “Organizing the School,” “The Physical Environment,” “The Social/Emotional Environment,” and “Family Involvement.” Peter Winograd, chair of the Department of Curriculum and Instruction at the University of Kentucky, wrote the chapter entitled “Monitoring and Reporting Student Progress.”

Other professors in the Department of Curriculum and Instruction made substantial contributions to the chapter “Developmentally Appropriate Practices.” Ron Atwood shared his expertise in science, Alan Zollman in mathematics, and Linda Levstik in social studies. Also the science units referred to in “Integrating the Curriculum” were developed by Ron Atwood and the talented teachers in his Elementary Science Theme Study Institute. I wrote the chapters, “What is the Primary School in Kentucky?” “Integrating the Curriculum,” “Developmentally Appropriate Practices,” and “Making the Change.”

Paige Carney, Vicki Willis, and Tiffany Markulike, graduate students at the University of Kentucky visited classrooms in every region of the Commonwealth. Their write-ups of their observations and interviews with teachers and principals were invaluable in providing examples of what Kentucky teachers are actually doing as they implement the primary program.

Karen Brittain, talented artist and primary teacher at Squires Elementary in Lexington, Kentucky, drew the delightful illustrations for the book. Her ability to enhance both the appearance and the meaning of the text was remarkable.

Charmaine Powell, administrative assistant in the Institute on Education Reform, worked long hours to lay out the text and illustrations in an eye-appealing way that communicated the meaning of the authors. Without her skills at the computer and her patience, the book would never have become a reality. Susan Gooden contributed her sharp eyes and knowledge of writing conventions in the final editing of this book.
We used many of the ideas and materials from the Primary School Integrated Staff Development Series that the Institute on Education Reform at the University of Kentucky developed for the Kentucky Department of Education in 1992. Authors of that series included Connie Bridge, Jacqui Farmer, Cynthia Frey, Kent Mann, Beverly Reitsma, Mary Shake, Deborah Bott Slaton, Jacqueline Vance, Char Williams, and Richard Williams.

Most of all, we need to thank the teachers and principals in the schools throughout the state who allowed us to visit in their classrooms and who spent time discussing their challenges, their frustrations, and their remarkable successes with us. A list of these teachers and schools is included.

We hope you find the book useful and informative as you continue your pioneering efforts to implement the primary program statewide.

Connie Bridge
Director, Institute on Education Reform
College of Education
University of Kentucky
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John Mann, Principal
James A. Caywood
Ft. Mitchell, Kentucky

Kent Mann, Asst. Superintendent
Danville Independent Schools
Danville, Kentucky

Renee McIntosh
Northern Elementary
Lexington, Kentucky

Jennifer Mockbee
Bellevue Elementary
Richmond, Kentucky

Bonnie Myers
Hannah McClure Elementary
Winchester, Kentucky

Susie Nally
Woodford County Middle School
Versailles, Kentucky

Dalten Oak
Goshen Elementary
Goshen, Kentucky

Carol Perkins
Cardinal Valley Elementary
Lexington, Kentucky

Judith Ramey, Principal
Clearfield Elementary
Clearfield, Kentucky

Elizabeth Rightmyer, Principal
The Chance School
Louisville, Kentucky

Wendy Roark
Southside Elementary
Shelbyville, Kentucky

Erin Roberson
Cane Ridge Elementary
Paris, Kentucky

Kathleen Ronay
Goshen Elementary
Goshen, Kentucky

Karen Schneider
Yates Elementary
Lexington, Kentucky

Kelly Sherkat
Warner Elementary
Nicholasville, Kentucky

Genevieve Slone
W. D. Osborne Elementary
Beavinsville, Kentucky

Carol Smith
Hearn Elementary
Frankfort, Kentucky

Paula Steele
Tamarack Elementary
Owensboro, Kentucky

Gretchyn Turpen
Southside Elementary
Shelbyville, Kentucky

Jacqueline Vance
Model Laboratory School
Richmond, Kentucky
Susan Watts  
Southside Elementary  
Shelbyville, Kentucky

Beverly Wells  
Squires Elementary  
Lexington, Kentucky

Burma Wheeler  
Mannsville Elementary  
Mannsville, Kentucky

Richard Williams, Principal  
Warner Elementary  
Nicholasville, Kentucky

Jennifer Wilson  
Lansdowne Elementary  
Lexington, Kentucky

Susan Woods  
Colony Elementary  
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Primary Teachers  
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Primary Teachers  
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WHAT IS THE PRIMARY SCHOOL IN KENTUCKY?

A CLASSROOM VISIT

Step inside Pam Brown's classroom at Russell Cave Elementary School. You may be surprised at what you see and perhaps even more surprised at what you don't see. There are no desks in this classroom. They've been replaced by round tables and chairs where children ages six, seven and eight meet to work together in small groups or individually on a project. There's a rug on the floor where children gather for large group activities. There's a math center where children work independently to solve math problems using manipulative materials and a science center where they discover scientific principles through exploratory activities. Two children are giving each other spelling words, while other children are writing in their journals. A group of children are at the listening center. Other children are reading independently in books of their choice which they will come together later to discuss in reading response groups.
Books are everywhere - books by professional authors and books in process and books “to brag about” for they have been written by the children themselves. In fact, the children are in the process of writing another book, a take-off on the favorite If You Give a Mouse a Cookie. After listening to Ms. Brown’s student teacher read the book aloud and discussing the author, illustrator, title, cover, copyright, and pattern of the book, they are helping one another compose and illustrate their own version of the predictable pattern book.

Students are free to move about the room as they work. The noise level is low and businesslike. There’s very little obvious teacher direction, for these children have learned to self select activities and move from one center or activity to another when they finish a task. Class rules are posted as reminders of agreed upon behaviors that make such freedom possible. Whenever Ms. Brown wants the children to gather on the rug, she plays some inviting music on the tape recorder and the children know that means to “stop what you’re doing and come to the front rug.” They put their materials away, pick up their clipboards, and gather quietly on the rug.

Two years ago, the scene in this classroom would have been very different. There would have been rows of desks, few learning centers, and children working alone on workbooks and worksheets while their classmates were involved in ability grouped basal reading instruction or highly structured, teacher directed lessons. What made this change possible?
KENTUCKY EDUCATION REFORM ACT OF 1990

In June, 1990, Kentucky revolutionized elementary and secondary education with the passage of the Kentucky Education Reform Act, which totally restructured the finance, governance, and curriculum of the public schools in the commonwealth. One of the major provisions of the act was the mandate for Kentucky's primary schools to change from the traditional placement of children of the same age in kindergarten, first, second, and third grades to the placement of youngsters of more than one age in the same multi-age, multi-ability classroom.

In The Wonder Years, the Kentucky Department of Education (KDE) set forth its position on the primary school: “The primary school is that part of the elementary school program in which children are enrolled from the time they begin school until they are ready to enter the fourth grade (KRS 158.030(1),(2). An appropriate primary program for all children recognizes that children grow and develop as a “whole,” not one dimension at a time or at the same rate in each dimension. Therefore, instructional practices should address social, emotional, physical, aesthetic, as well as cognitive needs. The primary program flows naturally from preschool programs and exhibits developmentally appropriate educational practices. These practices allow children to experience success while progressing according to unique learning needs and also enable them to move toward attainment of the educational goals and capacities of the Kentucky Education Reform Act in an environment that fosters a love of learning.”

The philosophy of the primary program stresses a classroom climate that is non-competitive and encourages children to learn from one another as well as from teachers. Diversity of skills and knowledge is accepted and accommodated by grouping and regrouping children for an effective
The program nurtures the continuing growth of children’s knowledge and understanding of themselves and their world... in a safe, caring, stimulating environment where the child grows and learning flourishes.

Children can experience success while progressing according to their unique learning needs. Continuous learning is enhanced through a coordinated and integrated curriculum incorporating a variety of instructional strategies and resources including play (The Wonder Years).

PRIMARY SCHOOL PROGRAM ATTRIBUTES

To aid teachers in the implementation of the Primary Program, early childhood specialists within the Kentucky Department of Education (KDE) in consultation with other professional educators throughout the commonwealth worked together to identify the seven critical attributes of an effective primary school program.

1. Developmentally appropriate educational practices
2. Multi-age and multi-ability classrooms
3. Continuous progress
4. Authentic assessment
5. Qualitative reporting methods
6. Professional teamwork
7. Positive parent involvement

In the months since the passage of the Kentucky Education Reform Act, primary teachers and principals, early childhood specialists in KDE, and teacher educators in the higher education institutions have worked to define these attributes and to identify some of the best educational practices to enable the full implementation of these attributes (See State Regulations and Recommended Best Practices for Kentucky’s
The seven critical attributes have been defined as follows:

**Developmentally Appropriate Practices.** Developmentally appropriate practices means providing curriculum and instruction that addresses the physical, social, intellectual, emotional, and aesthetic/artistic needs of young learners and permits them to progress through an integrated curriculum at their own rate and pace.

**Multi-Age and Multi-Ability Classrooms.** Multi-age and multi-ability classrooms means the flexible grouping and regrouping of children of different ages, sex, and abilities who may be assigned to the same teacher(s) for more than one year.

**Continuous Progress.** Continuous progress means that students will progress through the primary school program at their own rate without comparison to the rates of others or consideration of the number of years in school. Retention and promotion within the primary school program are not compatible with continuous progress.

**Authentic Assessment.** Authentic assessment means assessment that occurs continually in the context of the learning environment and reflects actual learning experiences that can be documented through observation, anecdotal records, journals, logs, work samples, conferences, and other methods.

**Qualitative Reporting.** Qualitative reporting means that children's progress is communicated to families through various home-school methods of communication which focus on the growth and development of the whole child.

**Professional Teamwork.** Professional teamwork refers to all professional staff including primary teachers, administrators, special education teachers, teacher assistants/aides, itinerant teachers, and support personnel who communicate and plan on a regular basis to meet the needs of groups as well as individual children.
No longer do we believe that learning occurs on a bell shaped curve that predetermines the failure of a certain number of children.

Positive Parent Involvement. Parent involvement means relationships between school and home, individuals, or groups that enhance communication, promote understanding, and increase opportunities for children to experience success.

In the KDE publication, State Regulations and Recommended Best Practices for Kentucky Schools, you will find the recommended best practices to aid in the implementation of these seven critical attributes in the primary school program.

BELIEFS ABOUT CHILDREN

Inherent within the primary school philosophy are certain beliefs about children and how they learn. The adoption of these beliefs requires the rejection of other beliefs that have dominated education in the past. No longer are children viewed as empty vessels into which the teacher pours his or her own store of knowledge. No longer are children viewed as passive recipients of the teacher's knowledge. No longer do we believe that learning occurs on a bell shaped curve that predetermines the failure of a certain number of children.

On the other hand, primary teachers profess the following beliefs about children:

ALL CHILDREN CAN LEARN

All children can learn and they can learn at high levels. This is the underlying assumption of the Kentucky Education Reform Act. In the long run, the adoption of this belief by all teachers and administrators will improve students' learning more than any other single element of the primary school reform. Researchers report that teachers and administrators in effective schools hold higher expectations for student achievement than do teachers and administrators in less effective schools. When teachers believe students can learn, they do.
KERA mandates high expectations for the performance of ALL students; success is expected for all. Still, however, some teachers protest that their students can’t reach the Learner Outcomes identified by KERA. They cite poverty, racial or ethnic background, or low parental expectations as reasons for the children’s inability to learn. It is true that teachers must overcome more obstacles in helping these children learn, yet there are numerous schools throughout this country in which students from low income homes are successful. The success of these schools demonstrates that all students, even students who are deemed “at risk,” can learn if we believe that they can and if we share this belief with them.

**CHILDREN SEARCH ACTIVELY FOR MEANING IN THEIR WORLD**

Children strive to make sense of the world around them. From infancy children explore the world, tasting, touching, seeing, smelling, and listening as they gain firsthand sensory information about how the world works. But they are not just passive recipients of this sensory information. They also act on the world. They cry, shout, babble, laugh, kick, and throw things, as they act on the world. They ask questions, hundreds of questions, as they attempt to interpret all of the information they are receiving and find their place in the world, to understand what makes it work, and how to control it.

Are we going to hang all of these signs around the school?
Children aged five to eight continue to search actively for meaning in their worlds. When given the opportunity to solve real-life problems, children continue their quest for meaning. As preschoolers, they chose the activities that interested them and their intrinsic interest sustained their attention to these activities. So, too, will intrinsic interest sustain involvement in classroom activities when children are working to answer a meaningful, authentic question that evolves from their own interests.

Schools have failed to trust children’s innate need to understand their world. We have given children rewards of tokens, points, grades, privileges, and even food for the completion of meaningless, irrelevant tasks in a largely unsuccessful attempt to substitute extrinsic motivation for the natural intrinsic motivation that keeps children engrossed in meaningful, self-selected activities.

The power of intrinsic motivation was illustrated by Bev Dean at Picadome Elementary in the January 5, 1993, Wall Street Journal. Ms. Dean reported that students in her class recently voted to skip recess so that they could finish a writing lesson. Furthermore, she said, “Some kids take books to lunch. I’ve never had that before.” When children are reading real books and writing for authentic reasons, they don’t need extrinsic rewards; their genuine interest in the task sustains their effort.

CHILDREN CONSTRUCT THEIR OWN MEANING

Children are meaning-makers. Like all human beings, they are constantly attempting to understand and control the world about them. When they encounter a problem or an unfamiliar situation, they use the information they already know to generate hypotheses about ways to solve the problem or react in the situation.
We sometimes forget how much information and knowledge children bring with them to school; they are not blank slates. Teaching involves building on children’s prior knowledge of the world about them. Researchers have shown that the more we already know about a given topic, the more we can learn from reading or studying about it. Thus, the key to facilitating learning at school is to help children connect the new to the known, to build on what they already know and to help them see how the new information relates to the known.

**CONSTRUCTIVIST VIEW OF LEARNING**

\[
\text{LEARNING} = \text{NEW} + \text{KNOWN}
\]

PRIOR KNOWLEDGE OF LANGUAGE AND THE WORLD

NEW INFORMATION FROM FIRST HAND OR VICARIOUS EXPERIENCE

Because every child brings a different background of knowledge and experience to the classroom, it is obvious that each child will take different information from the information available in the classroom. Thus, each child must regulate his or her own learning, not only what is learned but the rate at which it is learned.

**CHILDREN LEARN PRINTED LANGUAGE IN THE SAME WAY THEY LEARN ORAL LANGUAGE**

One of the miracles of human learning is that nearly all children acquire oral language without any formal instruction. Children learn to speak by listening to many conversations in
meaningful contextualized situations in which the significant others in their lives are communicating relevant information to one another and to them. By extensive exposure to meaningful exchanges of language, children induce for themselves the rules that govern language use.

For example, no one directly teaches the preschooler the past tense rule, yet young children demonstrate their understanding of the rule when they overgeneralize it to irregular verbs as when they report that "the dog runned across the street." It is unlikely that they have heard anyone else use this incorrect form, yet because they understand that to discuss actions that have already occurred they must add the "ed" to the base verb, they apply the rule to an irregular verb that violates the rule. They cannot articulate the rule explicitly because their vast knowledge of language is tacit or implicit. Like most adult language learners, they can apply language rules without being able to explain them in an explicit way.

The human brain has the capacity to sort through amazing amounts of incoming sensory data and to formulate rules to guide the organization of that data. Have you ever thought about the way in which children learn to tell dogs from cats? Have you ever thought about the rules you would teach a person who did not know how to tell the difference between dogs and cats? Can you formulate a rule related to size, presence of whiskers, length of hair, length of tail? You will soon find that there are always exceptions. Dogs are usually bigger that cats, but a twenty-pound tabby is larger than a five pound chihuahua. Cats usually have whiskers; dogs usually don't; but there are exceptions. Neither you as an adult nor the child can explain how to tell one from the other but both you and they can do so with a high accuracy rate.

In the same way that children learn to tell dogs from cats, they induce the rules for understanding and producing oral language. They can also induce the rules for understanding and producing printed language, if they are immersed in large
amounts of print in meaningful contextualized situations in which the actions of the significant others around them support their efforts to understand and produce written language.

Children who grow up in highly literate homes come to school knowing a great deal about print and how it works because they have observed their parents and friends using various types of print to accomplish daily tasks. Research has shown that children who learn to read on their own grow up in homes in which their parents read aloud to them and answer their questions about print. These fortunate children have learned to read by what Robert and Marlene McCracken call the "lap technique." That is, loving parent, grandparent, or other caregiver, have held the children on their laps and read aloud their favorite storybooks - not once but many times.

In Once Upon a Time, successful children's author Trina Schart Hyman describes her own experience of learning to read through the lap technique as follows: "My mother is a beautiful woman with red hair and the piercing blue gaze of a hawk. She never seemed afraid of anyone or anything. It was she who gave me the courage to draw and a love of books. She read to me from the time I was a baby, and once, when I was three or four and she was reading my favorite story, the words on the page, her spoken words, and the scenes in my head fell together in a blinding flash. I could read! The story was 'Little Red Riding Hood' and it was so much a part of me that I actually became Little Red Riding Hood."

Needless to say, Trina Schart Hyman's mother read the story of "Little Red Riding Hood" aloud to her many
Teachers have the freedom to design a curriculum that helps children acquire the 75 Learner Outcomes
times before she was able to connect the printed words on the page with her mother's spoken words. Unfortunately, many children arrive at the doors of the school without the numerous experiences with print that Trina Schart Hyman and other children from highly literate homes have had. Thus, it becomes the job of the school to immerse the child in meaningful, functional print so that they, too, can figure out the ways in which print maps on to speech. We'll talk a lot more about ways to do this in Chapter 6.

BELIEFS ABOUT TEACHERS

In primary classrooms, the roles of teachers are very different from their roles in traditional classrooms. Teachers in primary classrooms demonstrate their beliefs about children in the manner in which they teach. They trust that children will be intrinsically motivated to learn when the learning activities are meaningful and when they see how learning will help them make sense of their worlds. They understand that all children must construct their own knowledge of the world fitting the new information into their existing schema. Most of all, they believe that all children can learn at high levels - children from all incomes, children from all racial and ethnic groups - and most importantly they communicate this belief to the children themselves.

TEACHERS ARE IN CHARGE OF THE CURRICULUM

Teachers in primary classrooms no longer view themselves as the dispensers of a predetermined set of information. In traditional classrooms, teachers had a textbook in which a body of information or sequence of skills was taught in a predetermined order; the scope and sequence was provided by the teacher's manual. The teacher merely had to determine the pace at which the children were to proceed through the materials. At times, publishers insulted teachers by touting their materials as "teacher-proof" thus denigrating the primary
role of the teacher as a professional capable of deciding what is best for the students in his or her classroom.

In Kentucky's new primary classrooms, the teachers are in control of the curriculum. They know that the children are to work toward achieving the 75 Learner Outcomes, but they have the freedom to design a curriculum that helps children acquire these outcomes. They may choose to use the textbook as a guide; they may still want the children to acquire a certain body of knowledge; but they may also decide that some of the information in the textbook is not important or that some of the skills are irrelevant to the attainment of the 75 Learner Outcomes. They supplement the single text and enrich the learning environment. They are in control.

With control comes responsibility, responsibility that is sometimes a little frightening and often overwhelming in the beginning. Most of Kentucky's teachers are not throwing out their textbooks completely; in fact, most are continuing to use them as guides while picking and choosing from the texts the information and activities that will promote students' attainment of the Learner Outcomes. Teachers are using the textbooks as they were always meant to be used - as one source of information that needs to be supplemented and augmented.

Teachers also have support from the Kentucky Department of Education in the form of the Curriculum Framework in which the 75 Learner Outcomes are explained and learning activities and instructional resources for attaining the outcomes are suggested.

Most importantly, experienced teachers have their own "built-in scope and sequence charts." They know from years of teaching what types of knowledge and skills are important for primary children to learn. They also know which of the myriad of skills that they were formerly expected to teach are unnecessary. They can trust their own experience to serve as a guide as they design a curriculum that focuses on the important knowledge and skills needed to attain the 75 Learner Outcomes.
Teachers in primary classrooms design learning experiences in which children may experience and express their learning in multiple ways.

Outcomes while omitting those skills that are irrelevant to the attainment of the Learner Outcomes.

Teachers Understand That Children Learn in Different Ways

Teachers in primary classrooms understand that every child’s path to the attainment of the outcomes will be different. Since all children bring different backgrounds of knowledge and experience to the act of learning, each child takes different things from the learning activities provided in the classroom.

Not only do children differ in the nature of their background knowledge, but they also differ in their preferred ways of learning. Howard Gardner’s work on multiple intelligences reminds us that some individuals learn best through a linguistic approach; whereas, others learn through a tactile kinesthetic or logical mathematical approach. Teachers in primary classrooms design learning experiences in which children may experience and express their learning in multiple ways - reading and writing, listening and speaking, moving and dramatizing, singing and dancing, sculpting and constructing, painting and drawing. Children are no longer restricted to a single mode of expression - using only paper and pencil in conventional ways.

Teachers Value Approximations and Risk Taking

Schools have been notorious for valuing one right answer. Students have been conditioned to guess what answer the teacher had in mind. They have been penalized when their answers varied from that of the textbook or test. Teachers have been reluctant to reward children for using a logical process if they failed to come up with the “right” answer given in the text or test. Teachers have failed to probe and find out how children were thinking about a problem or situation when the answer was not the one they had expected. A follow-up question might
reveal that based upon the child's experiences, a so-called wrong answer might make a great deal of sense.

When Piaget was administering intelligence tests for Binet, he discovered that it was the wrong answers that provided a great deal of insight into children's thinking; whereas a right answer gave no clues about the manner in which the child arrived at the answer. This discovery led him to spend his life's work studying children's thinking.

Like Piaget, teachers in primary classrooms value children's approximations and attempts and use them to better understand the child's level of intellectual development. For example, by studying children's invented spellings, a teacher can discover the generalizations the child is using regarding the way that print maps on to speech. For example, a child who spells "love" as "luv" has learned that the medial vowel sound heard in "love" is frequently represented by a short u. Currently, he or she is overgeneralizing that rule to a phonetically irregular word, but the invented spelling attests to the remarkable ability of the child to organize large amounts of auditory and visual information and to induce the rules about the way that written language represents spoken language. Research indicates that there is no danger that the child's spelling will be arrested at this level if the teacher fails to correct the misspelling. With more reading experience in which the child sees the standard spelling of "love," he or she will discover that "love" is an exception to the rule about the short u sound and will begin to use the standard spelling.

Children's oral reading miscues can also provide valuable insights into the strategies they are using to figure out unfamiliar words. If a child's miscues are meaningful substitutions that do not significantly alter the meaning of the passage, we know that the child knows that reading should make sense. On the other hand, a child who substitutes a graphically similar word (e.g. horse for house) that does not make sense in a sentence (e.g. I went into the house to get a
cookie) is relying too heavily on letter sound information and neglecting meaningful context clues.

By examining children's errors in mathematics and probing for the reasons for these errors, teachers can learn a great deal about possible misconceptions the child possesses and provide instruction that helps clear up these misconceptions.

**TEACHERS PROVIDE CHOICE WITHIN STRUCTURE**

Teachers in primary classrooms set up the learning environment in such a way that children may select from a variety of learning activities any of which will lead toward the attainment of the Learner Outcomes. Since children possess varying backgrounds and interests and learn at different rates using different learning styles, it is unreasonable to expect all children to proceed through the same set of materials doing exactly the same activities.

Children in primary classrooms select their own questions to answer and their own projects to pursue. But the skillful primary teacher structures the children's choices by the activities and materials provided in the classroom environment and by capitalizing on events and situations that are going on in the world outside the classroom.

For example, during the presidential inaugural activities in January, 1993, Beverly Wells at Squires Elementary had the children involved in a study of Washington, D.C. At the Reading center, a quiet group of children could be seen reading different self-selected books related to Washington, D.C. For
example, one child was reading the book *The Wall*. When she finished reading, she would write why she believes that the Vietnam Memorial wall is so meaningful to so many people. The other children would respond to their books in ways that enable them to evaluate the content and relate it to their own lives.

At the *Art and Building* center, a group of children could be seen busily drawing blueprints of the nation’s capital. They collaboratively selected a favorite map of the city and made the blueprints on a large piece of bulletin board paper. At the *Music* center, one child was writing his own Declaration of Independence to the music of a song that he had chosen. Another child was browsing through a music book, locating different patriotic songs. Later she would write about the meaning of the lyrics in each of the songs she had selected.

At the *Working Together* center, three children were cooperatively discussing a recent newspaper article about Washington, D.C. and choosing five newly learned facts about the city to write in their own words. At the *Personal Work* center, two children had chosen to practice their handwriting by recopying the Bill of Rights. Two others chose to select a site of interest in Washington, D.C. and design a brochure about it. First they had to decide whether to write the National Park Service for information or use local sources such as a tour book or other library resources.

**Teachers Integrate the Curriculum Through Units and Projects**

When teachers organize their curriculum around broad-based themes and projects, students are allowed to self select the aspects of the theme on which they will focus. Because the children are studying different aspects of the theme, they will be using different resource materials and reporting their study in different ways. Children involved in a study of household pets, might choose to survey their classmates to see how many
children have pets and what types of pets they have. This information might be graphed and presented in a large mural in the classroom.

Another child might become engrossed in unusual pets, such as boa constrictors. That child might read factual materials about boas and might write a report of the findings or an imaginative story about a child with a pet boa in which the facts would be woven into the story. Another child might discover Shel Silverstein's poem “I'm Being Swallowed by a Boa Constrictor” and get a group of classmates together to act out the poem as they recite it chorally for the class.

In the example above, it is obvious how theme studies promote integration of the curriculum. Children are using mathematics and interview techniques to construct the graph. They are reading and writing in various genre (stories, poetry and informational materials) as they study snakes and do choral reading. They are using group membership skills when they work with peers to construct the graph or plan the choral reading presentation. They are using art and drama when they make the materials for the reenactment of the poem. Many content areas are used in meaningful contexts as the children pursue their individual interests.

Another advantage of theme studies is that it allows for children of different age and ability levels to pursue the topic in materials of varying difficulty levels and to express what they have learned in a variety of modes and media.

TEACHERS AND CHILDREN CREATE THE LEARNING ENVIRONMENT

The task for the teacher in a primary classroom is to design both the physical and social learning environment in a way that supports children's learning. The
physical environment must be arranged so that the materials and space are available for the children to pursue their interests. Room for both noisy and quiet activities must be provided and areas for individual, small, and large group activities need to be designated.

The teacher works with the children to organize the social environment so that they themselves figure out how to interact with their classmates in ways that permit an individual child to read and write quietly without interruption or distraction while at the same time a small group of children may be working cooperatively on a project or a pair of youngsters may be jointly authoring and illustrating a book.

Children learn valuable group membership skills as they negotiate rules for social interactions in the classroom. Because they participate in making the rules, they are more apt to see the need to follow the rules and there is little need for the teacher to serve as disciplinarian. Thus, the children achieve a major goal of education in a democracy, that of self-discipline.

**TEACHERS ARE LIFELONG LEARNERS**

Teachers, like their students, must become lifelong learners. They must constantly be constructing new meanings - new meanings about the Learner Outcomes they want children to achieve, new meanings about the content that they teach, new meanings about the ways in which children learn, and new meanings about the interests and needs of the children in their classrooms.

Teachers find when they employ a unit or project approach that they themselves are learning with the children. When a child's interests move in a direction that the teacher has not traveled before, the teacher also is covering new ground, learning new facts, both broadening and deepening understanding of content. As children become experts in a given area and share that knowledge with the class, the teacher learns...
from the children along with the classmates. When the artistically or musically talented child expresses his or her learning in a new way, the teacher learns more about that mode of expression. When children from different cultures share customs, beliefs, and perspectives, the teacher’s appreciation for and understanding of various cultures is enhanced.

The advantage for teachers in the primary classroom is that every day is new and stimulating because they are learning new things each day. The advantage for students is that they have the opportunity to interact daily with an adult role model of the lifelong learner. They realize that even adults continue to learn new things throughout their lives and that learning never ends.

SUMMARY

The vision of Kentucky’s primary program is an exciting one. It is a vision based on beliefs about empowerment - empowerment of children to take control of their own learning and empowerment of teachers to design learning environments that support children’s efforts to do so. But realizing the vision will take time, courage, and a great deal of hard work. Are you ready? Let’s begin!
REFERENCES


State regulations and recommended best practices for Kentucky's primary program. (1993) Frankfort, KY: Kentucky Department of Education.


At approximately 11:40 a young boy skips excitedly but quietly into his classroom. He quickly sluffs off his backpack, stuffs it into his cubbie, and rushes to greet his teacher who is sitting with a small group of students. As the boy joins the group, he is momentarily distracted from his original purpose and peers intently at a small, grey rabbit resting in one of the student’s hands. Referring often to an open book, the students and teacher continue to discuss the proper food for a baby rabbit. One of the boys suggests carrots...after all, that’s what Bugs Bunny eats. Looking at one of the pictures in the reference book, a girl proposes lettuce instead.

At this point, the young boy remembers his original mission and shows the teacher his new treasure, Beatrix’s Potter’s book, *The Story of Peter Rabbit*. Laughing, the teacher congratulates the boy on his timing and suggests that maybe “Peter” can recommend something good to eat for their new rabbit. As several of the students return the rabbit to its cage, the new arrival joins an older boy who is seated in a corner atop a pile of comfortable pillows reading a book. Waving his new book in the air, the young boy settles himself down beside the older boy, and they begin to read. No formal greeting or invitation to join one another is necessary because these two boys are reading “buddies.” Each day when the younger boy arrives, he knows that his “buddy” will be in the classroom ready to share a story.

This scene is representative of the types of activities that are happening in primary classrooms. The eager young man who arrives at school at 11:40 a.m. is a first year primary student. Like the traditional kindergarten student, he attends school for only half of the day. Unlike the traditional kindergarten student, he does not attend a separate half day program but is a member of a multi-age primary program which, in this case, includes both full day and half day students.
Although this scene represents only one example of how children may be grouped within the primary school, it does show some of the advantages of multi-age grouping. The goal of this chapter is to describe a variety of grouping options that are currently being used in Kentucky primary classrooms. This chapter also addresses the somewhat controversial issues of inclusion of five-year-olds and special needs children within the primary school and the assurance that gifted students are given opportunities to realize their full potential. A variety of options and examples of existing and proposed programs are given.

A second goal of this chapter is to discuss how changes in student grouping patterns have affected teachers. With the institution of flexible grouping, the creation of “families” of classrooms, and changes in instructional strategies, cooperation among teachers is increasing. This chapter addresses the issue of common planning time for teachers and the relationship between common planning time and teacher cooperation.

MULTI-AGE, MULTI-ABILITY PRIMARY CLASSROOMS

KERA regulations state that primary students will be grouped in multi-age and multi-ability classrooms. Unfortunately, this statement has been falsely interpreted by some individuals to mean that all primary classrooms must contain five-, six-, seven-, and eight-year old students. This assumption is not correct. Although primary classrooms must contain a minimum of two levels, KERA does not mandate a single grouping formula.

What KERA regulations do stress is the importance of flexibility. One characteristic of all multi-age and multi-ability classrooms is flexible grouping and regrouping of children of different ages, genders, and abilities for the purpose of enhanced learning.

Why does KERA place such emphasis upon the use of multi-age, multi-ability grouping patterns with children? To answer this question, let’s examine some of the benefits of this type of arrangement.
In her book, *The Case for Mixed-Age Grouping in Early Education*, Lilian Katz (1990), expert in early childhood education, describes the following advantages of heterogeneous grouping:

- Mixed-age grouping resembles family and neighborhood groupings, which throughout human history have informally provided much of children's socialization and education. Many young children now spend relatively little time in these types of settings and consequently are deprived of the kind of learning made possible by contact with children of other ages.

- Research indicates that social development can be enhanced by experiences available in mixed-age grouping. Leadership and positive social interactions have been observed to increase.

- Current concepts of cognitive development—the "zone of proximal development" and "cognitive conflict"—imply that children whose knowledge or abilities are similar but not identical stimulate each others' thinking and cognitive growth.

- Research on peer tutoring and cooperative learning indicates that interaction between less able and more able children benefits all individuals, including gifted children, both academically and socially.

- Mixed-age grouping relaxes the rigid, lock-step curriculum with its age-graded expectations, which are inappropriate for a large proportion of children.

A primary advantage of heterogeneous grouping patterns is the gift of time. Students move at their own rate throughout the four years of their primary experience without the stigma of failure or the pressure of success. A second advantage of this system is peer interaction; students are given many opportunities to assume the role of both leader and follower, teacher and learner.

These factors are further buttressed by research related to achievement in such groups as boys, minorities, and underachievers. In all three cases, academic achievement was higher and attitudes
toward school more positive when these children were placed in a multi-age setting. Pavan's review of 64 research studies published between January 1968 and December 1990 confirms the positive link between placement in multi-age, multi-ability classrooms and achievement. In a comparison of graded and nongraded classrooms, 91% of the studies showed that students in nongraded rooms performed better than or equally to students in graded groups. Taken as a whole, these figures provide a powerful incentive for the establishment of multi-age, multi-ability classrooms.

GROUPING OPTIONS

Given the understanding that heterogeneous grouping patterns have a positive influence on children's growth, your next question may be, "What grouping pattern is the best pattern for my primary school?" The answer...**There is no single grouping pattern that is best.** Decisions regarding grouping of children should be based on the needs of both the students and teachers in the school. The following are examples of grouping patterns that are currently being used in primary schools throughout the state.

- **Dual year plan** - This plan groups two levels of primary students. Examples of possible dual year groups may include class assignments consisting of: five- and six-year-old students, six- and seven-year-old students, or seven- and eight-year-old students.

  An advantage of this grouping pattern is that it provides for diversity among students but differences are not as widespread as in other grouping plans. **This plan, however, should not be equated with earlier split grade arrangements.** Children should be grouped flexibly according to student needs, requirements of the task, and individual interests.

- **Three year plan with partial first year inclusion** - This plan groups six-, seven-, and eight-year-old students into a primary classroom. Although at the beginning of the year five-year-old students spend most
of the day together, their teacher plans with the primary classroom teachers, and they are included in primary activities on a regular (and spontaneous) basis.

Some schools like this pattern because of its flexibility. During the first few weeks of the school year, five-year-old children may spend the major part of the day as a group familiarizing themselves with classroom and school routines. As the five-year-old students gain confidence, they are gradually incorporated into the activities of the older children. A strength of this system is that it helps children make a smooth transition into the primary program.

• Four year plan - A few schools are blending five-, six-, seven-, and eight-year-old students into one primary classroom.

This system often occurs in schools where teachers have been working in the primary setting for several years and understand the complexities of meeting a very wide range of needs. An advantage of this plan is that children move through their primary years with one team of teachers who know and understand their needs.

The previous examples represent three basic grouping patterns. Some schools are using other combinations of these basic plans depending upon the needs of their student populations. For example, one year a school may have an abundance of six-year old students. In response to this situation, staff may choose to use both two and three year grouping plans. One classroom may contain five- and six-year-old students; while a second classroom many contain five-, six-, and seven-year-old students. Still another classroom may contain six-, seven-, and eight-year-old students. Regardless of the type of plan you choose, keep in mind that the goal of any grouping structure is flexibility and diversity. We must be constantly on guard that grouping patterns do not become a subtle form of tracking or labeling young children.

A second factor that may influence the choice of grouping patterns is teacher preference. Differing teaching styles among staff may lend themselves to different grouping patterns. Especially in the
A principal advantage of the family system is that it provides both stability and diversity.

Initial stages of implementation when teachers are experimenting with and experiencing many new ideas, it is vital that teachers are also given choices.

A third factor related to the grouping of children is the development of “families” within the primary school. Used in the educational setting, the term, “families” refers to the practice of 1) organizing individual primary classrooms into larger units and/or 2) allowing children to remain with a teacher for more than one year. Although both conditions do not have to exist in order to call a group a family, they often do. Model Laboratory School is an example of a primary school that combines both features.

When students enter the doors of Model Laboratory School for the very first time, they are assigned to a teacher and to a larger unit, known as a “family.” This family unit, of which the five-year-olds are an integral part, consists of three other primary classrooms. Taken as a whole the “family” represents students and teachers at all levels of the primary school. Within the family unit, teachers plan yearly and seasonal thematic units, flexibly group and regroup students for instruction, team teach units when appropriate, and share assessment responsibilities.

Why is the family unit so important to the children? Membership within a family lasts for the length of the children’s participation in the primary school. Although homeroom assignments may vary during the four years of primary school, students often work with the same group of teachers and students throughout the primary years. A principal advantage of the family system is that it provides both stability and diversity. Because children work within the group for an extended length of time, teachers have the opportunity to get to know the student and the parents better. Students also have the opportunity to get to know their peers and teachers. No longer do children, parents, or teachers have to lament at the end of the year, “I just felt like I was making progress, and now I will have to start all over in the fall.” The larger number of family members also allows for diversity. As children are flexibly grouped throughout the day and year, students have opportunities to work with children of all ages and ability levels.
Many of these same benefits are echoed by the Kentucky Department of Education in the primary school document, State Regulations and Recommended Best Practices. It states:

Allowing children to remain with the same teacher(s) for more than one year fosters:
- Continuity of study patterns.
- A consistent family atmosphere.
- An opportunity to be both a follower and leader.
- Familiarity with routines and procedures.

Regardless of the grouping pattern that your school chooses, keep in mind that flexibility is the single most important consideration in any plan. Children should be grouped and regrouped throughout the day and year for a variety of purposes. Irregardless of good intentions, plans that track or label students are detrimental to children.

**Issues Related to Inclusion**

Three areas of special concern to educators as they begin implementation of the primary school are: 1) the inclusion of five-year-olds into the program, 2) the inclusion of children with special needs, and 3) the assurance that gifted students are given opportunities to realize their full potential. Educators and parents alike want to be sure that the unique needs of these students are met in the primary setting.
The following section describes how a number of schools are solving these problems and in the process are creating programs that enhance all children's learning.

Five-Year-Old Inclusion

Scheduling and financial difficulties aside, many educators and parents have voiced concerns about whether it is developmentally appropriate to include five-year-olds in the primary school. Recognizing the legitimacy of these concerns, the Kentucky Department of Education has developed the following guidelines as recommended best practices:

- Five-year-olds should be included with other primary children to the maximum extent possible.
- Some five-year-olds may be grouped for all or some of every day with six-year-old students.
- Some five-year-olds may be grouped for all or some of every day with six-, seven-, and/or eight-year old students.
- Individual five-year-olds may be grouped some of every day with those children attending the preschool program, as appropriate.
- While the primary program is focused on addressing the developmental needs of each individual child in the most appropriate educational setting, it is conceivable that some five-year-old students may need to remain in a single age grouping of students for a period of time during the first semester of the school year. After this time, all five-year olds will be integrated with other primary children at least two times per week for instructional activities. (For a list of suggested, quality activities, refer to the Kentucky Department of Education document, State Regulations and Recommended Best Practices.)

Examples of full inclusion of five-year-olds into the primary program may be found at Nicholasville, Northern, and Saffell Street Elementary schools. Although each of these programs is unique, they...
share a common schedule. In each of these classrooms, the five-year-old students in the class attend school for one half day while older primary students in the class attend for a full day. (Note: Only one group of five-year-old students attend this class; when they are not present, the total class size is smaller.) Teachers using this system cite advantages, particularly in the areas of reading and writing, for both half day and full day students. As was true in the one room school, younger students seem to blossom as they emulate many of the literacy activities of older children. Older students, on the other hand, benefit from the leadership opportunities afforded them. They also profit from the lower class size which characterizes the half of the day when first year students are not present. Teachers note that they often use this opportunity to focus on basic communication and mathematics skills that will help the children throughout their school years.

Tamarack Elementary School provides another model for full inclusion of five-year-old students. Unlike the previous examples, the program at Tamarack incorporates students from two half day sessions into a full day program. Although scheduling for 48 half day students and 24 full day students is a bit daunting, team teachers Allison Finley and Paula Steele have developed a developmentally appropriate curriculum that meets the needs of both half day and full day students.

How did they accomplish this? One key is the flexible use of whole and small group instruction, individual work, and center time. Ms. Finley and Ms. Steele begin each morning with whole group activities. Typical activities during this period include show and tell, calendar, and journal writing. The teachers also use this time to introduce theme related materials. For instance, one morning Ms. Finley read the book, Is This a House for a Hermit Crab? and introduced a live hermit crab to the children. Later that same week, the children used this time to act out a story related to the current thematic unit, oceans. Following whole group time, students work independently or cooperatively at center activities. A contract system (described more fully in Chapter 3) ensures that students have an opportunity to work at a variety of tasks and with a variety of students.
Lunch marks the middle of the instructional day with morning students departing before lunch and afternoon students arriving after this meal. To accommodate the new arrivals yet not duplicate activities with the full day students, Ms. Finley and Ms. Steele briefly divide the children. Half day students meet with one teacher for whole group activities similar to those used during the morning session. The older students use this time for activities in math and reading. Following special classes, all students participate in a centers’ time. As in the morning center period, students use a contract system to determine assignments.

Careful coordination with special class teachers, such as P.E. and music, allows the teachers to work with small groups of children throughout the day. Children not attending special classes remain in the room where they work with Ms. Finley and Ms. Steele at activities designed to meet their individual needs. These periods are often used to challenge children or to give them an extra opportunity to practice strategies. Ms. Finley and Ms. Steele attribute the success of this schedule to the fact that it combines structure with flexibility.

In contrast to these examples, other schools have decided that partial inclusion best meets the needs of their five-year-old students. Many proponents of this type of program feel that some five-year-olds benefit from the security that a self contained classroom provides. They also note that specialized areas, such as blocks, sand and water tables, and dramatic play centers, are often missing in the primary classrooms. Advocates of partial inclusion note that this plan provides five-year-old students with the best of both worlds.

The following are examples of some of the activities that are currently being used with five-year-olds and older primary children: buddy reading, bookmaking (process writing), cooking, thematic studies, centers, and field trips. Jacqueline Vance, assistant director at Model Laboratory Schools, offers the following advice when selecting or planning activities.
• Be sure the activities are varied. For example, buddy reading is an excellent activity for this type of program, but it should not be the only activity.

• Make sure five-year-olds are integrated into primary activities on a regular basis, but do not let structure preclude spontaneity. Base inclusion on appropriateness not on the dictates of the schedule.

Children with Special Needs

Including all students into the primary program regardless of their abilities or limitations is an important part of the primary program. Built on the premise that “all children can learn,” teachers in the primary school use developmentally appropriate practices, in conjunction with other critical attributes such as multi-age, multi-ability grouping, to create a learning environment that is child centered and accommodates a wide variety of learner needs. This same environment also supports continuous progress toward learning goals and enhanced self-esteem for all students.

However, the question is sometimes raised, “Why place students with special needs into a regular education environment?” The answer is simple. Students, regardless of their ability level, learn best in a social environment that includes many opportunities for peer interaction, risk taking, and experimentation. A strength of the primary classroom structure is it possesses all of these characteristics. It also recognizes that all children have diverse and special needs. Such a setting is, therefore, appropriate for all students.

A common worry for classroom teachers who are not trained in special education is whether or not they will be able to meet the special needs of these children. This is a legitimate concern, a concern shared by educators and parents alike. The answer to this question is cooperation, preparation, and continued support. Before any child, including those with special needs, is placed in a classroom, the educational goals for that child should be clear. In the case of a child with special needs, these goals should be developed in conjunction with
Whenever possible, full inclusion is the goal of one school's special education program.

the special education teacher, parent, and the classroom teacher. Once these goals are established, specific plans should be developed which include strategies for achieving these goals as well as methods for monitoring both the success of the plan and the growth of the child. In addition to these preparations, both teachers and students need continued support in the classroom in the form of professionally trained faculty and access to resource room staff and materials.

Many schools are already integrating special education students into their primary programs. At Cardinal Valley Elementary, integration of special education students occurs on a daily basis. For example, in Carol Perkin's classroom, a student with cerebral palsy works with other students on a task. Although the student with cerebral palsy cannot complete many of the physical aspects of the project, such as recording data, she is a contributing member of the group. She helps analyze the data and provides suggestions as the final graphs are prepared.

Kent Mann, assistant superintendent at Danville Independent Schools, notes that whenever possible full inclusion is the goal of their special education program. To accomplish this goal, several teams of special education and classroom teachers were formed. Within these classrooms, students with disabilities ranging from the most severe (trainable mentally disabled) to less severe (educable mentally disabled, learning disabled and speech impaired) are presently assigned to primary classrooms for the major part of the day.

Mr. Mann credits the success of their program to education and support. All teachers in the primary school, whether or not they are currently teaming with a special education teacher, take part in the "Consultation and Collaboration" workshop offered by the Kentucky Department of Education's Office of Exceptional Children. Mr. Mann feels that this training is crucial because it provides teachers with the skills critical to collaboration. It also gives teachers a common ground or knowledge base to begin developing programs. Regular classroom teachers remark that the "teaming" system is particularly helpful for them because a special education teacher or aide is involved in all phases of instruction (planning, implementation, and evaluation).
In addition to the teachers in the classroom, students who are eligible have access, when needed, to the services of a resource teacher outside the primary setting. This service ensures that all the needs of the children, as outlined in their individual education plans, are being met.

Jennifer Mockbee, primary teacher at Bellevue Elementary, also teams with a special education teacher. She notes that one of the benefits of this type of teaming is that distinctions, such as "my" and "your" students are replaced by "our." Both teachers accept responsibility for the students' progress. The learning of the special needs youngsters is no longer the exclusive responsibility of the special education teacher.

Ms. Mockbee continues, "The students perceive the special education teacher and myself as "their" teachers." Even more importantly, students perceive all the children as "their" classmates. For children without disabilities, the result of integration of special needs children is the understanding that all individuals can make a unique contribution to life regardless of their differences.

Supporting Gifted Children

Does the establishment of the primary school mean the end of gifted education? The answer to this question is "no." In fact, the primary school raises the ceiling on learning and encourages children to move as far as they can at their own pace.

One of the critical attributes of the primary program is the provision for continuous progress of all students. No longer are students restricted to a single grade level textbook in reading, mathematics, social studies, and science. As students engage in thematic units in which they are searching for answers to real life questions, they read widely in many types of materials at a variety of reading levels; they write up the results of their research; they conduct experiments, record their observations, and write summaries and conclusions. Driven by their own innate desire to make sense of the
The primary program fosters talents of children in many areas. World and supported by teachers and parents, high ability students are able to go far beyond the traditional limitations of age graded classrooms.

The primary program recognizes and fosters the talents of children in many areas. Traditionally, gifted programs were limited to students with strengths in traditional academic areas. While excellence in academics is still very important in the primary setting, special talents in the areas of music, art, movement, sports, and leadership are also recognized and fostered.

Dalton Oak, principal at Goshen Elementary, comments on the expanded opportunities for gifted education since the passage of KERA. Prior to this year, Kathleen Ronay, teacher of gifted education at Goshen, spent the major part of her time with intermediate grade children through pull-out programs. This year, Ms. Ronay's role has changed as she collaborates with both intermediate and primary teachers to develop programs that stimulate and challenge all children, including those who are gifted. One such project, developed by Ms. Ronay, the media specialist, and three primary teachers, was designed in conjunction with a year long theme of "Journeys." For the purpose of this project, the teachers focused on the core concepts in social studies dealing with geography and map skills. In addition to these academic goals, the teachers concentrated on developing activities that would require problem solving and decision making.

Guided by both Howard Gardner's work related to multiple intelligences and the 75 Learner Outcomes, these teachers provided a framework within which students could solve problems and make choices concerning both the focus of their research and the method of reporting this information. Ms. Ronay reports that a particularly successful aspect of this project was the creation of a rubric to assess the children's abilities as responsible workers. Developed with the children at the beginning of the project, it acted as a guide for students and supported independence. What is the result of this and other projects? Motivated, successful learners who know no limits to their knowledge and understanding. Mr. Oak also notes that this type of programming not only allows more children to be served but also increases the frequency of contact.
With the increased emphasis upon serving the needs of all students within the general educational setting, does it mean that pull-out programs are no longer allowed? In answer to this question, let us refer to the Kentucky Department of Education document, State Regulations and Recommended Best Practices for Kentucky's Primary Program. This document states that specialized services are allowed when appropriate. The important factor to keep in mind when considering pull-out programs of any kind is whether they allow for developmentally appropriate instruction and best serve the needs of the child.

COOPERATION AMONG TEACHERS

As the previous examples show, the primary school is based on cooperation...cooperation among students...among students and teachers...and first and foremost cooperation among professional staff. Identified as one of the seven critical attributes, professional teamwork is actually a vehicle for achieving the other critical attributes. Without professional teamwork, efforts to design a developmentally appropriate curriculum, to plan for positive parent involvement, to provide authentic and continuous assessment, and to organize flexible grouping patterns will be, at best, hit or miss. Of even more importance, professional teamwork provides the support necessary to sustain people and change. Unfortunately, without this support, the result is often teacher burnout and rejection of primary reform.

COMMON PLANNING TIME

For many schools the search for common planning time has been the major impediment to cooperation among teachers. While this issue remains, in the words of one superintendent, "a big problem," many schools are successfully grappling with this puzzle. Although the "perfect" solution remains a bit illusive, the following are some examples of ways Kentucky primary schools are facing this issue.
Students have the opportunity to participate in a number of quality activities.

Utilization of Special Area Staff

Special area classes, such as music, physical education, and art, have traditionally been used to provide elementary teachers with planning time. With the implementation of the primary school, the issue of planning time, a thorny issue at best, was further complicated by the need for common planning time among cooperating teachers.

Acknowledging the crucial link between planning time and effective schools, the Hardin County School Board made this issue a top priority. As evidence of this commitment, the Board of Education provided each school with the funds to hire additional special area faculty. The choice of what type of special area teachers was left to the individual schools. For G.C. Burkhead Elementary School, the additional faculty members mean that cooperating teachers have a 40 minute planning period each day. Although the reason for hiring additional staff was to support teachers, the real beneficiaries of this decision have been the children. They not only profit from the expanded services of the “special” teachers, but the expanded curricular activities resulting from greater cooperation among the classroom teachers.

Like Hardin County, Bourbon County schools also uses the services of special area teachers to provide planning time. To solve the issue of common planning time, they organize their special area teachers into teams, much like the classroom teachers. Using this team approach, the special classes for any given team of classroom teachers are offered at the same time. For example, teacher A, B, and C may be working cooperatively. Special classes, such as art, music, and P.E. are offered at the same time each day. On Monday, Teacher A’s children go music; Teacher B’s children attend an art class; and Teacher C’s children participate in P.E. On succeeding days, the schedule is rotated so that children may participate in a different activity. This is an effective method for Bourbon County schools because this system works even in instances where special area teachers are responsible for more than one school. The only disadvantage to this approach is the fact the special area teachers are not available to plan with the classroom teacher.
Alternative Methods

While a majority of schools currently use special area classes as a method of providing planning time for elementary teachers, several schools are developing alternative methods for solving this issue. Connie Aubrey, principal at Nicholasville Elementary School, describes a plan that their school hopes to pilot during the 1993-94 school year. This plan provides teams with one additional Friday a month to plan. Dubbed cluster planning, this system calls for three-fourths of the teachers in the primary school to "absorb" the students from the classrooms of the remaining one-fourth of the teachers. This action frees one-fourth of the staff to plan as a team. The benefits of this move are not only for teachers. This system gives students the opportunity to interact with a greater variety of students and teachers as well as to participate in an increased number of quality activities.

Similar plans that require a portion of the staff to assume teaching responsibilities while the remainder of the staff has common planning time have been developed by other schools. Each of the following plans provide a team of teachers one afternoon a month with time to plan.

- Instructional aides teach in the classrooms while the teachers plan.
- Intermediate level teachers incorporate primary students into their activities allowing primary teachers to plan cooperatively. Since turnabout is fair play, on a subsequent day, primary teachers include intermediate students in classroom activities giving intermediate teachers common planning time.
- In schools where there is more than one family or team of primary teachers, teachers rotate planning and teaching duties. While one family or team plans, the other faculty are responsible for teaching.

Ms. Aubrey, principal at Nicholasville Elementary, also notes that they have submitted to the State Board for approval a second plan that would involve early dismissal of students one afternoon per month. Parents would have the option to pick up their children at school, make
arrangements for them to go to day care, or let them stay at school for an arts and enrichment program. Teachers, on the other hand, would meet in teams or occasionally as a whole faculty to plan cooperatively. As of now, this plan has not been approved. If it is approved, the school may be required to add minutes into the day to make up for the reduction in the total number of hours of instructional time.

Although these are only a few examples of how schools are supporting greater cooperation among teachers through the provision of common planning time, they provide insight into the kind of commitment and ingenuity necessary to solve this problem.

THE LIBRARY/MEDIA CENTER

You may have noticed in the previous discussion of securing common planning time for teachers there is no mention of the library/media center. This highlights the fact that we feel the library/media center is a valuable resource that should be available to all children every day.

Support for this contention can be found in the 75 Learner Outcomes. It is not an accident that the first of Kentucky's 75 Learner Outcomes addresses the issue of information...how to locate sources of information, how to select information that is relevant to a specific need or problem, and how to utilize this information in a problem solving manner. The ability to access and use information - information power - is an essential skill for success in both personal and professional endeavors. In terms of Kentucky educational reform, information power is an essential vehicle for achieving the Six Learning Goals and 75 Learner Outcomes.

As an established source of information, the library media center and its staff are natural and integral partners in the acquisition of information power. For this partnership to flourish, however, librarians, teachers, and students must shed the traditional notion of the library media center as a mere "warehouse" for materials and the library media specialist as simply a "supplier" of materials. Thought of as a service agency, the focus shifts from materials to people.
To accomplish this shift, we feel that it is essential that students and teachers have free access to the resources of the library/media center and staff at the point of need. Flexible scheduling, as its name denotes, is a system that permits open access to the library/media center. With this type of scheduling, library use is based on authentic needs “to know” and is not held captive by the dictates of “the” schedule. This is especially important as students engage in research projects related to theme centered units, process writing activities, and literature-based language arts programs where they need frequent and open access to materials on a variety of topics.

SUMMARY

State regulations state that primary children must be grouped into multi-age and multi-ability classrooms. They also stress that the goal of all grouping patterns is flexibility. Children of different ages, genders, and abilities should be grouped and regrouped throughout the day based upon instructional needs.

Schools have chosen to accomplish this mandate in a variety of ways: dual year plans; three year plans, with and without full five-year-old inclusion; and four year plans. Examples are also presented of ways schools have addressed the challenges posed by inclusion of five-year-olds and special needs students, and gifted children.

Since the provision of common planning time is vital to the success of the primary program, schools have also had to reassess traditional planning schemes and, in some cases, design innovative plans for securing common planning time.
REFERENCES


In chapter one, we visited Pam Brown's primary classroom. Notable among the differences between this primary classroom and the traditional elementary classroom was the physical environment. As the previous description of Ms. Brown's classroom indicated, the traditional lines of single person desks designed to support solitary work assignments were gone. In their place was an assortment of tables, chairs, pillows, carpets and dividers carefully arranged throughout the room in a manner that encouraged active involvement, flexible grouping, and opportunities for student choice, cornerstones of a student centered, primary classroom.

**Traditional Classroom**

- Teacher's Desk
- Small Group
- Bulletin Board

The traditional classroom is teacher centered. Most interactions originate with the teacher and travel in a loop from teacher to student.

**Primary Classroom**

- Math Center
- Art Center
- Group Area
- Computer

The primary classroom is student centered. It fosters student to student and student to teacher as well as teacher to student exchanges.
Make it a point to visit a variety of primary classrooms.

You may ask yourself, how did Ms. Brown arrive at a physical arrangement that is both child centered and functional? Will a similar arrangement work for your classroom? And, if so, how do you overcome physical limitations, such as lack of space or equipment?

The goal of this chapter is to provide you with a framework that will assist you in the design of a physical learning environment that supports the particular needs of your students. In doing so, we will share with you examples of actual Kentucky primary classrooms, a framework for transforming your personal philosophy of learning into a functioning classroom, and practical tips for addressing issues, such as setting up and managing centers.

GETTING STARTED

Perhaps the most useful (and easiest) source of information when considering changes in the learning environment is right next door...down the hall...or around the block. Make it a point to visit a variety of primary classrooms. Start in your own building. Talk with colleagues; share your concerns; brainstorm possible solutions for these and other problems.

To help you get started, let’s visit four Kentucky primary classrooms and observe how the teachers in these classrooms changed from a traditional, teacher centered learning environment to one that is student centered.

A QUESTION OF SPACE: FOUR PRIMARY CLASSROOMS

The allocation of space within the learning environment represents a major challenge when designing a primary classroom. Traditionally, most of the space in a typical classroom was taken up with individual student desks. This was a very practical use of space when whole group instruction coupled with pencil and paper tasks was the dominant instructional strategy. As teachers move away from whole group instruction and begin utilizing a variety of teaching strategies that include flexible grouping, learning centers, and cooperative learning,
they have found it necessary to reassess the allocation of space within the classroom. With this re-evaluation has come the question, "What do I do with the desks?...Do I shove them out the door?...Do I simply rearrange them into blocks to serve as tables?...Or, do I continue to use them much as I have in the past?" The following section describes how four primary teachers resolved this dilemma and in the process created a classroom that is child centered.

Squires Elementary

Our first stop is the primary classroom of Beverly Wells at Squires Elementary school. For Ms. Wells, the decision to eliminate individual student desks was motivated by her belief that:

- Students need to be ACTIVELY involved in their own learning.
- Students need opportunities to make choices regarding their learning.

To achieve these goals, she chose a centers approach, where students were free to select from a variety of activities. This strategy suited her goals because it provided a structure within which her students could make choices concerning their learning; it allowed for
Each child is supplied with a plastic dishpan or "bin" to store personal belongings. These bins provide students with a private place but take a fraction of the space of a traditional desk.

flexible grouping patterns where children of various abilities and ages could work independently or cooperatively; and it promoted active involvement.

Her most pressing need was space...space not only to accommodate the centers but to facilitate movement among centers. Ms. Wells' solution was the elimination of individual, pre-assigned desks. Using, instead, a combination of tables, chairs, carpets, pillows, and shelving, she created a total learning environment that belonged to everyone.

As serendipity would have it, this decision not only provided Ms. Wells with the space she needed but supported Kentucky Learning Goal 3, self-sufficiency, and Learning Goal 4, responsible group membership. Ms. Wells also notes that the switch from private to community property has eliminated many disputes arising from ownership and reduced feelings of competitiveness concerning material possessions. As one observer to her classroom noted, “When entering this rich room, little more is needed of children than their minds and imaginations.”

W.D. Osborne Elementary

Like Ms. Wells, Genevee Slone, primary teacher at W.D. Osborne Elementary, uses a variety of grouping patterns throughout the day. Ms. Slone, however, felt that her children needed a home base - a place to start the day, a place to store materials, and a place to do individual work when appropriate. For these reasons, she chose to keep the individual student desks that have served her well in the graded setting, but to use them in a flexible manner.

In an effort to maximize the available space, she arranged the desks into two long tables in the center of the room. The advantages of this centrally located arrangement quickly become apparent during whole group meeting times, such as morning meeting and whole group instruction. From this central vantage point, students are able to see and interact with the teacher and one another.
This arrangement also proved to be a plus during center and small group times. After the morning meeting, students move freely about the room to pursue a variety of activities, such as writer’s workshop, literature based reading and the day’s discovery math puzzle. During this period, the desks that served previously as private, individual work spaces now become community property. Working individually or in small groups, the students find the large, centrally located space created by the union of the desks particularly useful for large scale projects, such as graphing, drawing, and mapmaking.

Squires Elementary

Armed with an infinite number of ideas but a finite amount space, team teachers, Kim Barrett and Karen Brittain, decided that the key to their space dilemma was to avoid duplication. By treating their classrooms as complementary halves instead of separate entities, they decided that they could effectively double the learning environment.

The principal difference between these rooms (and primary advantage of this system) is the distribution of large group and center space. A major portion of Ms. Barrett’s room is devoted to a large group meeting space. Like Ms. Sloane in the previous example, she groups the student desks into blocks of tables to facilitate interaction among students as well as with the teacher. Ms. Barrett points out that the perpendicular arrangement of the blocks of desks is particularly useful because of its flexibility. When whole group direct instruction is appropriate, she uses both “tables.” During small group, skills lessons, she uses the smaller block of desks.
Ms. Brittain's room, on the other hand, is organized primarily into learning centers or "stations." Because the majority of whole group direct instruction takes place in Ms. Barrett's room, Ms. Brittain has plenty of space to establish both traditional centers (writing, science, social studies/mapping station, listening, and reading) and a number of nontraditional centers (building and discovery). The math and drama centers are in Ms. Barrett's room.

Although the complementary nature of these rooms is apparent, there are some features that both teachers feel are essential. Each room has an informal meeting area that is used for shared reading, directions, presentations, and group meetings. Reflecting the importance placed on reading, each classroom is also equipped with a well stocked library and a comfortable reading area.

Although the enthusiasm in Ms. Brittain's voice and smile on her face is a clear testimonial to its success, she is quick to point out that cooperation is the real key. Changes in the physical environment have reflected changes in traditional mindsets. For Ms. Brittain and Ms. Barrett, the union of rooms is merely the outward manifestation of a similar marriage of curriculum and goals for their students.
These four classroom arrangements demonstrate that there is no single "perfect" organizational pattern. Sharing a similar vision of a child centered, interactive classroom environment, each of these teachers arrived at a classroom organization that is unique. Each reflects the needs and goals of the learners - students and teachers alike - within that classroom.

A REFLECTION OF YOUR PERSONAL PHILOSOPHY OF LEARNING

Are you ready to roll up your sleeves and begin to make the dust fly! Before you do...there is one more essential step.

As you can see from the previous examples, the decisions made by these teachers were not the result of chance. They were driven by the individual’s personal vision of learning coupled with knowledge of the seven critical attributes established by the Kentucky Department of Education.

Take a few minutes now to complete the following activity. Step One helps you articulate your beliefs regarding how primary children learn best. Step Two of the activity provides you with an opportunity to brainstorm a number of options concerning changes in the physical environment that will support your personal vision.

<table>
<thead>
<tr>
<th>PRIMARY CHILDREN LEARN BEST WHEN...</th>
</tr>
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<tbody>
<tr>
<td><strong>STEP ONE:</strong> Identify your beliefs about the way that children learn best.</td>
</tr>
<tr>
<td><strong>STEP TWO:</strong> After you have identified your beliefs, think of ways in which you might organize your classroom to facilitate implementation of these beliefs.</td>
</tr>
<tr>
<td>1. Learning is a social process</td>
</tr>
<tr>
<td>2. Learning is an active process</td>
</tr>
<tr>
<td>3.</td>
</tr>
</tbody>
</table>
A PLANNING OPTION

Now that you have a clear focus regarding how you feel children learn best and have had the opportunity to visit a number of primary classrooms, you may be ready to begin arranging the learning environment within your classroom.

If, however, you are still undecided or would like to experiment a bit without the rigors of furniture moving, Fayette County Public Schools has developed a planning guide to help their primary teachers design the physical arrangement of their classrooms. A notable feature of this planning guide is a strategy for analyzing the physical features of a classroom and matching these features with the needs of the primary program. Other features include: 1) examples of room arrangements of selected Fayette County primary classrooms, 2) a planning grid, and 3) scale drawings of classroom furniture that may be cut out and used with the planning grid.

For more information, contact the Director of Elementary Curriculum and Instruction, Fayette County Schools, 606-281-0233.

FEATURES OF A CHILD CENTERED PRIMARY CLASSROOM

LARGE GROUP AREA - "THE GATHERING PLACE"

Nestled in the front corner of the classroom, the teacher sits in a rocking chair reading the picture book, Do Not Open, to her students. As the suspense grows in the story, the children seated on the carpet lean towards her savoring the increasingly menacing features of the monster portrayed in the story. After a lively discussion regarding their response to the monster and its promise to grant them anything they desire, the teacher introduces the use of exclamation points within the context of this story and the student's own writing.
Later in the morning, students once again come together in the warmth of this meeting place. This time, however, they manipulate beans (doubling as grasshopper eggs) in and out of the compartments of an egg carton. They add and subtract "eggs" as the teacher weaves throughout the activity a story of a mother grasshopper.

The rocking chair and carpeted area surrounding it are an integral part of the classroom. It is the place where the class meets as a whole. Students begin their day here reviewing the daily activities; they listen to stories read by the teacher and/or peers; they receive direct instruction, such as the use of the exclamation point; they dance and sing; and they celebrate published books to mention only a few uses of this area.

Although this large group area differs sharply from the desk and chair arrangement of a traditional classroom, it serves much the same purpose of providing a place for the class to meet as a whole. Unlike the previous arrangement, this open area possesses the advantage of space and flexibility.

Carpet squares are a traditional and effective method of providing children "a place" of their own when seated on the floor. Other options include: 1) Yarn loops - If your classroom is carpeted, take a long carpet needle that is threaded with yarn and attach yarn knots similar to those used in quilting into the carpet where you want children to sit. 2) Masking tape figure - With masking tape, "draw" a large shape on the floor, e.g., a heart for Valentine's Day or a shape currently being studied.

Small Group/Learning Centers - "The Work Place"

As the previous examples of primary classrooms indicate, many teachers have found learning centers to be an effective teaching strategy for use within the primary setting. Reasons for their effectiveness include:
- Centers promote active student involvement.
- Centers allow students to move at their own rate and at their own level of ability.
- Centers provide students with opportunities to make choices.
- Centers are flexible; they provide opportunities for students to work independently or cooperatively.
- Centers are compatible with theme studies.

### Setting Up Learning Centers

#### Permanent Learning Centers

The choice of how many, what kind, the duration of, and the amount of time that will be spent in center activities throughout the day or week is determined by the specific goals of the learning activity(ies).

For example, Debbie Brown, a primary teacher at Model Laboratory School, believes that children need the opportunity to learn in a variety of ways. To achieve her objective of providing students with alternative ways of learning, she established eleven permanent centers modeled around Howard Gardner's theory of multiple intelligences.

<table>
<thead>
<tr>
<th>Research:</th>
<th>Interpersonal, Spatial, Logical/Mathematical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listening:</td>
<td>Linguistic, Interpersonal, Intrapersonal</td>
</tr>
<tr>
<td>Language:</td>
<td>Linguistic, Interpersonal, Intrapersonal</td>
</tr>
<tr>
<td>Nature:</td>
<td>Linguistic, Interpersonal, Intrapersonal</td>
</tr>
<tr>
<td>Computer:</td>
<td>Logical/Mathematical, Spatial</td>
</tr>
<tr>
<td>Music:</td>
<td>Musical, Logical/Mathematic, Spatial</td>
</tr>
<tr>
<td>Art:</td>
<td>Bodily/Kinesthetic, Spatial</td>
</tr>
<tr>
<td>Imagination:</td>
<td>Bodily/Kinesthetic, Interpersonal, Intrapersonal</td>
</tr>
<tr>
<td>Math:</td>
<td>Logical/Mathematical, Spatial</td>
</tr>
<tr>
<td>Construction:</td>
<td>Interpersonal, Spatial, Logical/Mathematic</td>
</tr>
<tr>
<td>Conference:</td>
<td>Interpersonal, Intrapersonal</td>
</tr>
</tbody>
</table>
Although specific activities are continually changing within the centers according to the current classroom theme, the eleven centers, taken as a whole, assure Ms. Brown that she is providing her students with a myriad of opportunities to use and develop all their talents.

The following diagram of Ms. Brown's classroom shows the placement of the centers and highlights the integral nature of these centers to daily learning experiences.

Allison Finley and Paula Steele, team teachers at Tamarack Elementary School, chose a center's approach because of its flexibility, a characteristic that is essential when juggling the needs of 72 first, second, and third year primary students. The primary challenge (No pun intended!) for Ms. Finley and Ms. Steele was the integration of two half day sections of first year students (morning and afternoon sections) into the full day schedule. How could they provide each of the students in the half day sections comparable experiences without duplicating the experiences of the full day students?

The answer for these teachers was the creation of fourteen learning centers. Recognizing the importance of both academic and social learning goals, they developed centers around these two categories. The social centers, such as the sand and water table, blocks,
Be sure some books are displayed face out.

puppets, flannel board, and kitchen, incorporate many of the centers traditionally associated with kindergarten classrooms. Academic centers, on the other hand, correspond closely to traditional subject areas: reading, math, social studies/science, writing, and art.

Keenly aware of the need to balance social and academic activities, Ms. Finley and Ms. Steele use a contract system to rotate students through the centers. Half day students work each day in one social and one academic center. Full day students, on the other hand, work in three academic centers and one social center. A detailed description and example of the contracts and schedule are included later in this chapter.

Temporary Learning Centers

All learning centers need not be permanent as in the previous two examples. Often some centers are temporary and designed as a part of a thematic unit or to fulfill a specific learning objective. For example, Pamela Huff, teacher at Harrison Elementary School, creates a replica of a settler's cabin each year as a part of her pioneer unit. She encourages her students to "experience" pioneer life by acting out scenes from both fictional and factual accounts of this period. The center is also a powerful writing incentive; children keep journals, research and write reports, and create stories and poems. At the end of the unit, the cabin disappears.

Center Options

LITERACY CENTER: This center combines the traditional library, writing, and listening centers. Regardless of its name, the focus of this center is meaning-making. Within this print rich environment, students use each of the language arts-listening, speaking, reading, and writing-as they construct meaning and make sense of the world around them. A myriad of reading materials in the form of children's literature, magazines, functional print, and child-authored books abound. With these texts as models that print is not only meaningful but fun, children are encouraged to create their own texts via a variety of traditional (paper and pencil) and nontraditional (tape recorder and computer) ways.
**EQUIPMENT BASICS:** A carpet, cushions, chairs, table, book racks, and shelves. **NOTE:** Comfortable and informal seating is a must; combine this with a secluded niche in which to curl and reading enjoyment follows naturally.

**CENTER MATERIALS:** A variety of good literature including picture books, predictable books, chapter books, rhymes, poetry, big books, student authored books, informational books, and magazines; posters; paper (different sizes); pencils, pens, markers, and crayons; story tapes, blank tapes and tape recorders; typewriter and/or computer/printer; blank books; chalk and chalk boards; flannel board and cutouts; manipulative letters of wood, crepe, foam, or plastic; letter stamps; chart paper; a picture file; index cards for word banks; and sentence strips.

**JUST FOR FUN:** Reading areas come in an assortment of shapes and sizes. The following are some examples from primary classrooms throughout the state.

- A reading loft; designed especially for high flying readers
- A reading tub (bath type tub - preferably with feet); a perfect place to drown your sorrows in a book
- A tractor tire; a cornucopia of books and magazines
- A refrigerator box; what better place to "chill out"

Whether you choose one of the previous suggestions or decide on a more traditional format, consider the following list compiled by Leslie Morrow which contains the features that teachers and students most liked in a reading center.

- The reading corner is comfortable; there are rugs, pillows, bean bag chairs, and a rocking chair.
- Open-faced bookshelves are available.
- There are head sets and taped stories to accompany books.
- There are stuffed animals representing specific books.
- There is a felt board and story characters and the related books. Also included are materials for constructing felt stories.
- Many books are available representing three to four grade levels.
- Five to eight books are available per child.
- Children may check out books each day.
- There is a system for children to keep track of books read.
MATHEMATICS CENTER: The math center is a depository for the many manipulatives used during hands-on and process math. Abstract number concepts become concrete as children count, measure, sort, and weigh objects. Even more importantly, the math center represents a “way of learning.” Children use mathematical concepts to solve real life problems and make sense of their world.

**EQUIPMENT BASICS:** A low table and chairs that allow children to work in small groups or alone; shelves and bins to store manipulatives; a color coding scheme identifying levels of difficulty of materials

**CENTER MATERIALS:** Pattern blocks; unifix or multilink cubes; attribute blocks; geoboards and geobands; color cubes; bean sticks and loose beans; base ten blocks; tangrams; primer scale; tools for measuring; objects for sorting, classifying, and ordering; cuisenaire rods; numerals; games and puzzles; real and play money; Lincoln Logs and other building materials; lacing boards; and BOOKS (informational, reference, and fiction)

SCIENCE AND EXPLORATION CENTER: Like the math center, the science center provides students with a method (scientific method) for looking at and making sense of the world around them. Children set up experiments, venture predictions, make observations, record data, draw conclusions, and evaluate processes with the goal of solving authentic problems.

**EQUIPMENT BASICS:** A low table and chairs that permit children to work in small groups or alone; space to set up and participate in experiments; shelves and bins to store materials. **Recommended options:** A sand and water table; accessories to accompany the sand and water table, such as sifters, shovels, pails, molds, funnels, measuring cups, small pitchers, hand pumps, spray bottles, and eye droppers

**CENTER MATERIALS:** Magnets; color paddles and prisms; electricity related items, such as batteries, wires, bells, and flashlight bulbs; magnifying glasses; simple machines (pulleys, gears, inclined plane); collections (rocks, shells, nests, insects); animal environments and animals; thermometers; globes, maps, and atlases; gardening tools and seeds; and BOOKS (informational, reference, and fiction)

ART CENTER: A permanent art center offers students daily opportunities to creatively express their feelings and impressions of the world around them. For example, students may use a variety of media to create illustrations for their own books, figures modeled after
artifacts in a science exhibit, posters for Book Week, or invitations to parents announcing a schoolwide read-a-thon.

DRAMATIC PLAY: Drama centers range from the familiar housekeeping center found in most kindergarten classrooms to recreations of a grocery store, bank, travel agency, or doctor's office developed in conjunction with a thematic unit of study. In either case, the drama area provides students with opportunities to practice social skills and cognitive processes in the context of real world situations.

The drama center is also an excellent vehicle for promoting literacy. A well stocked housekeeping area should include pencils and pads of paper to write shopping lists and record phone messages. A newspaper announcing weekly grocery specials as well as books to read to the "baby" at bedtime are other household essentials that demonstrate that literacy is integral to daily life.
GROSS MOTOR DEVELOPMENT CENTER: Due to space limitations, the large group area often doubles as a gross motor development area. In this area students are free to dance, exercise, act out scenes from such story favorites as *The Three Billy Goats’ Gruff*, and build vast cities with blocks. If there is not room for large motor equipment, such as a slide, climbing apparatus, etc., children should have daily access to areas (indoor or outdoor) where they can run, jump, climb, skip, and balance.

<table>
<thead>
<tr>
<th>EQUIPMENT BASICS: (Some of this equipment may be housed outdoors or in the gym.) Floor mats; stairs; balance beam (low); slide; rocking boats; wheel toys, pedal toys, wagons, ride-on vehicles, and scooter board.</th>
<th>CENTER MATERIALS: games (ring toss and bean bags; a variety of balls; jump ropes; plastic paddles and large bats; and sports equipment)</th>
</tr>
</thead>
</table>

THE POST OFFICE OR MESSAGE CENTER: A message center may be as elaborate as a fully equipped and functioning post office or as simple as a bulletin board attached to the classroom door. The essential ingredient is meaningful communication among peers and/or adults.

<table>
<thead>
<tr>
<th>EQUIPMENT BASICS: A container to mail letters (cardboard mailbox, standard mailbox, basket, or bucket) and individual containers marked with the student’s name to receive mail (cubbies, large manila envelopes attached to wall, shoeboxes, or a hanging shoe bag) OR a small bulletin board</th>
<th>CENTER MATERIALS: (These materials may be a part of the literacy center.) A variety of writing and drawing tools; paper in an assortment of sizes; envelopes; make believe stamps and stickers</th>
</tr>
</thead>
</table>

THE GALLERY (Display space): It is essential that examples of students’ work - both writing and drawing - be displayed throughout the room. While single, large displays of "cookie cutter" art projects or papers written on a common theme may inform the casual observer of classroom happenings, the homogeneous nature of these exhibits fails to reflect the unique contributions and talents of the children. Furthermore, large scale, generic displays of
work tend to stay on the wall long past their informational value and do not emphasize the integral part that literacy and art play in the children's daily learning.

A major advantage of small, informal displays of student work is immediacy. Such displays may be added to and taken down on a daily basis. All that is necessary is an empty space, a role of tape, or a box of tacks. By exhibiting work within the context that it was created, the display represents a serious and authentic expression of the child’s attempt to make sense of the world and to communicate this understanding to the world. These displays also say, “Keep up the good work. Your efforts are appreciated.” Examples of this type of display might include: inclusion in the literacy center of a flannel board story created by a small group of children, a model of the class' pet hamster exhibited next to its inspiration, or a poem taped to the window in celebration of a sunny day. In all cases, displays should be clearly labeled using the student’s own writing or a combination of student and teacher writing.

EQUIPMENT BASICS: Space at the student’s eye level
Note: Take a tip from retailers. Eye level is the premium display area; very high or low areas are often overlooked. Placing the students' work at eye level says, “This is valued.”

CENTER MATERIALS: Display tools (tape, tacks, clips, glue, pins)

OTHER CENTER POSSIBILITIES INCLUDE: Construction or block center, music center, cooking center, and computer/technology center.
Activities Within The Learning Center

Activities within the centers will vary depending upon the type of center, subject area, and/or learning objectives of that center. There are, however, two basics to keep in mind when planning center activities:

- Center activities must have clear objectives that help students move toward Kentucky’s learning goals and learner outcomes.

- Center activities must be flexible enough to accommodate a wide variety of abilities and learning styles.

The following are examples of center activities that fulfill these basics.

“*The Get Well Station*” (may also be a part of the Writing Center): During the flu season, Elizabeth Lewis of Wheeler Elementary School encourages students to write get well cards and letters to absent students. This type of functional activity highlights the integral part that literacy plays in daily lives, accommodates a variety of ability levels, and, best of all, is fun.

“*House for Sale*”: John Finch and Carla Cain, teachers at James A. Caywood Elementary combine science, research, writing, and a bit of economics in this activity. Working cooperatively, students select an animal and create a home for the animal. After studying an assortment of Real Estate Guides, the students write a short advertisement for their animal’s house. For example, one student wrote:

> Lots of space, A big, humongous, Lake full of fish, big dark room full of rocks, Only 50 nuts, call toll free 727-cave.

“*Now and Then*”: A Venn diagram is a useful device for comparing the changes that have occurred in the student’s hometown. Genevieve Slone, teacher at W.D. Osborne Elementary encourages her students
to interview their parents concerning the changes in their hometown, Wheelwright. After discussing these interviews, newspaper articles, and the students' own observations, the children complete a Venn diagram noting differences and similarities.

"Patterns": The following is only one of many science activities developed by Michele Bennett (Jessamine County Schools), Bonnie Myers (Clark County Schools), and Susie Nally (Woodford County Schools) in conjunction with the Elementary Science Theme Study Institute at the University of Kentucky. This and the other activities in this thematic unit address the science core concept, "patterns."

Using an assortment of leaves, ask the children to observe and record (records may be oral or written) all the observations they can about the leaves. After approximately 10-15 minutes, ask the students to sort the leaves into groups and to label each group. Encourage the students to group the leaves a variety of ways before they decide on their final grouping.

Follow up: Following the center activities, read and discuss the book Red Leaf, Yellow Leaf by Lois Ehlert. Relate the ideas in the book to the center activity.

A Planning Strategy

The following five-step strategy is a useful planning tool when designing center activities. It highlights the important part that Kentucky's learning goals and learner outcomes play in the planning process. It also provides teachers with a systematic approach for integrating centers into the total learning environment.

- Identify:  a) the core concepts you wish to teach.
  b) a general topic or theme.
- Identify specific learning objectives.
- Select/design group activities to meet objectives.
- Select/design center activities to meet objectives.
- Identify assessment procedures for the students and for the unit itself.
Managing Learning Centers

Once the decision is made concerning the number and types of centers to incorporate into the learning environment and the content of the centers, the question of management comes into play. How do you insure a smooth transition among centers? Should students have the freedom to choose among centers and if they do, how do you guarantee that each student has an opportunity to and are participating in all the centers? And first and foremost, how do you know that students are utilizing the centers as they were designed?

Debbie Brown, primary teacher at Model Laboratory School, explains that she uses a combination of free choice and teacher direction when assigning students to centers. The decision whether students are free to choose or are assigned a particular center depends entirely on the learning goal. For example, when Ms. Brown introduced a new drawing program for the computer, she felt it was essential that all students take part in the activity and that each student be given an equal and timely opportunity to use the program. For these reasons, she assigned pairs of students a specific center time. Letter writing, an ongoing activity of the Writing Center, is, on the other hand, strictly optional. Students are free to write and post as many or as few letters as they wish.

Ms. Brown has devised a simple scheme to insure that all students receive mail. All that is necessary is:

1) two cups - one labeled, “In,” and one labeled, “Out”
2) a number of popsicle sticks - each stick should have the name of one student in the class.

When students wish to write a letter to a classmate, they select a name from the “In” can. After completing and mailing the letter to that person, they place the name of the recipient in the “Out” can. When the “In” can is empty of names (popsicle sticks), the sticks are removed from the “Out” can, and the letter writing process begins again.
Whether the decision to participate in a center is student or teacher regulated, Ms. Brown finds the following "centers' sheet" helpful for not only monitoring the flow of students among centers but as a part of the students' self evaluation.

<table>
<thead>
<tr>
<th>Center</th>
<th>Activity</th>
<th>Evaluation</th>
<th>Date</th>
<th>What I Learned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Listening</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nature</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Computer</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Music</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Art</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Imagination</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Math</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conference</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Karen Schneider, a primary teacher at Yates Elementary School, differs from Ms. Brown in that she limits center activities to a portion of the day and prefers to rotate students through a specific set of centers. She too finds a "centers' sheet" to be a useful self-assessment and management tool. Using her computer, Ms. Schneider generates weekly center sheets which she attaches to an individual student's clipboard.

The use of individual clipboards, which are hung from pegboards near the entrance to the room, are an important part of her management system. The clipboard serves as an organizational tool designed to foster independence and responsibility. Children quickly learn that it is their responsibility to be at the correct center ready to work...No need to ask the teacher. In addition, the clipboard acts as a handy place to store any written work connected with weekly center activities.
Like Ms. Schneider, Ms. Finley and Ms. Steele, primary teachers at Tamarack Elementary School, use a contract system to rotate students through morning and afternoon center activities. Their plan is based on a system of five, color-coded sets of contracts - red, white, green, pink, and yellow contracts. Each day, students receive an individual contract from one of the color categories; color categories differ each day of the week. For example, Sam may receive a white contract on Monday, a pink contract on Tuesday, a green contract on Wednesday, a red contract on Thursday, and a yellow contract on Friday. Susan, on the other hand, may receive a red contract on Monday, a white contract on Tuesday, etc. Using this system, children complete a total of five contracts each week, thereby assuring them a variety of experiences. The following chart shows how contracts are rotated among children.

<table>
<thead>
<tr>
<th>Susan</th>
<th>M</th>
<th>T</th>
<th>W</th>
<th>Th</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sam</td>
<td>W</td>
<td>P</td>
<td>G</td>
<td>R</td>
<td>Y</td>
</tr>
<tr>
<td>Billy</td>
<td>Y</td>
<td>R</td>
<td>P</td>
<td>G</td>
<td>W</td>
</tr>
<tr>
<td>Doug</td>
<td>G</td>
<td>Y</td>
<td>R</td>
<td>W</td>
<td>P</td>
</tr>
<tr>
<td>Brenda</td>
<td>Y</td>
<td>P</td>
<td>W</td>
<td>G</td>
<td>R</td>
</tr>
<tr>
<td>Amanda</td>
<td>R</td>
<td>P</td>
<td>G</td>
<td>W</td>
<td>Y</td>
</tr>
<tr>
<td>Emily</td>
<td>W</td>
<td>R</td>
<td>Y</td>
<td>P</td>
<td>G</td>
</tr>
</tbody>
</table>

While this simple system guarantees all children equal opportunities to participate in a variety of activities, Ms. Finley and Ms. Steele caution teachers to periodically change the sequence of contract assignments. For instance, Sam, from the previous example, should not receive a white contract on Monday for the entire year. Inflexible, static systems of assigning groups should be avoided; they are not only boring, but limit children's opportunities to work with an assortment of students.
In addition to the color categories, contracts are divided into two types, full day and half day contracts. Because half day students participate in only one of the two daily center times, their contract consists of two work assignments, one academic center and one social center. Full day contracts contain four center assignments. Full day students participate in two academic centers during the morning session and one academic and one social center during the afternoon session. Displayed below is an example of a half day and full day contract from the pink category.

Despite individual differences in each of the previous systems, the teachers are unanimous in their approval of centers. They feel this strategy promotes independence and a sense of responsibility among children. They also agree that the independence that children gain using this approach gives the teacher the opportunity to work with students individually and in small groups, an advantage often missing in traditional classrooms.

**INDIVIDUAL WORKSPACE**

Individual workspace is as important in an interactive, student centered classroom as in a traditional classroom. Like the large group area, the difference lies not in the need but the appearance.
As teachers move toward flexible grouping patterns, it no longer becomes necessary to provide individual workspaces for all children at all times. Small group and center areas may double as individual work areas. For example, a science area furnished with an assortment of small tables and chairs may accommodate a group of students researching the shapes of snowflakes as well as an individual pursuing a completely different topic of his choosing.

When considering the issue of individual workspace, it is also important to remember that children sometimes need to be alone. For this reason, teachers should build into their classroom islands of solitude and quiet. A tall order you say in a bustling primary classroom...a tall order but not impossible. The following are private places we found in some of Kentucky's primary classrooms.

- A private nook behind the puppet theater
- A reading cave made from a large packing case
- A writing room underneath the reading loft
- A listening lair in the corner of the reading center
- A pillow conveniently placed under an unoccupied desk

**Scheduling Time**

As teachers integrate the curriculum, they are discovering that primary schedules no longer fit into the neat series of small boxes that are typical of teacher planning books. Large blocks of work time are replacing the short, discrete periods that were previously devoted to individual subject areas, such as math, reading, social studies, and science. Whether these work times are referred to as reading/writing workshop, language arts, center time, or independent research, they reflect the understanding that children need extended periods of uninterrupted time if they are to pursue meaningful and authentic tasks.

As serendipity would have it, a by-product of this type of scheduling is flexibility. At the beginning of the year when students are just beginning to learn to work for extended periods of time, independent work times may be limited to 20-30 minutes per day. As students learn to make choices, acquire new strategies for managing
their time, and become involved in long-term, ongoing projects, such as journal writing, bookmaking, and research projects of their own choosing, independent worktime may be extended. Norma Jackson, author of the book, *The Reading-Writing Workshop: Getting Started*, provides the following example. At the beginning of the year she spends a little less than one-third of the total workshop time on independent work. As the children gain experience, this time is expanded to over half of the total workshop time. Furthermore, Ms. Jackson notes that she is also flexible in the amount of time devoted each day to the reading/writing workshop. Depending upon the requirements of the class, this period may vary from a minimum of 60 minutes per day to a maximum of 2 1/2 hours per day.

Carol Cramer and Sharyl Emberton at Saffell Street use the following schedule in their primary classroom.

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:45-8:15</td>
<td>Limited choice (Children are arriving at school)</td>
</tr>
<tr>
<td></td>
<td>Reading, Writing, or Computers</td>
</tr>
<tr>
<td>8:15-8:45</td>
<td>Morning Meeting</td>
</tr>
<tr>
<td></td>
<td>News of the day</td>
</tr>
<tr>
<td></td>
<td>Reading aloud from a chapter book</td>
</tr>
<tr>
<td></td>
<td>Songs</td>
</tr>
<tr>
<td></td>
<td>Weather</td>
</tr>
<tr>
<td>8:45-9:00</td>
<td>Super Silent Reading</td>
</tr>
<tr>
<td>9:00-9:15</td>
<td>Snack</td>
</tr>
<tr>
<td>9:15-10:15</td>
<td>Writing Time (process writing)</td>
</tr>
<tr>
<td></td>
<td>(Children choose topics for writing)</td>
</tr>
<tr>
<td>10:15-10:30</td>
<td>Recess (Children go outdoors when possible)</td>
</tr>
<tr>
<td>10:30-11:30</td>
<td>Math</td>
</tr>
<tr>
<td></td>
<td>Half Day Students Arrive</td>
</tr>
<tr>
<td>11:30-11:45</td>
<td>Buddy Reading (Half day students arrive at differing intervals)</td>
</tr>
<tr>
<td>11:45-12:00</td>
<td>Afternoon Meeting</td>
</tr>
<tr>
<td></td>
<td>Half day students share news with full day students.</td>
</tr>
<tr>
<td></td>
<td>Read aloud a picture book</td>
</tr>
<tr>
<td>12:00-12:30</td>
<td>Lunch</td>
</tr>
<tr>
<td>12:30-1:30</td>
<td>Plan, Do, Review</td>
</tr>
<tr>
<td></td>
<td>Children plan (identify) an activity, work at that activity, and recall activity with group.</td>
</tr>
<tr>
<td></td>
<td>*Note: This period differs from free choice or assigned center time because children are responsible for planning, implementing, and evaluating their own work.</td>
</tr>
<tr>
<td>1:30-2:00</td>
<td>Special Classes</td>
</tr>
<tr>
<td></td>
<td>Music, library, or P.E.</td>
</tr>
<tr>
<td>2:00-2:30</td>
<td>Journal Writing or Guest Reader</td>
</tr>
</tbody>
</table>

**NOTE:** Social studies and science content is integrated throughout the day as children read and write.
Notable features of this schedule are:

- It satisfies the needs of both full day and half day students.
- It provides large blocks of time for children to read and write.
- It gives children many opportunities to make choices.
- It allows children to work cooperatively or independently.
- It encourages the exchange of ideas through social contact.

Ms. Emberton and Ms. Cramer are also quick to note the advantages of this type of schedule for them as teachers. Because students are self-motivated and working at projects of their own choosing, discipline problems are decreased. This time also gives them the opportunity to meet individually with students to discuss both social and academic concerns, thereby averting potential difficulties. Most importantly, Ms. Cramer and Ms. Emberton feel that the relaxed nature of the classroom allows them to get to know their students better.

SUMMARY

The choices regarding the organization of your classroom are endless...there is no single correct configuration...nor will any two rooms be alike. Decisions regarding room arrangement are based on the goals and needs of the students and teachers within a particular learning environment.
REFERENCES


4. THE SOCIAL/EMOTIONAL ENVIRONMENT

MAKING THE PRIMARY CLASSROOM WORK

Although the physical environments of the primary classrooms we visited are quite different, the social/emotional environments of these classrooms are remarkably similar. Each is characterized by an atmosphere of purposeful learning, excitement, and caring.

Why are these classrooms so remarkably similar in regards to the social/emotional environment? The answer...Each of the teachers in these classrooms understands that children must feel good about themselves before they can learn. One of the ways that teachers help children to feel good about themselves is to structure early learning experiences in such a way that students encounter success as they learn. This type of success - coupled with a growing competence in basic learning skills (reading, writing, and computing) - helps children to develop a sense of self-efficacy and industry. These characteristics, in turn, set the stage for future learning.

To achieve this type of social/emotional environment, the primary teacher must recognize the interconnectedness of the affective and cognitive domain. With this recognition comes the understanding:

- Children must feel good about themselves in order to learn.
- Children must learn in order to feel good about themselves.

Given this understanding, issues related to the affective domain, such as self-worth and cooperation, become as important to the daily activities as academic concerns.

KERA recognizes the importance of student attitudes and dispositions. Once considered outside the domain of the classroom teacher, Learning Goal 3, self-sufficiency, and Learning Goal 4, responsible group membership, acknowledge the importance of the social/emotional growth of children and make schools and teachers accountable for this growth.
Once considered beyond the responsibility of the classroom teacher, Kentucky’s Learning Goals 3 and 4 highlight the importance of children’s social/ emotional growth to learning.

KENTUCKY LEARNING GOAL 3: SELF-SUFFICIENCY

1. Students demonstrate growth in a positive self-concept
2. Students demonstrate the ability to be adaptable and flexible.
4. Students demonstrate the ability to learn on one’s own.

KENTUCKY LEARNING GOAL 4: RESPONSIBLE GROUP MEMBERSHIP

1. Students effectively use interpersonal skills.
2. Students use productive team member skills.
3. Students individually demonstrate a consistent, responsive, caring behavior.
4. Students demonstrate the ability to accept the rights and responsibilities for self and others.
5. Students demonstrate an understanding, appreciation, and sensitivity to a multicultural and world view.
6. Students demonstrate an open mind to alternative perspectives.

THE SOCIAL/EMOTIONAL ENVIRONMENT
AN ANALOGY

You may be asking yourself at this point, “What exactly is a social/ emotional environment?” The following scenario addresses this issue.

Remember the last time you visited the dentist? How did you feel? Were you apprehensive? Did old memories of past visits seem to drive the pit of your stomach up into the area of your throat? Did the very air of the waiting room carry the peppermint scent of pain? Or, on the
other hand, did the friendly smile and chit chat of the receptionist make you feel relaxed? Did the soft music, comfortable chairs, and yes, the six month old issue of People magazine featuring the antics of Di and Charles soothe your fears?

The physical environment of this scenario (a typical dentist’s office) is identical for all patients. The social/emotional environment, on the other hand, may be very different depending upon the individual. “It” (the social/emotional environment) is that intangible something - a feeling - that has the ability to make us feel good about ourselves or bad. In contrast to the physical environment, the social/emotional environment cannot be seen or touched, but it nevertheless exerts a powerful influence over our actions. For this reason, the social/emotional environment, even more than the physical environment, may determine the success or failure of a primary program.

In the introduction of this section, we noted that the social/emotional environments of the primary classrooms described in Chapter 4 were markedly similar. A feeling of empowerment; a spirit of cooperation, not competition; and a willingness to take risks were among the most important characteristics that students in these classrooms shared.

The remainder of this chapter describes a variety of strategies that foster the growth of these types of behaviors. For the sake of organization and economy, strategies are listed only once and under only one category. Our intent is not to imply that these are the only strategies that are appropriate or that a given strategy may not be just as useful in another category. Our goal is to provide you with a variety of strategies from which you may select, add to, and adapt for use in your classroom.
A social curriculum that empowers students to learn takes time.

PUTTING THEORY TO WORK

STUDENT EMPOWERMENT

The primary school is based on the belief that children are responsible for their own learning. If students are given this responsibility, they must also be provided with the "tools" that will enable them to become self-sufficient learners. It is, therefore, the teacher's duty to teach students a variety of strategies, representing both the affective and cognitive domains, that will empower them to learn.

1. Teaching Strategy: Taking the Time

A social curriculum that empowers the student to learn takes time...time to introduce strategies that help students work independently...time to discuss problems arising in cooperative learning groups...and time to share frustrations and accomplishments relating to personal and academic endeavors. For this reason, teachers must weave into their curriculum daily opportunities to address the social and emotional needs of the students.

Where do teachers find the time to teach social skills in a schedule that is already bursting at the seams? The first step is the realization that a social curriculum is an integral and legitimate part of the primary school curriculum. Having acknowledged this fact, the rest is a matter of priorities. Sound easy? No, it is not. But Ruthie Adams, a primary teacher at Garth Elementary School, provides sound advice when it comes to implementing this difficult stage, "I had to take a good, hard look at what I was doing and to prioritize those activities that I thought were most important. The hardest part was letting go."
2. Teaching Strategy: Discipline as Learning

The word, "discipline," is derived from the Latin noun, "learning." Unfortunately, the evolutionary process of language has transformed what was originally a positive concept associated with the act of learning into the negative notion of punishment. In her book, *Teaching Children to Care*, Ruth Charney urges teachers to put the positive back into discipline. To achieve this goal, Ms. Charney recommends the systematic teaching of discipline based on two basic concepts, 1) creation of self-control and 2) creation of community.

The first day of school is not too soon to begin this type of program. Both a sense of community and a sense of self-control can be achieved through the process of creating the class rules that will govern behavior and learning throughout the upcoming year. By involving children in this process, teachers send the message to students, "We are in this together and your ideas count." Furthermore, students who have had a hand in the establishment of rules are much more likely to understand and abide by the rules they develop.

Jacqueline Vance, assistant director at Model Laboratory School, notes that many of her teachers are moving away from long lists of specific rules. Instead, teachers are finding that four to six fundamental rules, used consistently, are more effective. A practical strategy for arriving at these key rules is the use of a semantic map. Listed below is a description of this process.

1. Ask students to brainstorm a number of rules that they feel will facilitate learning within the classroom. Depending on the students' experiences with cooperative groups, this first step may take place in small groups that ultimately report findings to the whole group or may be completed initially as a whole group.

   **Important:** Include all suggestions during brainstorming. Later, as ideas are combined and discussed, inappropriate suggestions will disappear.
2. Explain to students that a long list of rules is often difficult to remember and therefore, difficult to follow. Ask the students to look for similarities among suggestions; group the suggestions that are related. For example, the rule, “Do not take another person’s book.” is very similar to “Do not mess up someone else’s paper.” Both concepts deal with respect of one another’s rights.

3. Continue this process until four to six groups of rules are achieved.

4. Discuss and develop a general rule that characterizes each group. A general rule for the previous example might be, “Do not interfere with other students’ rights.”

5. **Finally and most importantly, change the negatives to positives.** Instead of a list of “DO NOT’s,” make a list of “DO’s.” For instance, change the previous example to, “Do respect the rights of others.” By working from the concrete (“Do not take my pencil.”) to the abstract (“Do respect the rights of others”) students are able to understand the reasoning behind rules.

Activities such as this give students opportunities to practice setting and adhering to limits, an integral part of becoming a self-motivated and responsible learner. They also provide practice in consensus building and responsible group membership.

3. **Teaching Strategy: Positive Discipline**

One goal of the primary teacher is to help students become aware of and learn to control their own behavior. Negative forms of control (threats or withholding love or approval) make children aware of inappropriate behavior, but they do not make them responsible for their own actions. In fact, such forms of discipline are often counterproductive because they attack children’s self-esteem. In an
attempt to regain lost self-esteem, children often resort to unproductive, defensive actions (anger, tears, and/or an “I don’t care” attitude) that diminish the probability of achieving the goals of awareness and self-control. Negative forms of discipline may also negatively influence learning by inhibiting spontaneity and risk-taking behaviors.

Positive discipline emphasizes the importance of catching children in the act of “doing right.” Praise, rewards, and reason are forms of positive discipline. Through the consistent use of these actions, the teacher focuses children’s attention on appropriate behaviors thereby increasing the likelihood of their reoccurrence.

It is also important to note that too much of a good thing can be counterproductive. Praise is no exception. Praise should be specific and natural. Global praise (“You’re a good boy.”) used indiscriminately soon becomes meaningless. Examples of specific praise include, “The description of your best friend Sam was so detailed I feel like I know and like him too.” or “Your comment about the way you felt when you were lost helped me understand the story better.” Such comments go beyond hollow platitudes and demonstrate genuine interest in the student’s behavior and achievements.

4. Teaching Strategy: Conflict Resolution

Although skillful classroom management reduces the potential for conflict, it is nevertheless a part of every classroom and for that matter, life in general. For this reason, it is important that children learn to resolve conflict both on their own and without violence.

Modeling is perhaps the most effective and simplest strategy to use when teaching conflict resolution. As William Kreidler reminds us in his book, Elementary Perspectives 1: Teaching Concepts of Peace and Conflict, children are often much more attune to our actions than our words. It is, therefore, important that we show children through our own behavior the type of behavior we want them to exhibit. If we want children to listen objectively, to look at problems from more than one perspective, and to empathize with the needs and concerns of others, then we, as teachers, must first demonstrate to children their importance.
Does this mean that teachers should no longer take charge of their classrooms? The answer is an emphatic, “No!” Establishment of a caring environment, where the rights and feelings of children are respected, often requires teachers to set limits and when appropriate to make arbitrary decisions. It also requires teachers to address all types of conflict (student to student conflict and student to teacher conflict) from a positive stance. Steps for achieving this goal include: 1) acknowledging that conflict is an inevitable part of life, 2) modeling appropriate strategies for resolving conflict peacefully, and 3) discussing the consequences of using violence as a means of settling conflict.

Kreidler describes the following set of rules to use in conflict resolution:

- One person talks at a time. Let people finish what they say. (If necessary, use a prop such as holding a feather or ball to indicate whose turn it is to speak.)
- Respect what others say. Don’t laugh or ridicule.
- Say what has happened to you or what you think. Talk from your own perspective.

5. Teaching Strategy: Self-Assessment (Last but not least!)

The ability to analyze and evaluate one’s own work is the cornerstone of empowerment. To deny this right to children makes a mockery of the concept, “Children are responsible for their own learning.” It is, therefore, the teacher’s responsibility to teach children of all ages self-assessment strategies, to provide frequent opportunities to practice these strategies, and to encourage children to make self-assessment a natural and regular part of learning. Chapter 7 of this book provides a wide array of self-assessment techniques that are appropriate for use with primary age children.
Employers often complain, "Students graduating from secondary schools and colleges just do not know how to work together." This fact is not surprising if one considers the instructional framework traditionally used by schools. With the exception of participation in team sports, students spend the major part of their time working independently or under the strict supervision of an adult (teacher, aide, or volunteer). They have little practice working with a group of peers and even less instruction in the skills that support effective group participation.

In contrast to traditional methods of instruction, the primary school, like the workplace, recognizes the importance of working together to reach a common goal. Cooperative learning represents one set of strategies for helping children work effectively in groups. These strategies are particularly compatible with the primary school setting because:

- Learning is child directed.
- Learning is active and takes place in small groups.
- Diversity (ability, age, and/or interests) within groups is considered an asset.
- Students are accountable as a group and as an individual.
- Responsible group membership is emphasized.
- Social, emotional, and academic needs are addressed in the context of working toward a common goal.

1. Teaching Strategy: Cooperative Learning

Cooperative Learning is defined by Lyman and Foyle as a teaching methodology that uses small group learning activities to promote positive group interaction and academic learning. It is a set of instructional methods in which students work in small, mixed ability learning teams. The students are responsible not only for learning the material themselves, but also for helping their teammates learn the materials. The social or affective
The social outcomes of learning are often just as important as the academic or cognitive outcomes of learning.

Cooperative Learning involves structured activity and differs from less formal groupings of children that are formed spontaneously or assigned by the teacher. These informal groupings often do not accomplish the desired level of cooperation, as students need instruction specifically designed to help them develop the skills needed to work cooperatively and the time and opportunity to practice these skills.

A number of Cooperative Learning techniques have been identified by researchers, including STAD (Student Teams, Achievement Divisions), TGT (Teams-Games-Tournaments), Learning Together, Group Investigations, Jigsaw, and Think-Pair-Share. The following sources provide detailed descriptions of these techniques and research regarding their effectiveness.

Videos:
“Cooperative Learning I and II,” featuring Nancy Whitlock; a set of videos produced by and available through Kentucky Educational Television

Books:
Cooperative Learning Lessons for Little Ones by Lorna Curran, Resources For Teachers (publisher)

Cooperative Learning in the Early Childhood Classroom by Harvey Foyle, Lawrence Lyman and Sandra Thies, A National Education Association Publication

Characteristics of Cooperative Learning

Although each Cooperative Learning approach is different, they share many characteristics in common. This section outlines some of these features.
Cooperative Learning is one strategy for helping children to work in groups. It is not the only strategy. Other grouping strategies (to name a few) include literature circles, buddy reading, and peer tutoring. Although these strategies are grouping strategies, they are not cooperative learning strategies. The act of grouping students does not in and of itself make an activity a cooperative learning strategy.

Foyle and Lyman identify some basic steps in successful implementation of any Cooperative Learning technique:

1. Identify the content to be taught and the criteria for mastery.
2. Identify the Cooperative Learning technique that would best accomplish the teaching purpose and the appropriate group size.
3. Assign students to groups. Heterogeneous groups are most successful since student differences make the groups work better.
4. Arrange the classroom to facilitate group interaction.
5. Teach (or review) the group techniques needed to make the group run smoothly.
6. Communicate the purpose of the lesson, the expectations for the students, and the time line.
7. Present initial material as appropriate.
8. Monitor student interaction and provide assistance where necessary. Review group process skills as needed.
9. Evaluate both individual and group outcomes.
10. Recognize group achievements.

Cooperative Learning is a structured activity. Regardless of the approach, all cooperative learning strategies share the following characteristics.
Positive Interdependence: If students are to function effectively as a group, they must first understand that they need one another in order to be successful. Phrases, such as "pulling together" or "sink or swim together" are often used to describe this type of positive interdependence. Some ways to create this feeling are through the establishment of: 1) mutual goals, 2) joint rewards, 3) shared materials and information, and 4) assigned roles.

Face to Face Interaction: Cooperative learning recognizes the importance of verbal exchanges (interaction) to learning. Strategies, such as oral summarizing, giving and receiving explanations, and elaborating (relating what is being learned to previous learning) are examples of the types of verbal exchanges that are taught to children for use in cooperative groups.

Individual Accountability: Cooperative learning groups are not successful unless every member of the group has learned the material or has helped with and understood the assignment. Examples of ways to assess individual progress may include formal methods of evaluation, such as an individual exam, or informal methods, such as conferencing or discussion. Whatever the form that individual accountability takes, it is important that individual accountability be used as a tool for supporting individual growth not as a punishment or threat.

Interpersonal and Small Group Skills: Because of the structured nature of cooperative learning, it requires that participants possess specific social skills. Communication, leadership, trust, decision making, and conflict management are examples of the types of social skills that children need to know. It is important that teachers understand that students do not come to school with knowledge of these skills, and it is the responsibility of the teacher to teach these skills.

Group Processing: Group processing is a form of self-evaluation. The basic difference between group processing and other forms of assessment is that group processing is an evaluation of how well the group functioned. It is not an assessment of the individual's or group's product (i.e., knowledge of subject content or quality
of a report). As in the case of interpersonal and small group skills, students must be taught strategies for assessing the effectiveness of their group as well as strategies for improving group performance.

Cooperative Learning is based on specific social skills that must be taught to students. Teachers should not assume that students intuitively possess the social and management skills that are necessary to work successfully in groups. In the early stages of implementation, the major focus of instruction should be on acquisition of the skills that support cooperative learning. Teachers should select one skill, such as “making eye contact,” and introduce that skill to the whole class. Modeling and role playing are two effective strategies that the teacher may use at this level. After the introduction, students should be given opportunities to use the skill in a group situation. At this stage, Lyman and Foyle recommend that teachers, “Think big...Start small.” They suggest grouping children initially into “pairs” or “buddies.” As students gain experience with a particular skill, groupings may be expanded by combining two groups of pairs. Finally, students need feedback from the teacher and one another regarding the success of their efforts. This final “debriefing” stage, provides the teacher and students with an opportunity to discuss questions or problems related to the activity and propose suggestions for improving future group interactions.

Cooperative Learning is a strategy that emphasizes both individual and group accountability. Perhaps the most common complaint that is voiced against cooperative learning is it provides a “free ride” for many group members. Blame for this weakness should not, however, be placed on the architects of this strategy but on its practitioners. Individual accountability is an integral and essential part of cooperative learning. No free rides allowed!

The Teacher’s Role.

Paige Carney, enthusiastic proponent of cooperative learning in the primary setting, points out that the role of the teacher is often misunderstood. Frequently, teachers feel that direct instruction may not be used in the cooperative learning setting. This is not true. Ms. Carney notes that the real crux of this issue is the appropriate use of
The goal of the primary teacher is to establish a climate where children feel free to experiment and take risks as they formulate and test hypotheses.

direct instruction. She finds direct instruction to be most useful at the beginning and the end of cooperative learning activities. For example, Ms. Carney often prepares students for an activity by teaching a specific skill or introducing essential content information. Later, near the conclusion of group processing, she frequently chooses direct instruction as an effective method of highlighting key concepts and drawing the activity to a close.

**RISK TAKING**

In the first chapter of this book, we discussed several beliefs related to learning. Among these beliefs was the concept, “Children actively construct meaning from the world around them.” This type of meaning making is based on a cyclical process where children: 1) make a hypothesis, 2) test the hypothesis, and 3) finally, adjust or make a new hypothesis according to the feedback received. This entire process is dependent, however, on the student’s willingness to take an initial risk (make the initial hypotheses).

Teachers encourage this type of risk taking by developing a learning environment that: 1) acknowledges risk taking as an integral part of the learning process, 2) provides students with daily opportunities to take risks, and 3) helps children understand that “mistakes,” better termed “approximations,” are an integral part of learning. Establishing routines, modeling, and guided discovery are three strategies that teachers may use to foster risk taking.

1. Teaching Strategy: Establishing Routines - The Morning Meeting

Although we often lament the humdrum and boring nature of routine, it adds stability to our lives and often makes us feel safe. The very predictability of routine assures us that we are, after all, in control. Because risk taking requires confidence and a feeling of security, the institution of classroom routines proves to be a simple and practical means of fostering risk taking behavior. Classroom routine enables students to try something new, to take a chance, and to accept the risks inherent in learning.
In her book, *Teaching Children to Care*, Ruth Carney emphasizes the important contribution that morning rituals, such as greetings, sharing time, poems, songs, and classroom news, play in preparing children to learn. Dubbed the morning meeting, this period is a time when the children and teacher come together as a whole. Although specific activities will vary according to the group, the goal of this gathering is to provide children with a feeling of solidarity that will support them as they undertake individual tasks.

The morning meeting also provides the teacher and students with an opportunity to address social issues (e.g., working cooperatively, respecting one another's rights, and acting as a responsible group member) and emotional issues (e.g., helping ourselves feel good and helping others feel good). Through a combination of discussion and role playing, students and teachers can explore alternative actions and potential solutions to these complex issues.

2. Teaching Strategy: Modeling

The strategy, "modeling," is based on the principle that actions speak louder than words. A primary advantage of this strategy is that it provides children with the opportunity to not only "see" the act performed by an experienced practitioner but to hear an explanation of the thought processes behind it. Although modeling may be used to demonstrate concepts in both the affective and cognitive domains, it is a particularly effective strategy for use in the affective domain because of its flexibility and ease of implementation. Little more is needed in the way of materials than a teacher, a student, and time. It may be used effectively with one student, a small group, or the entire class; and it may be used as a part of a planned demonstration or spontaneously.
If you have never used modeling or have used it solely to introduce or reinforce cognitive skills (e.g., demonstrating the use of context clues to determine the meaning of a word or the use of a cover illustration to predict the subject of a story), modeling an abstract concept, such as risktaking, may leave you feeling a bit confused or uneasy. One way to begin is to share your thoughts and feelings concerning risktaking. The next time you try a new strategy or activity with the children, take time to discuss with them how you felt. Share your feelings of uncertainty or confusion. More importantly, do not stop with an exchange of feelings but provide concrete ideas for coping with the frustration and anxiety that often accompany new endeavors. Such demonstrations are not only simple but effective ways to say, "I understand how you feel, but I know you can do it."

3. Teaching Strategy: Guided Discovery

Students are more likely to take risks themselves if they are supported in their endeavors by someone who is both knowledgeable and trustworthy. The term, "facilitator," although a bit overused - best describes the role of teachers as they "guide" children in self discovery or meaning making.

The following are suggestions to assist teachers in the creation of a learning environment that encourages risktaking.

- Provide a structure within which students can make choices regarding their learning activities.
- Give students many opportunities to practice making choices and risk-taking.
- Structure learning activities in a manner that results in many small successes and failures in contrast to a single outcome.
- Provide support when needed. Teach skills/strategies; pose open ended questions that encourage students to resolve problems themselves.
A FINAL NOTE: CHILDREN’S LITERATURE

Children’s literature is a valuable resource when developing the social/emotional climate of the classroom because it touches both the heart and the mind. Whether the subject be risktaking, empowerment, cooperation, or a myriad of other social/emotional issues, children’s literature provides students with a common forum for discussing problems. Best of all, within the pages of books, they can “experience” diverse feelings - the exaltation of being first, the pain of losing - without fear or risk.

Your best resource for books on an assortment of topics is your library/media specialist. Ask your librarian to recommend books for reading aloud and for individual student reading. She can also provide you with a variety of bibliographies of materials designed to address these issues.

SUMMARY

The success of the primary classroom is dependent upon the creation of a learning environment that addresses both the academic and social/emotional needs of the child. Once considered beyond the domain of the classroom teacher, Learning Goals 3 and 4 of K.E.R.A acknowledge the importance of children’s social/emotional development and make schools and teachers accountable for its growth.

Primary teachers realize that a positive social/emotional environment can be a constructive force for learning; whereas, a negative social/emotional environment will have an adverse effect on student learning. Therefore, the challenge for teachers is to identify and foster those characteristics in the social/emotional environment that promote learning and to eradicate those characteristics that are detrimental to learning.
REFERENCES


5. INTEGRATING THE CURRICULUM

SO - WHAT’S NEW?

The other day in a workshop session on integrated instruction, an experienced teacher complained, “So - what’s new about integrated instruction? I learned to use units in my teacher education program during the sixties.” She has a good point. Many teachers have taught units on various topics for years. However, many of these units were of brief duration and limited interest; they focused on a very narrow topic, such as bears, apples, or a holiday, and were thus peripheral to the heart of the curriculum.

For example, in February in a traditional classroom, a second grade teacher might organize a unit around the subject of Valentine’s Day. The children might read a story about Valentine’s Day, listen to the teacher read an account of the way in which Valentine’s Day began, learn a Valentine’s Day song, write and illustrate poems and short stories about their experiences and feelings related to Valentine’s Day, paste their math work on bright red construction paper hearts, and display their work for others to admire.

Although some of these activities might be useful, the valentine unit does not represent the type of integrated instruction we are recommending in Kentucky in that this set of activities is short-term, focuses on a narrow topic, and provides limited opportunities for integrating key curriculum concepts.

On the other hand, Kentucky teachers using theme-centered instruction are planning broad-based units around Kentucky’s Six Learning Goals and 75 Learner Outcomes.

The centerpiece of Kentucky’s education reform effort is its forward-looking vision of what students should know and be able to do as a result of their school experience.
Much more than just the "basic skills" of yesteryear, Goal 1 emphasizes the critical nature of communication and math skills to success in any educational undertaking and throughout life.

This vision has been expressed in the following six goals:

1. **Students are able to apply basic communication and mathematics skills in situations similar to what they will experience in life.**

   Much more than just the “basic skills” of yesteryear, Goal 1 emphasizes the critical nature of communication and math skills to success in any educational undertaking and throughout life. The sixteen Learner Outcomes listed under Goal 1 classify these communication skills into three broad categories - finding and gathering information and ideas by a variety of means, such as reading, listening, and observing; organizing and manipulating information and ideas by classifying, visualizing, and other techniques; and expressing information, ideas, and emotions in a variety of formats, including writing, speaking, and art. Use of these communication and math skills is implicit in the other learning goals.

2. **Students shall develop their abilities to apply core concepts and principles from science, mathematics, social studies, arts and humanities, practical living studies, and vocational studies to what they will encounter in life.**

   “Core concepts and principles” are broad ideas and themes that enable us to organize knowledge and experiences. Application of such concepts as “patterns of change” in science, “democratic principles” in social studies, and “cultural heritage” in the humanities are critical to demonstrate that students truly understand a subject, rather than merely memorizing discrete facts about it. Examining the 38 Learner Outcomes under Goal 2 reveals the many parallel ideas in the disciplines, as well as features that make each discipline unique. It is important to remember that Goal 2 specifies the meaningful application of the core concepts, not just knowing about them.
3. Students shall develop their abilities to become self-sufficient individuals.

While educators have talked for years about developing self-sufficient individuals with life-long learning skills, Goal 3 unequivocally states that this is expected of every Kentucky student. The seven Learner Outcomes under Goal 3 specify the attributes that characterize self-sufficiency. These outcomes are the responsibility of every teacher, administrator, and other school employee to foster and develop. Achieving them for every student will be one of Kentucky's biggest challenges.

4. Students shall develop their ability to become responsible members of a family, work group, or community.

"Cooperative learning" is a major buzz-word in educational circles these days. While cooperative learning strategies are certainly embedded within Goal 4, the six Learner Outcomes emphasize a broad range of characteristics that enable people to live and work together effectively. Goal 4, with its focus on interpersonal interactions, combines with the individual outcomes of Goal 3 to create a picture of well-rounded citizens with the tools to function in a changing society.

5. Students shall develop their abilities to solve problems both in school and in a variety of situations similar to what they will encounter in life.

Problem-solving is often described as "what you do when you don't know what to do." The five Learner Outcomes under Goal 5 address the various purposes and products that problem-solving situations might involve. All the outcomes require students to apply thinking and reasoning skills. While thinking and problem-solving are typically referred to as "higher order" skills, it should not be inferred that working on these Learner Outcomes must wait until the outcomes under Goals 1-4 are achieved. Indeed, the process of trying to solve an engaging problem can provide a motivating context for students to develop these skills.
Very few situations in the "real world" can be conveniently assigned to a single academic discipline.

6. **Students shall develop their abilities to connect and integrate knowledge from all disciplines into their own knowledge bases.**

Goal 6 requires that students think and work across disciplines and that teachers structure learning opportunities to help students explore interdisciplinary linkages. Very few situations in the “real world” can be conveniently assigned to a single academic discipline. For example, the issue of global energy resources has scientific, social, economic, political, and cultural aspects. The three Learner Outcomes under Goal 6 address different strategies for connecting, integrating, and re-examining existing knowledge, as well as for generating new knowledge.

(These descriptions of the learning goals were written by Mike Howard and appeared in the document Kentucky’s Preliminary Curriculum Framework. A complete list of the 75 Learner Outcomes appears in the Appendices.)

**WHAT DOES INTEGRATED INSTRUCTION MEAN?**

Before we look at the ways in which the use of integrated instruction through thematic study facilitates student attainment of the Six Learning Goals and 75 Learner Outcomes, let’s define some terms. What does integrated instruction mean? How does it differ from correlated instruction? What are thematic units?

**Integrated instruction** is a way to organize the curriculum around topics, themes, questions, or problems to capitalize on the natural connections across content areas. When instruction is truly integrated, there are no content boundaries. Students cannot tell when subject areas begin or end. In fact, there are no such beginnings and endings as students investigate a topic from various perspectives.

This differs from **correlated instruction** in which discrete subject areas are organized around a common theme. For example, students might be studying Greek myths. In language arts, they might read the myths and try their hands at writing a modern myth. In social
studies, they might study the history of Greece at the time the myths were created. In art, they might study the architecture of the period. In physical education class, they might play the games and participate in the events of the Olympics. The teacher might mention the connections across content areas, but still the subject matter areas are kept distinct.

In integrated instruction, however, subject matter areas are subordinated to the theme, question, or project that provides the focus of the thematic unit. Other requisite characteristics of effective thematic instruction are summarized below in the handout developed by Virginia Atwood and Peter Winograd in the primary methods block at the University of Kentucky.

### WHAT MAKES A THEMATIC UNIT

A THEMATIC UNIT

**THEMATIC UNITS SHOULD:**

- foster integration
- be worthwhile
- be authentic
- be broad
- encourage diversity
- encourage independent thinking
- encourage active investigation
- provide direct experiences
- balance child-initiated and teacher-initiated activities
- use flexible grouping
- value questions
- encourage multiple ways of representing knowledge
- provide extensive opportunities for social interactions
- emphasize depth of understanding
- utilize a variety of teaching strategies

**NOT:**

- focus on discrete skills or one content area
- be trivial
- be contrived
- be narrow
- not uniformity
- not conformity
- not passive learning
- not just symbolic or abstract learning
- not be totally teacher directed
- not solely whole-class or independent work
- not answers only
- not just paper and pencil responses
- not limit interactions
- not simple coverage of content
- not simple lecture or textbooks

- Atwood & Winograd (1991)
UNIT THEMES WITH VARYING POTENTIAL

Many primary teachers have worked long hours to develop theme centered units that are more characteristic of the traditional elementary school. Many of these themes are short-term and narrowly focused rather than the rich, broad-based themes called for by KERA. The work that went into these units need not be wasted, however, as many of the activities will fit within the broad, long-term units. The following chart depicts the relationship among three types of units: Broad, Long-Term, Broad, Medium-Term; and Narrow, Short-Term.

<table>
<thead>
<tr>
<th>UNIT THEMES WITH VARYING POTENTIAL</th>
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<tbody>
<tr>
<td>BROAD LONG-TERM</td>
</tr>
<tr>
<td>Relationships</td>
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<tr>
<td>Environment</td>
</tr>
<tr>
<td>Change</td>
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<td>Movement</td>
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<td>Structure</td>
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<td>Patterns</td>
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<td>Diversity</td>
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<td>Systems</td>
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You will notice that the short-term units may be nested within the broad, medium and long term units. For example, the unit on Whales fits logically within a unit on Endangered Species and/or Preserving the Environment. The key is to examine the core concepts to see where your existing units fit in.

It’s also important to note that there may be times when a narrow, short-term unit is appropriate. For example, the unit Beverly Wells did on the inauguration was timely and of high interest to the children. Whenever the children’s interests or current events lead to a short term study of some topic, teachers should capitalize on the opportunity without feeling guilty that it isn’t part of a long-term unit.
Using the example of a thematic unit investigating the effects of factory emissions on Lake Cumberland, we can see how the theme provides a context within which the six learning goals can be taught.

**Goal 1. Basic Communication and Mathematics Skills.** The students are able to apply basic communication and mathematics skills to the solution of a real-life problem. Obviously, they must gather information and ideas through **observing, reading, and listening**. They must organize this information and present it to others. Mathematics skills, such as **quantifying**, **computing**, and **measuring**, are used to figure out what effects a certain amount of emissions would have and the loss of income to the region if the plant was closed.

**Goal 2. Core Concepts and Principles.** In terms of the core concepts of science, students would need to actually apply **scientific** skills to study the problem of how to dispose of factory wastes; they would need to identify the affected **systems**, subsystems, and their **interactions**; and they might use **models and scales** to predict the behavior of living things in the lake. In terms of the core concepts of mathematics, students would apply **number concepts**, **mathematical procedures**, **measurement concepts**, and **change concepts** as they tried to determine the effects of various amounts of waste on the water in the lake.

Several core concepts of the social studies would be involved in this unit. Students would recognize and apply the democratic principles of **justice** and **responsibility** to this complex situation; they would learn a bit about how **government** works and the issues of authority, power, civic action, and rights and responsibilities. They would make **economic decisions** and study the **geographic**
interaction between people and their surroundings and take actions that reflect responsibility for the environment. They would recognize continuity and change in historical events, conditions and trends in order to make decisions for a better future.

In terms of the arts and practical living, students would create products and make presentations that convey concepts and feelings about the effects of pollution on the lake and would demonstrate skills in achieving physical wellness and in assessing health systems that promote healthy living for citizens.

Goal 3. Self-sufficiency. The process of solving a real problem such as lake pollution is a perfect context within which to develop life-long learning skills. As students work to define and solve the problem, they are required to be resourceful and creative, to be adaptable and flexible, and to learn on their own.

Goal 4. Group Membership Skills. As students work with classmates to find the solution to complex problems like those they will encounter outside of school, they must learn to use interpersonal skills and productive team membership skills; they learn caring behavior and to accept the rights and responsibilities for self and others.

Goal 5. Problem-solving. The essence of a unit such as the one on lake pollution is problem-solving. As they strive to develop solutions to the problems of factory emissions, they must use problem-solving and decision making processes. They must employ critical thinking skills and creative thinking skills to develop constructive ideas about ways to solve the problem.

Goal 6. Integration of Knowledge. When teachers organize the curriculum around thematic studies, problems, and questions, students are required to address situations from multiple per-
spectives. Students must use what they already know to acquire new knowledge and skills and to interpret new experiences.

As indicated by the lake pollution example, a thematic unit is based on a topic, idea, question, or problem that relates to several content areas and serves as a catalyst for developing the concepts, generalizations, skills, and attitudes that comprise the Six Learning Goals of the primary school program in Kentucky.

WHY USE INTEGRATED INSTRUCTION?

Aside from the fact that thematic studies provide the ideal context within which to achieve Kentucky’s Six Learning Goals and 75 Learner Outcomes, there are additional reasons to integrate instruction.

LEARNING THAT IS INTEGRATED AROUND REAL LIFE PROBLEMS IS MORE MEANINGFUL TO THE PRIMARY SCHOOL CHILD.

As we discussed in Chapter One, one of the basic motivations for human learning is the desire to make sense of the world. When thematic units are organized around real problems to solve, students become active, empowered learners who pursue the knowledge and information they need to solve the problem. Connecting knowledge to the solution of real life problems makes learning meaningful. Students can see a reason to study science if that knowledge is necessary to discover the effects of pollutants from a local factory on their own drinking water.

As students work on meaningful projects related to their own lives, their learning has horizontal relevance; that is, the things they are learning enable them to solve current real life problems that exist within the classroom and school and beyond the walls of the school in their own community, state, nation, and even in the larger world. Contrast this with the vertical relevance of the traditional graded curriculum in which each skill or subskill is learned primarily because it is needed for success in the next level or grade. It may or may not
have any relevance to the students' interests and needs to solve real life problems.

Primary teachers in Kentucky frequently report that they are receiving pressure from upper grade teachers who complain that the children who arrive in their classrooms are unable or unwilling to sit at their desks and complete worksheets or work alone on tasks. We primary teachers must resist the pressure to succumb to these complaints; it is they who need to reconsider what is important for students, not we. We must continue to stress the horizontal relevance of a meaningful, activity oriented curriculum rather than the vertical relevance that would prepare students to progress passively through a lock step curriculum.

INTEGRATED LEARNING ALLOWS FOR DIFFERENCES IN LEARNING RATES, STYLES, EXPERIENCES, AND INTERESTS

As children engage in thematic units, they select from many choices about how to pursue their learning. They may select one aspect of a topic in which to become an expert. They may choose to explore that topic in various ways. They may read about it in a variety of books, magazines, encyclopedia, etc. They may interview someone to find out more about the topic. They might watch a video or filmstrip on the topic or visit a museum where artifacts are displayed.

Once they have gathered the information they need, they also select from a variety of optional ways of sharing what they have learned with their classmates. Some might choose to write and illustrate a book on the topic; while another child might prefer to present the information in an oral report. A small group might make a video or an audio tape recording. Another might make a poster, paint a mural or write a song. But children are frequently allowed to choose how
they learn and how they express what they learn. This takes into account Howard Gardner's notions of multiple intelligences as the children use their preferred style of learning.

When students are allowed to apply their skills to project work, they may select tasks from a variety of levels without fear that tackling a difficult task will lead to failure. At times they may select an easy task, at other times a challenging one. This ability to select a mix of levels of task difficulty enables children to avoid both the excessive stress of working at the upper levels of their ability at all times or the boredom that results from a constant diet of unchallenging tasks.

INTEGRATED INSTRUCTION CAPITALIZES ON INTRINSIC MOTIVATION AND REDUCES THE NEED FOR EXTRINSIC REWARDS

Katz and Chard define interest as "the disposition to pursue an activity or goal in the absence of expected rewards" or "the capacity to lose oneself within an activity." This type of interest is common to the preschooler who is self selecting the activities in which he or she participates. Intrinsic interest is rare, however, in the traditional elementary classroom in which children are asked to complete academic exercises, drills, and worksheets that are unrelated to their own experiences. These exercises are usually presented as one-shot tasks to be completed within a short period of time and rarely lead to sustained effort or continuing involvement.

Project work, on the other hand, is sufficiently intriguing and engaging to children to encourage long term, sustained involvement. Such long term, sustained involvement requires large blocks of time and can be threatened by frequent interruptions or what Donald Graves calls the "cha-cha-cha" curriculum in which every fifteen minutes students are asked to change activities and move on to a new task.

Surprisingly, intrinsic involvement and sustained effort can also be threatened by giving children extrinsic rewards. Contrary to the commonly held belief that people perform better when rewards are given, research on human motivation has shown that although the target behavior increases during the reward period, participation in an
activity is actually reduced after rewards have been given and then removed.

For example, when children are offered rewards for reading, they will read more books during the reward period but then read fewer books after the rewards are withdrawn than they did before the rewards were offered. Thus, the long term effect of extrinsically rewarding children for what originally was an intrinsically rewarding activity is to reduce the amount of independent reading.

Another unintended negative effect of extrinsic rewards is to cause people to select easier, less challenging tasks so as to enhance the chance or the frequency of receiving a reward. Over time this could lead to a reduced level of risktaking and challenge-seeking behavior and substantially inhibit children’s intellectual growth.

Reflecting on her previous use of extrinsic rewards, one teacher recently admitted that she now realized that the reason she had to reward children for completing their assignments was that she was asking them to do meaningless, irrelevant tasks. Although this technique works well in the short run to keep children working at discrete, disembedded, decontextualized, and often trivial tasks, the long term effects work against the attainment of the Learner Outcomes in Goal 3 that strive to create life-long learners who are self motivated and desire to learn on their own.

Integrated instruction and project work, on the other hand, capitalizes on the children's own interests in the work itself. When students are self-selecting the questions they want to answer about a given topic, they are driven by their own need to know. This intrinsic need disposes them to exert more effort and to strive for mastery even in the face of difficulty. The willingness to work hard even when confronted by obstacles is one of the desirable Learner Outcomes that leads to self-sufficiency.
INTEGRATED INSTRUCTION ENCOURAGES CHILDREN TO WORK TOGETHER COOPERATIVELY AND AVOIDS THE NEGATIVE EFFECTS OF COMPETITION

In traditional schools where children are grouped by age, there is a tendency to expect all children to be equally successful at the same tasks. This tends to create a competitive atmosphere in which students compete to be the most successful at the task or the one to complete it first. In such an atmosphere students work against one another because the probability of one student's success is reduced by the presence of other capable students. On the other hand, in a cooperative learning climate, the probability of being successful is enhanced by the presence of other capable classmates. The opportunity to engage in group projects during integrated instruction is more apt to lead to a cooperative environment in which students are working together to solve a problem or complete a task.

It is also important to note that in project work there are opportunities for students to engage in individual, self-selected activities in which their success is unaffected by the capabilities of others. When students feel that they are only competing with themselves and have only themselves to please by putting forth their own best effort, they are able to avoid the negative effects of competition.

The effects of competition are potentially very harmful, especially for the students who rarely win. If competition occurs in a classroom of 24 children and there can only be one winner, then there are 23 losers. We cannot afford to have losers in primary classrooms in which all children are expected to be winners; that is, all children are expected to learn at high levels.

Research indicates that when students repeatedly are unsuccessful in a task compared to the expectations of the teacher or to the accomplishments of peers, they soon opt out of the race. They develop what is called “learned helplessness.” That is, if they don’t try, then they can’t fail. A competitive goal structure in a classroom often creates a group of students who quit trying because they know they can never
compete successfully against more advantaged peers. Eventually these students drop out of school, if not physically then often psychologically.

A competitive goal structure also harms students who always win easily as it fails to instill in them the qualities of persistence and challenge-seeking. They develop the tendency to select simple tasks that assure that they win rewards and will intentionally avoid risky or challenging tasks.

Aside from the negative effects of competition on students' self-sufficiency and their desire to take risks and accept challenges, competition works against the development of social competence and effective group membership skills. We want students to learn to be helpful, caring, and responsive to the needs and feelings of others. As children work together on projects, they have opportunities to develop these behaviors and to value the contributions of others to the success of the group effort.

**INTEGRATED LEARNING REINFORCES THE NATURAL CONNECTIONS AMONG CONTENT AREAS.**

When students are working on a thematic unit or project, their minds are freed from the constraints of subject boundaries and the natural connections among content areas become evident. One cannot study the environment without looking at the physical, economic, social, and political forces that have contributed to pollution of the environment as well as those forces that must be mobilized in order to slow down this destruction.

The actual problems of our society cannot be solved by approaching a problem from only one perspective. As students choose to become "experts" on one aspect of the problem, they see the need to collaborate with their classmates who are studying other facets. Thus, students must talk to one another; they must discover ways to represent what they know in a variety of ways so that they may share that information with their classmates. The essential role of language is recognized as students read and listen to learn new information, and write and talk to share that information with others.
Theme studies do not necessarily integrate or correlate all content areas; however, they reinforce the natural connections among the disciplines. Sometimes a theme study may not offer enough exposure to certain concepts that must be addressed in the curriculum. Thus, whatever fits naturally is incorporated into theme studies; whatever does not is dealt with separately.

For example, in a study of the environment, students might investigate whales as an endangered species. Within that context, children will study the conditions that nearly led to the extinction of whales. Mathematics may fit naturally as they compare the number of whales at various times in history. However, it would be forcing mathematics if the teacher spent hours cutting out whales for the children to use in counting and learning basic addition and subtraction facts. We should capitalize on natural connections, but not try to force them where they do not exist.

The key here is to look for the natural connections that exist across disciplines. Teachers who use theme studies or thematic units crisscross the curriculum looking for natural connections; they do not force connections in an effort to include all subjects areas in every activity.
The topic should be broad-based and rich enough to enable you to generate activities within which students can acquire the knowledge, skills, dispositions, and attitudes described in the Learner Outcomes.

SEQUENCE FOR PLANNING AND EVALUATING A THEME STUDY

Now that you are convinced that integrated instruction should play a major role in the primary school curriculum, how do you begin? Although there is no one right answer to this question, the following ideas should prove helpful in planning thematic units and project work that will help students attain Kentucky's Six Learning Goals and 75 Learner Outcomes.

SEQUENCE FOR PLANNING AND EVALUATING A THEME STUDY

Step 1 Decide What You Want Your Students To Know and Be Able To Do. Use Kentucky's 75 Learner Outcomes.

Step 2 Select a Theme or Topic relating to the 75 Learner Outcomes

Step 3 Plan and Develop Instructional Activities and Assessment Strategies Use the Curriculum Framework, teachers manuals, and previously developed units.

Step 4 Organize the Learning Environment Develop learning centers Plan movement among centers Plan grouping patterns

Step 5 Implement Selected Theme Study

Step 6 Incorporate Continuous Assessment of Process and Product

Step 7 Refine and Revise the Theme Study Unit

SELECTING A TOPIC

The first thing you need to do is select a topic. The topic should be broad-based and rich enough to enable you to generate activities within which students can acquire the knowledge, skills, dispositions, and attitudes described in the Learner Outcomes. We suggest you begin by looking for natural connections among Kentucky's 75...
Learner Outcomes. These natural connections can become your themes. See suggested steps below:

**CONNECTIONS**

*Looking for natural connections (themes) among Kentucky's 75 Learner Outcomes:*

2. Identify basic skills employed from Goal 1 Basic Communication and Math Skills.
3. Identify personal and group process skills employed from Goal 3 Self-Sufficiency and Goal 4 Responsible Group Membership.
4. Identify the critical thinking and problem-solving skills from Goal 5 Thinking and Problem Solving.
5. Decide from Goal 6 Integration of Knowledge whether students are integrating knowledge from different perspectives and integrating new knowledge with known information.

The core concepts and principles in Goal 2 are a good place to begin as some of the same ideas appear in several content areas. Let's look at an example. In a recent project coordinated by Ron Atwood at the University of Kentucky, several classroom teachers undertook the task of developing thematic units around the six core concepts in science. These pioneers have successfully developed and piloted thematic units on the following core concepts in science:

<table>
<thead>
<tr>
<th>Models and Scale</th>
<th>Patterns</th>
</tr>
</thead>
<tbody>
<tr>
<td>by</td>
<td>by</td>
</tr>
<tr>
<td>Karen Kidwell and Nancy Kesten.</td>
<td>Bonnie Myers, Clark County Schools</td>
</tr>
<tr>
<td>Fayette County Schools</td>
<td>Michele Bennett, Jessamine County Schools</td>
</tr>
<tr>
<td></td>
<td>Susie Nally, Woodford County Schools</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Change Over Time</th>
<th>Systems and Interactions</th>
</tr>
</thead>
<tbody>
<tr>
<td>by</td>
<td>by</td>
</tr>
<tr>
<td>Ruth Daniels and Carol Smith,</td>
<td>Bonnie Embry and Jennifer Wilson,</td>
</tr>
<tr>
<td>Franklin County Schools</td>
<td>Fayette County Schools</td>
</tr>
</tbody>
</table>
Ruth Daniels and Carol Smith started their planning with the science core concept, *change over time*, and developed an integrated thematic unit around that concept. Within that unit, they developed activities that helped students understand changes in the size, capabilities and appearance of students over time; the life cycle of some insects; seasonal changes; political changes, changes in music and food preferences; and the processing of selected raw materials.

As you can see, they were able to capitalize on the interdisciplinary nature of the concept of *change over time*. Mathematics, related children's literature, written reports, creative writing activities, and music and art activities were integral parts of the study. Thus, they were able to promote children's attainment of several of the 75 Learner Outcomes within the context of this one unit. Two of the science outcomes were a major focus:

2.1 Students use appropriate and relevant *scientific skills* to solve specific problems in real-life situations.

2.6 Students complete tasks and/or develop products which identify, describe, and direct *evolutionary change* which has occurred or is occurring around them.

There were also activities that promoted attainment of the following outcomes from goals 1 and 2:

1.1 Students use research tools to locate sources of information and ideas relevant to a specific need or problem.

1.2 Students construct meaning from a variety of print materials for a variety of purposes through reading.
1.5 Students communicate ideas by **quantifying** with whole, rational, real and/or complex numbers.

1.11 Students communicate ideas and information to a variety of audiences for a variety of purposes in a variety of modes through **writing**.

2.8 Students demonstrate understanding of concepts related to mathematical procedures.

2.10 Students demonstrate understanding of **measurement concepts**.

2.20 Students recognize continuity and change in **historical events, conditions, trends, and issues** in order to make decisions for a better future.

2.22 Students create **products and make presentations** that convey concepts and feelings.

If you read through the list of 75 Learner Outcomes, you could doubtless see many others that could be dealt with in the context of this unit on change over time. As we design our theme centered units in Kentucky's new primary schools, we must establish the habit of thinking about the outcomes that will be facilitated by each learning activity.

Another example is the theme study on the core concept of **Patterns** developed by Michele Bennett, Bonnie Myers, and Susie Nally which provides opportunities to work on outcomes in the area of science, mathematics, and social studies that relate directly to Patterns:

2.2 Students identify, compare, and contrast **patterns** and use patterns to understand and interpret past and present events and predict future events.

2.11 Students demonstrate understanding of **change** concepts on patterns and functions.
2.16 Students recognize varying social groupings and institutions and address issues of importance to members of them, including beliefs, customs, norms, roles, equity, order, and change.

Additionally, many of the activities they developed work on other outcomes related to basic skills in Goal 1, other core concepts in Goal 2, self-sufficiency skills in Goal 3, group membership skills in Goal 4, problem solving skills in Goal 5, and knowledge integration in Goal 6.

DEVELOPING INSTRUCTIONAL ACTIVITIES THAT PREPARE STUDENTS FOR KENTUCKY ACCOUNTABILITY MEASURES

Ms. Bennett, Ms. Myers, and Ms. Nally begin the unit with an activity for introducing patterns in which they have students use hand-held magnifying lenses to observe patterns in leaves, quilts, seashells, tree rings, and spider webs. Students record their observations on a sheet entitled “Patterns We Found” and use their observations to

![Patterns We Found Table]

When we looked at quilts we saw:  When we looked at leaves we saw:  When we looked at seashells we saw:  When we looked at tree rings we saw:  When we looked at spider webs we saw:  Other observations:
prepare a brief written or taped report of the observed patterns in each activity for their portfolios.

Fingerprinting activities are another way these teachers use to teach patterns. Students produce thumb prints on a class mastersheet as well as on separate index cards. In a game, a child's card is then placed at a "crime scene" and teams of classmate detectives use hand lenses to compare the print at the scene to the print on the mastersheet in order to solve the crime.

Graphing activities are also done with the individual print cards to make a bar graph depicting how many fingerprints have loops, whorls or arches. The pattern of one class's graph can be compared to that of another class and predictions made about the distribution of types of prints in a third class based on the patterns in the other two classes. Students write summaries of their finger printing activities and are encouraged to read *Nate the Great* books about the boy detective's use of careful observation to solve mysteries.

Students then study patterns of breathing. In the "Huff and Puff" activity, students read *The Three Little Pigs* and the *True Story of the Three Little Pigs* as an introduction. They then test to see how far they can move various objects (cotton ball, marble, pen, paper clip, bottle cap, cheerio, bean, aluminum foil ball, pebbles, rock, etc.) with one breath of air. They observe, record, and discuss some of the factors which determine how far an object is moved by one breath of air.

Small groups of students measure off a distance of three feet on a flat work table surface for testing. Students figure out how many "huffs and puffs" it takes to move the various objects three feet away. They discuss the importance of trying to use the same amount of force and why everyone did not get the same number of puffs. They predict how many breaths it would take to move an untested item the three foot distance and explain the basis for their predictions.
Students could then compare the patterns of two or more versions of *The Three Little Pigs* and then write or tape a version that follows a different pattern.

These sample activities are but a few of the many activities included in the unit. Some of the other activities include making patterned Fruit Loop necklaces or macaroni necklaces, sorting a variety of beans, making fruit kabobs or seed mosaics, predicting and graphing activities with M&M’s, writing poetry of various patterns (haiku, senryu, tanka, cinquain, limerick, and biopoem), reading and writing take-offs on predictable pattern books, playing rhythm games and progressive group games, creating and using codes, weaving, going on environmental pattern hunts, using magnets, charting food chains, and analyzing daily schedules.

You can see how students are working on many of the 75 Learner Outcomes (observing, reading, writing, scientific skills, problem solving processes, oral expression, measurement, computation, and team membership skills) simultaneously as they engage in these intrinsically interesting activities to learn about patterns. It is clear that a rich, broad-based theme built around the core concepts can lead to the generation of an infinite variety of activities in which the outcomes can be developed.
The following Unit Planning Guide may prove helpful as you attempt to include activities from the various content areas and as you check to see whether or not you are preparing students for success on the fourth grade accountability assessments. If, for example, you are able to check off several of the genre which students must include in their writing portfolios during fourth grade, then you can feel certain that you are giving students opportunities throughout the primary school to become familiar with those genre. In your next unit, you will want to make sure that opportunities are built in to work on the other genre. In the area of reading, you will want to ensure that students have opportunities to read all four text types, not just literary and informational. You will also want to address comprehension at the literal, inferential, and critical/evaluative levels, to develop students’ abilities to use a variety of reading strategies and to become metacognitively aware of their strategy use, and to help students develop a positive attitude toward reading.

We primary teachers must constantly remind ourselves that the fourth grade assessments are a reflection of the total primary program not just what is done in fourth grade.

We primary teachers must constantly remind ourselves that the fourth grade assessments are a reflection of the total primary program not just what is done in fourth grade. We are equally responsible for the success or failure of the students with whom we have worked.
It is clear that a rich, broad-based theme built around the core concepts can lead to the generation of an infinite variety of activities in which the outcomes can be developed.

At Wheeler Elementary, each team of primary teachers collaborates to design four broad-based themes for the school year. Working collaboratively to plan the unit reduces the amount of work that individual teachers must do. For the 1992-93 school year, one team focused on the following themes: 1) Celebrate Kentucky and Home; 2) Celebrate your Imagination; 3) Celebrate Our Universe; and 4) Celebrate your Environment. Because the themes are broad, many activities related to various outcomes can be incorporated.

ORGANIZING THE LEARNING ENVIRONMENT

Once you have selected a theme and developed activities that enable students to move toward the 75 Learner Outcomes, you can organize the physical environment of the room to accommodate the activities you have planned. You will need to add some additional materials into some of your permanent centers. For the Patterns Unit we just discussed, you would need to add to the Reading Center versions of *The Three Little Pigs*, factual science books and articles related to air movement patterns and other types of patterns, copies of many patterned books, and poetry anthologies that include examples of the poetry patterns the children will be writing. Your library media specialist can be a big help in locating appropriate materials for your units if you let her or him know in advance.

At Tates Creek Elementary School, the teachers and media specialist expedite their planning by placing a large calendar on the wall in the library. On the calendar the teachers indicate what units they will be working on during a given period of time throughout the year. Special area teachers can then plan related activities and the media specialist can anticipate the needs of students and teachers for materials on a given topic at the appropriate time.
In the Art Center, various shapes of macaroni, varieties of beans and seeds, and materials for weaving would need to be added as well as pictures of quilts and/or examples of quilts.

A special science table on which a three foot length is marked will be needed for the “Huff and Puff” experiment along with all of the items to be tested. In the regular Science Center, you would need magnets, the hand held lenses and the leaves, seashells, quilts, tree rings and spider webs to be examined. Remember students can often be helpful in locating and contributing materials for your various centers. Involve them in some preplanning so that they, too, can find things at home and outside to add to the classroom learning centers.

For some activities you will need to anticipate movement patterns throughout the room. In the fingerprinting detective game, students will be working in teams and moving from “crime scenes” to the large composite fingerprint chart. Wall space will need to be provided for the fingerprint chart depicting relative numbers of whorls, loops and arches.

**INCORPORATE CONTINUOUS ASSESSMENT**

Continuous assessment of both process and product is one of the seven critical attributes of the primary program. Authenticity is also important to worthwhile assessment that aligns with instruction. The most authentic assessment is information the teacher gathers within the context of instruction.

For example, in the Patterns Unit, the teacher will have several products to evaluate, including the recording sheets and written summaries from the “Patterns We Found” and “Huff and Puff” activities, the poetry written using the various poetry patterns, the take-offs written on the pattern books, students’ patterned necklaces, and their weavings. To discover whether students are developing the desired
process skills, attitudes, and dispositions, it will be necessary to observe students at work as they conduct experiments, participate in discussions, make predictions, write their books, and work on individual and group projects. Checklists of desired behaviors can help you systematize your observations (See Chapter #7 on Assessment.)

Another type of authentic assessment that can be particularly informative at the end of the unit and that can help prepare students for the fourth grade accountability measures are performance assessment event tasks. In the Patterns Unit, Ms. Bennett, Ms. Meyers, and Ms. Nally designed several event tasks to assess students’ understanding of the concept of patterns. In one task, students are given a set of objects, some with patterns and some without, and asked to classify them into two groups and explain the rationale for their groupings either orally or in writing. In another performance event task, students are given twenty unifix cubes varying in color and asked to produce a pattern using the cubes and to explain the pattern.

These two examples of performance event tasks indicate that such tasks align with instruction and provide authentic evidence of students’ understanding of a given concept. Furthermore, when students are accustomed to performing event tasks, they will be better prepared and more at ease during the more formal KIRIS event tasks.

**REFINE AND REVISE THE THEME STUDY UNIT**

Once you have used a given unit, you will need to evaluate the success of the unit. Which activities worked to further students' attainment of the outcomes? Which ones did not? How could they be changed? Or should they be replaced? What activities engaged students' interest? Which did not? What new activities will you add? Did you think of any new performance event tasks that would enable you to assess students' understanding in authentic ways?

The following list of criteria may prove helpful as you look back over the experiences that you and your students had during the unit:
CRITERIA FOR APPRAISING THEMATIC UNIT

1. Addresses Learner Outcomes?
2. Substantive? Intellectually rich?
3. Active involvement?
4. Quality literature?
5. Wide variety of data sources?
6. Variety of methods to communicate information?
7. Integration of disciplines?
8. Student choice?
9. Understandable but challenging, interesting, and informative?
10. Variety of evaluation procedures?

SUMMARY

The type of integrated instruction recommended in Kentucky's primary program is much broader and more sophisticated than the narrow, short-term units used by teachers in traditional elementary classrooms. The new theme study is the heart of the curriculum in that it begins with the 75 Learner Outcomes that children are to accomplish and incorporates traditional subject areas into a curriculum designed to achieve those outcomes. It involves in-depth study over extended periods of time and requires long blocks of flexible time in the daily schedule. It recognizes that the most efficient context for human learning is a social context in which students work together to solve real life problems. It capitalizes on the intrinsic motivation of students who are actively engaged in meaningful activities in which they are learning to understand and control the world around them.
REFERENCES


Primary school integrated staff development series. (1992). Frankfort, KY: The Kentucky Department of Education.
A successful primary school rests upon a foundation of developmentally appropriate instructional practices. If teachers are able to design an instructional program that is developmentally appropriate for children, the other six critical attributes can be built upon that strong foundation. As teachers make decisions about developmentally appropriate curricular practices, they need to consider information about how children learn, what should be learned, and when it is best learned. Several beliefs about children and learning undergird these developmentally appropriate practices.

**THEORETICAL UNDERPINNINGS OF DEVELOPMENTALLY APPROPRIATE PRACTICES**

Children construct their own knowledge through active involvement. Based upon the work of the constructivists, notably Jean Piaget, we know that each human being creates his or her own understanding of the world as a result of interactions with people and objects in the environment. No two people construct exactly the same meanings from an event as each individual brings a unique background of knowledge and experience to the situation. Children act upon the world about them even as the world is acting upon them; thus, the meanings they create result from the interaction of their own knowledge and actions with the incoming sensory information and affective responses of other participants.

Active manipulation of the environment is essential for children to construct knowledge. As Dewey pointed out, children learn by doing - by seeing, touching, tasting, smelling, moving, talking, listening, experimenting, choosing, and negotiating.

Children Learn Through Social Interaction. Children learn to do what the significant others in their lives are doing. Children who grow up in the homes of musicians learn to sing or play an instrument; children who grow up in the homes of athletes learn to participate in sports; and children who grow up in the homes of scientists learn to approach the world scientifically.
Lev Vygotsky stresses the role that more competent adults and peers play in the construction of knowledge. In his theory of the "zone of proximal development," Vygotsky points out that what the learner can do today with support from a more accomplished mentor, he or she can perform alone tomorrow. The child learns best when direct interaction with the environment is mediated through social discourse; that is, when the adult or mentor explains the meaning, intent, and purpose of the experience. In primary classrooms, not only teachers, but also peers often play the mentor role as children verbally negotiate the meaning of an experience.

Children learn through play. Play contributes to all aspects of children's development. Psychologists and educators generally agree that play is the primary avenue to young children's learning and development. Although the role of play is celebrated in preschool environments, it is often frowned upon once formal schooling begins. This "Scroogian" attitude toward play in the primary school years has caused us to deprive six, seven, and eight-year-olds of the benefits of the play experience. Large blocks of time for spontaneous play should be provided in the early years of the primary school as play enables children to try out roles, to experiment with language, to build and to explore. Through play, children develop imagination, creativity, and representational thought. Materials for play should be a part of every primary classroom, such as, blocks, dress-up clothes, water tables, sandboxes, household centers, doctor's offices, grocery stores, etc.
Children learn best when they feel psychologically safe and their physical needs are met. Children need to feel that school is a safe place in which the adults will support and protect them. For youngsters who live in threatening or insecure home environments, the opportunity to feel comfortable, happy, and relaxed at school is doubly important. Self-selection, self-evaluation, and risk-taking can only occur when children know that they will not be penalized for poor choices or for making mistakes.

Children cannot learn if their biological needs have not been met. In addition to adequate nutrition, shelter, and basic health care, children need legitimate opportunities to move about as they are unable to sit still and attend to paper and pencil tasks for long periods of time. Thus, they need periods of active play alternated with periods of quiet, restful activity.

Children's learning rates and patterns are variable. Studies of human development indicate that there are universal, predictable stages of growth that children experience as they mature. These predictable changes occur in all domains of development—physical, emotional, social, and cognitive. Knowledge of typical or normative development within the age span of primary school children provides a framework teachers can use to prepare the learning environment and plan appropriate instruction.

However, one of the problems in traditional age-graded schools is that we have operated solely upon this normative definition of developmentally appropriate practice; that is, we have been primarily concerned with age appropriateness or what most children can or cannot do at a given age or stage. Unfortunately, our heavy reliance upon a normative definition of age appropriateness masked our failure to attend to the individual appropriateness of our instructional practice.

Each child is a unique person with an individual pattern and rate of growth, as well as a unique personality, a preferred learning style, and a unique background of experience. All teachers know that even though they have a class in which all of the children are seven years
These differences among and within children are the major reason why multi-age grouping makes sense in the primary school.

old, each of these children is at a different stage of development, physically, emotionally, socially, and cognitively. Even though children pass through the same stages of development, they pass through the stages at a different rate so they may all be at different stages at any one time. Furthermore, a given child may be cognitively more mature but socially less mature than his or her age mates or vice versa.

These differences among and within children are the major reason why multi-age grouping makes sense in the primary school and why teachers who want to design a developmentally appropriate curriculum must not rely solely on a normative definition of age appropriateness but also consider individual appropriateness.

What constitutes individual appropriateness for a given child is also affected by the notion of multiple intelligences. Howard Gardner’s research led him to the theory that human beings have “at least seven different ways of knowing the world.” He defines each of these ways as a separate intelligence.

THE SEVEN INTELLIGENCES

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linguistic</td>
<td>- capacity for language and its uses</td>
</tr>
<tr>
<td>&quot;The Poet&quot;</td>
<td></td>
</tr>
<tr>
<td>Logical-Mathematic</td>
<td>- capacity for reasoning, logic, and problem solving</td>
</tr>
<tr>
<td>&quot;The Scientist&quot;</td>
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</tr>
<tr>
<td>Musical</td>
<td>- ability to discern sounds, melodies, pitches, rhythms, and timing</td>
</tr>
<tr>
<td>&quot;The Composer&quot;</td>
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</tr>
<tr>
<td>Spatial</td>
<td>- ability to imagine sense environmental changes, solves mazes, and interpret locations using maps</td>
</tr>
<tr>
<td>&quot;Sculptor&quot; &amp; &quot;Sailor&quot;</td>
<td></td>
</tr>
<tr>
<td>Bodily-Kinesthetic</td>
<td>- ability to use the body to accomplish complex and intricate activities, or manipulate objects with well-controlled finesse</td>
</tr>
<tr>
<td>&quot;Dancer&quot; or &quot;Athlete&quot;</td>
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</tr>
<tr>
<td>Interpersonal</td>
<td>- ability to understand people’s motivations, as well as skills in leadership, organization, and communication</td>
</tr>
<tr>
<td>&quot;Teacher&quot; or &quot;Salesman&quot;</td>
<td></td>
</tr>
<tr>
<td>Intrapersonal</td>
<td>- ability to recognize their strengths and weaknesses, motivations and aptitudes</td>
</tr>
<tr>
<td>&quot;One with Self-Understanding&quot;</td>
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</tbody>
</table>
Schools have tended to stress only the Linguistic and Logical-Mathematical intelligences to the neglect of the other five. Consequently, those individuals who do not learn best in the linguistic or logical modes may have difficulty succeeding in the traditional classroom.

Furthermore, the neglect of the other modes may have a detrimental effect on all learners in that Gardner estimates that over 70 percent of our mental abilities lie untapped in formal education. Gardner also points out that there may be time restrictions on the development of some intelligences and that failure to develop an aptitude early in life may preclude its development at a later time as the associated synapses may atrophy and prevent us from ever acquiring that dimension.

Loris Malaguzzi, former director of the renowned early childhood education program, in Reggio Emilia, Italy, reminds us: “A school needs to be a place for all children, not based on the idea that they are all the same, but that they are all different.”

In keeping with that philosophy, the Reggio Emilia classrooms employ an activity based curriculum and extensive use of the graphic arts to foster aesthetic awareness, creativity, intellectual growth, and collaboration. In short, these developmentally appropriate classrooms enable students to speak in the “the hundred languages of children”


"A school needs to be a place for all children, not based on the idea that they are all the same, but that they are all different."

The child has
a hundred languages
(and a hundred hundred hundred more)
but they steal ninety-nine.

The school and the culture
separate head from body.
They tell the child:
to think without hands
to do without head
to listen and not to speak
to understand without joy...

They tell the child:
that work and play
reality and fantasy
science and imagination
sky and earth
reason and dream
are things
that do not belong

The child says:
No way. The hundred is there.
DEVELOPMENTALLY APPROPRIATE PRACTICES

As we build a curriculum based upon this theoretical foundation, we should expect to see the following developmentally appropriate practices:

**DEVELOPMENTALLY APPROPRIATE PRACTICES: PRIMARY SCHOOL**

* Integrated curriculum
* Active child involvement, interaction, and exploration
* Use of manipulative/multi-sensory activities
* Balance of teacher-directed and child-initiated activities
* Varied instructional strategies and approaches such as whole language, cooperative learning, peer coaching/tutoring, thematic instruction, projects, learning centers, and independent learning activities, etc.
* Flexible groupings and regroupings for instruction based on interest, learning style, problem solving, skill instruction (short term), reinforcement, random, etc.
* Many opportunities for interaction among peers
* Emphasis on reaching personal goals rather than on competition with peers

Let's look at the ways in which different areas of the primary school curriculum serve as vehicles to implement developmentally appropriate practices.

**SOCIAL STUDIES AS A DEVELOPMENTALLY APPROPRIATE CONTEXT**

In traditional elementary classrooms, social studies instruction was often neglected as teachers spent most of their time teaching the basic skills of language arts and mathematics. Social studies instruction
often consisted of having the children read aloud "round robin" style a few pages from the single social studies textbook, discuss the content, and perhaps write the answers to questions at the end of the chapter.

However, in KERA primary classrooms, attaining the outcomes for social studies will require large blocks of time, more and varied materials, more active involvement by students, and greater integration with other areas of the curriculum. The core concepts for social studies in Learning Goal 2 stress learning about democracy and how it works, learning how to work with diverse ethnic and cultural groups, learning how to make wise economic decisions, and learning how history and geography affect our everyday lives.

The kind of learning we expect from primary students will not occur if schools simply supply isolated facts about the world in separate history, geography, and other social studies classes. "Knowing" is more than remembering discrete facts. These facts must be embedded in a meaningful context if they are to be retained and used in the solution of real life problems. The following chart captures the relationship among the outcomes that need to achieved, the processes that enable students to achieve the outcomes, and the type of context that facilitates attainment of the outcomes.

<table>
<thead>
<tr>
<th>SOCIAL STUDIES PROGRAMS</th>
<th>OUTCOMES</th>
<th>PROCESS</th>
<th>CONTEXT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change Concepts</td>
<td>Active Involvement</td>
<td>Familiar</td>
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<tr>
<td>Data Concepts</td>
<td>Observing</td>
<td>Authentic</td>
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<td>Relevant</td>
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<td>Discussing</td>
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<td>Economic Systems</td>
<td>Debating</td>
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<td>Historical Perspective</td>
<td>Reading</td>
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<tr>
<td>Interpersonal Relationships</td>
<td>Writing</td>
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<td>Cultural Diversity</td>
<td>Computing</td>
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<td>Geography</td>
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<td>Social Systems</td>
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Social studies helps integrate the curriculum. Social studies is at the core of an integrated primary curriculum as it provides powerful themes for study and offers opportunities for children to use basic mathematics and communication skills. This means that topics must be chosen with care. The topics must be rich enough to generate subtopics, activities, and interest. They must be relevant to the needs and interests of children, and there must be resources sufficient to support the study.

Life Stories Unit

One teacher began a thematic unit on Life Stories that provided this kind of rich context for integration. First her students investigated their own life stories. They interviewed parents and grandparents, siblings and friends, and built life-lines. Meanwhile, they read biographies and autobiographies, made comparison charts of other lives, and decided what other lives might be interesting to learn about. Before long the children were interviewing people in the community, charting differences in jobs people chose, holidays and celebrations observed in different generations. They made job descriptions based on their studies and discussed what they might like to do later in their lives.

Soon they moved on to the life stories of other things - cars and planes, buildings, and telephones. Their study took them in many directions, including out into the community. Some of their work was published in the school newsletter. Some was shared during a special program honoring community members for their contributions to the life of the community. Students gave awards to the crossing guard who patrolled the busy street in front of the school, to the bus driver who always had a kind word for the youngest children, for the custodian who found time to congratulate children on projects he noticed in their class - even for the local city councilwoman who had worked to get a traffic light near the school.

In all these activities, the language arts are integrated in a variety of ways. Children read literature related to social themes; use non-fiction to investigate the social world; write expressive, informative, and persuasive literature; speak and write for a number of purposes.
and audiences; and listen for direction, information and aesthetic appreciation. They use the arts to express what cannot always be expressed in words, to clarify and enrich what they have written, and to provide information about the human experience.

**Children work together in social studies.** Social studies contributes to the development of the social skills in Learning Goal 4 Responsible Group Membership. As children engage in social studies activities and projects, they work in groups, share their findings with others, interview people in the community, and generally participate in “social” study. They negotiate work distribution, learn to compromise and to manage conflict. They also have opportunities to develop the self reliance referred to in Learning Goal 3 as the focus in the classroom shifts from teacher to students.

In short, the practice of democracy begins in classrooms where children live what they are learning and where the practice of democratic principles is essential to the on-going life of the school. The social studies curriculum in primary classrooms helps students live fuller, more productive lives and contribute to making the world a better place to live. A primary classroom provides an ideal laboratory for learning how democracy works when children of various ages and abilities work together on a variety of projects and when teachers and students are both empowered to make decisions about appropriate learning activities.

**Children learn through experience - past and present.** In the past, many people questioned young children's ability to learn about history. However, recent research indicates that even young children have some sense of history and can deal with time and space concepts when these concepts relate to familiar experiences. Children learn best when they can relate a new concept to their own lives, to artifacts they have observed and touched, to trips they have taken, to places they have visited, to stories their parents have told them, or to books that teachers have read to them. They draw on these experiences and observations to help them understand people in other times and places.

In areas in which they have had limited experiences, children may have difficulty understanding abstract concepts. In these areas,
Social studies connects children to the world.

Teachers will need to provide many “hands on” experiences in the classroom as well as opportunities to move outside the walls of the classroom to participate in a variety of experiences.

Journeys Unit

Let’s look at an example of an integrated unit that provides many first hand experiences designed to help children learn about distant times and places. One primary team uses Journeys as a theme and introduces children to the idea of journeying back in time through artifacts (old utensils, tools, and clothing), through literature (George Ella Lyons’ Who Came Down That Road or Ann Turner’s Katie’s Trunk), and through searching for evidence of change over time in their own neighborhood. They pack a trunk of artifacts for future generations, and debate what things would best represent their lives.

Later they take imaginary journeys across long distances to visit other parts of the world. They meet people in their community who have traveled to distant places or who have lived there. They learn to look for these places on a globe and world map, and discuss how long it would take to get there, what kinds of sights one might expect to see, and what sort of games children might play in these places. They read Peter Spiers’ People, and look for evidence of other cultures in their own community (place names, foods, clothes and toys). They read folktales from other countries and compare them with tales told in the United States (Cinderella variants or trickster tales). They find out what their own heritage is, and make “heritage dolls” to represent the various places of their own ancestry. In short, they are immersed in the content of the social studies.

Children learn about their place in the world. Social studies connects children to the world, whether by studying family history, comparing how people live in different environments, or looking at the impact of litter on the neighborhood. It is the link among the many circles of young children’s relationships: between the children and their families, their friends, and their neighborhoods. It helps children discover links between themselves and other cultures, distant countries, and the world beyond.
At Southside Elementary, Susan Watt and Wendy Roark have one long term, broad based theme throughout the entire year. Entitled “There’s No Place Like Home,” this theme focuses on homes of both people and animals. All the other short term themes relate back to the main theme. One short term theme focuses on Egypt, past and present, in which the students are learning about Egyptian homes and the environment in Egypt. One can feel the excitement and see the learning taking place. Mummies are hanging from the ceiling along with maps of Egypt all designed by the students. Students’ learning is summarized on KWL charts around the room answering the following questions:

- What do we Know about Egypt?
- What do we Want to know about Egypt?
- What did we Learn about Egypt?

Children learn to solve real life problems. Social studies provides many opportunities for learners to identify problems they want to solve, conditions they want to understand, or decisions that want to make. They learn to collect and use the data needed to answer their questions, as well as to consider how that data could and should be used, and what difference its use will make to their own lives and to the larger world. Social studies recognizes that information from many disciplines is needed to solve real life problems, such as homelessness and environmental concerns.

Children may begin a study with a concern about homeless families in their town. This leads to finding out more about hunger in their own community and a project to collect food to send to the local food pantry. They learn about nutrition as they try to gather foods for a balanced diet.

Another group of children may begin their study with a concern for beautifying their school environment. They work on cleaning up the playground, planting flowers along the foundations of the school building, and creating a gallery of student art in the front hall. This leads
One group of children solved real life problems in a study that began with a concern for beautifying their school environment.

them outward into searching for beauty in the community, exploring how people in other times and places have tried to beautify their world, and studying art, music, and architecture of different types.

In summary, these activities and theme studies, you can see many examples of developmentally appropriate practices. Instruction is integrated around a common theme. Children are actively involved in asking and answering their own questions and in using multi-sensory materials. Some activities are teacher-directed, but most are child-initiated and involve students in working together with peers on cooperative projects. Instructional strategies are many and varied and students form flexible groups of varying sizes to achieve different purposes. In sum, the social studies provide the ideal context within which to employ developmentally appropriate practices.

SCIENCE AS A DEVELOPMENTALLY APPROPRIATE CONTEXT

Like social studies, science provides many opportunities for integrating the curriculum and for employing other developmentally appropriate practices. In the traditional elementary classroom, science was often neglected and consisted primarily of reading a science textbook and answering a few recall questions. Primary teachers in Kentucky can no longer afford to neglect the teaching of science or to use inadequate methods of teaching science. Reasons include:

- Six of the 75 Learner Outcomes specifically address science and several others can be partially addressed through investigative science instruction.
- The Kentucky assessment system focuses on student performance that requires evidence of understanding and application, not just memorization and recall.
- Science receives major emphasis in the Kentucky assessment system.
- Excellence in science and mathematics is a national priority and can only be achieved if science instruction begins early and is high quality.
- Jobs in the twenty-first century will require greater understanding of science.
Determining what and how to teach. Kentucky's new Curriculum Framework allows individual teachers and schools a great deal of discretion in what and how to teach. As long as the students are achieving the Learner Outcomes related to the science core concepts and the science process skills, the teacher may decide how and when these outcomes will be addressed. Choices may be made at the local level about what content topics will be used to address these Learner Outcomes. For example, the teacher could decide to study the outcome of patterns in leaves, in sound-making devices, in weather, or in a number of other topics.

With this freedom of choice comes a great deal of responsibility for designing a curriculum in which science is addressed in substantive and developmentally appropriate ways. Teachers can receive guidance from some of the commercially available investigative science instructional programs, such as Science Curriculum Improvement Study (SCIS) and Kentucky ACES. However, these materials will need modification as they were not originally designed for the multi-age, multi-ability classrooms found in Kentucky primary schools.

Clearly a science text series without appropriate concrete instructional materials will be totally inadequate to help students develop the ability to apply their scientific knowledge and skills to the solution of real problems. The fourth grade performance assessments require students to first work in groups to perform experiments in which they identify and control several variables and then work individually to write up and interpret their findings. A student who has not had multiple opportunities to conduct experiments and discuss their findings will be at a loss.

Themes and Choices. Ron Atwood at the University of Kentucky suggests that there are two different approaches to using the science core concepts as organizing themes. One approach is to start with a core concept, such as change over time and develop a theme around that concept. Examples of content chunks which could be incorporated include: changes in the size, capabilities and appearance of students over time; the life cycle of some insects; seasonal changes; political changes, etc. Other content areas, such as mathematics, reading and writing, and social studies could be integrated.
A major advantage of this approach is that the concept of **change over time** is taught in depth. Furthermore, the interdisciplinary nature of change over time and the power of this concept as an organizer are obvious and meaningful.

Karen Brittain, primary teacher at Squires Elementary, utilizes the approach of organizing thematic units around the core concepts because she says, “Children learn to think abstractly as they discover how each of the activities and topics relate to the major core concepts. This doesn’t happen when students deal with narrow, unrelated topics.”

Since commercially available instructional materials organized around the core concepts are lacking, the time and effort required to develop these units may be taxing if not prohibitive for teachers unless they pool their efforts to develop these units. To provide some help to primary teachers, Dr. Atwood and several primary teachers have developed some prototype units on the core concepts. (They are listed and described in Chapter 5.)

A second approach to using the core concepts as organizing themes is to start with content chunks judged to be important. The key content ideas are then organized around one or more powerful themes in an instructional unit. Suppose electricity, plant growth, and weather are three instructional units included in the local curriculum. The key ideas in any of these units could be organized around the theme, **systems and interactions**.

For example, in an electricity unit students would work with batteries, bulbs, and wires in constructing an understanding of circuit, conductor, and insulator, and the systems concept could be used to help focus attention on the set of objects important to the outcome in each activity. Further, the interaction concept would be applied as evidence of a closed circuit or that an object being tested is a conductor.

In studying plants the soil, water, seeds, and container might be identified as the important objects in the system. The interactions among these objects could be studied along with the more typical topics of germination, growth, development and life cycle. The same theme,
interaction and systems, could be used as an organizer for studying many apparently dissimilar topics including: different languages, non-verbal communication systems, communities, transportation, organizations, number systems, and musical groups. Interestingly, patterns, or other core concepts could be used as a theme to organize and connect these same topics!

A potential advantage of this use of themes is that instructional materials to support teaching the content units already exist, although some restructuring of activities and modification of approach would be required. Also, the in-depth study of the content topics may be more likely. However, in-depth studies of content units can certainly be done when the theme rather than a content unit is the starting point. The important point is to ensure the integrity of the content so that it enables students to understand the key ideas and their relationships.

Remember! Integration and the use of themes are only a means to an end. Use themes when it makes sense to do so and when it helps students reach the Learner Outcomes. Teach separately those topics and concepts that do not fit naturally into a theme.

Activities before labels and print please. The underlying principle for developmentally appropriate instruction in science as well as for other areas of the curriculum is that teachers should begin a study with direct experiences and interpretive discussions in order to help the children construct an intuitive understanding before they provide a name or label for the concept or process. The teacher then explains what the concept means in light of the direct experiences the students have completed and provides other examples, and perhaps nonexamples, of the concept.

Writing, as well as discussing, could be utilized before the concept naming as a way to share perspectives on activities. Children's literature or text material relevant to the topic generally should enter...
the instructional picture after the concept has been named. After the concept naming, students need additional direct experiences in which they apply the concept in different contexts.

Obviously children come to school already having had direct experiences which are helpful in constructing an understanding of many concepts, and they have been introduced to many concept names outside of school. When you can be sure that students already possess first hand experience with a concept, then instruction can proceed directly to application of the concept and the use of print. However, children are less likely to have had everyday experience with many of the science and mathematics concepts in a typical school curriculum. Thus, you will often need to provide the experiences, interpretive discussions, and concept naming before asking children to read and write about the concept.

In summary, developmentally appropriate science instruction rests upon firsthand experiences with multi-sensory materials as students employ scientific processes to discover the workings of the physical and biological world. Students work together in a variety of flexible groups as they conduct experiments and work on different projects. Sometimes these groups are formed in response to a skill need or an interest; at other times pairs or small groups of children come together to solve a common problem. Teachers use a variety of teaching strategies and utilize many opportunities for integration of the curriculum. They arrange investigative experiences followed by discussion and labeling, reading, writing, and drawing as they have students record and interpret their observations and discuss the implications of their findings for themselves and others.

MATHEMATICS AS A DEVELOPMENTALLY APPROPRIATE CONTEXT

Expectations for the teaching of mathematics have changed in Kentucky’s primary schools. The development of computation skills is no longer considered adequate. Students are also expected to:
• Value mathematics.
• Reason mathematically.
• Communicate mathematically.
• Become self-confident in their own math abilities.
• Become mathematical problem solvers.

Primary teachers are expected to change their teaching of mathematics to incorporate developmentally appropriate practices; that is, to involve students in constructing their own learning, to make the context for instruction authentic and integrated, and to make mathematics instruction facilitating. Teachers are expected to shift toward:

• Use of logic and mathematical evidence and away from the teacher as sole authority for right answers.
• Use of mathematical reasoning and away from the mere memorization of procedures.
• Use of conjecturing, inventing and problem solving and away from merely emphasizing the correct answer.
• Making connections among math, its ideas and its applications and away from treating math as a body of isolated concepts and skills (NCTM, 1991).

The new approach to teaching mathematics is not as different as it first appears, as good teaching of mathematics has always had these characteristics. There is simply more emphasis on problem solving with the use of manipulatives, on communicating mathematics, and on using mathematical reasoning.

Children learn mathematics by solving real world problems. Since the purpose of mathematics is the solution of problems, mathematics in the primary school should be approached from a problem solving perspective. Furthermore, many of the mathematics topics included in the 75 Learner Outcomes involve either social studies or science applications. When possible this means that mathematics should be integrated into thematic units based on the science and social studies core concepts. This does not mean, however, that mathematics is to be taught only in thematic units.
The introductory situations and the application extensions of the mathematics may fit into thematic units. At other times, some mathematics concepts may need to be taught separately to enable students to develop in-depth understanding. For example, after setting up real-world examples of the need to regroup (borrow) in subtraction, students will benefit from the use of base-ten blocks to discover the necessity for regrouping one set of tens in such problems as 43 - 18. While the emphasis is on the use of problem solving to accomplish authentic tasks, every mathematics topic does not have to be integrated.

Integrated instruction, developmentally appropriate practices, and authentic assessment all fit nicely together if we begin mathematics instruction with real-world, problem-solving situations. Janice Duncan of Meadowthorpe Elementary has her first and second year students begin their mathematics lessons with problem solving situations. She plans real-world questions for the students to think about and uses these questions as the basis of her instruction. At times the mathematics her children are doing is the “traditional” mathematics of place value, addition, and so on; but Ms. Duncan sets up the reason for doing this mathematics with authentic situations for the students to solve.

Later after using manipulatives and still later after using paper-and-pencil algorithms, the students go back to the real-world problems. Ms. Duncan wants her students to be able to explain what they are learning and the reasons why they are learning it. At times she also uses Box-It/Bag-It Mathematics and Daily Oral Math, but only to reinforce and provide practice on a previously taught skill or concept.
Children learn mathematics by using manipulatives. The use of manipulatives is a very important step in the learning of mathematics and a strength of Pamela Harris Huff's instruction at Harrison Elementary School. Ms. Huff does not just demonstrate the mathematics ideas with manipulatives; she has her students demonstrate their use to her. She is the "passive facilitator;" her students are the "active learners." She then encourages her students to write on paper what they demonstrate to her with the manipulatives. By doing this, the students discover for themselves the algorithms of mathematics while bridging the gap to the next steps of pictorial and symbolic representations.

Children construct their own meanings of mathematics. Vicki Lewis at Colony Elementary has a similar philosophy for the mathematics she teaches. Her emphasis is on the students constructing their own knowledge of mathematics. She designs her lessons around problem-solving situations. Her students then work with various manipulatives (counting chips, beans, unifix cubes, base-ten blocks, etc.) to derive their own methods for solving the problems. Along the way, Vicki sets up situations in which the students "discover" ideas such as grouping and regrouping in base ten for addition and subtraction. Then Vicki has her primary students explain their methods to her, first orally, then in writing. The written form develops into the traditional addition and subtraction algorithms, but these algorithms display a deeper understanding of the methods used to solve these types of problems.

Renee McIntosh at Northern Elementary also stresses her students' ability to transfer what they learn from authentic problem situations to the manipulative representation, to the pictorial representation they might see in their homework, and finally to the symbolic representation of the paper-and-pencil algorithm. Ms. McIntosh makes sure that her students understand and can explain the different ways a problem can be represented. Her six and seven-year-olds do use algorithms on paper, but only after they have discovered them. They can also show how to solve the problem that they developed using drawings and concrete manipulatives. The ability to solve problems and to explain how they solved the problems is a prominent aspect of Kentucky's mathematics portfolios.
Children learn by connecting new information to prior knowledge. Learning mathematics involves students actively in connecting new information to prior knowledge, or what Piaget calls assimilation and accommodation. For example, if a student does not know the multiplication fact $8 \times 7$, we do not want the student to say, “I don’t know.” We want the student to say, “I don’t know this yet, but I can figure it out.” Freda Klotter at Garden Springs Elementary has her students use manipulatives to see the repeated addition in the multiplication fact of $8 \times 7$. What Ms. Klotter wants the students to discover is that $8 \times 7$ (eight 7's) can also be seen as eight 5’s and eight 2’s, since 7 equals $5 + 2$. So eight 7’s is the same as the simpler problem of finding eight 5’s plus eight 2’s; that is, $8 \times 7 = 8(5 + 2) = (8 \times 5) + (8 \times 2) = 40 + 16 = 56$.

Teachers have high expectations for children’s learning... Expectations become self-fulfilling prophecies. Thus, Burma Wheeler at Mannsville Elementary and Diana Dattilo at Campbellsville Elementary recognize that teachers’ and parents’ expectations are the strongest known variables for students’ achievement. They stress “concerned mentoring” to communicate to the children and their parents that every child can and will succeed. In their classrooms, children believe they can succeed and they do.

In summary, the mathematics curriculum of the primary school is designed to improve students’ problem solving ability, their mathematical reasoning, their mathematics communication skills, their valuing of mathematics, and their self-confidence as mathematics learners. To achieve these goals, we need to employ developmentally appropriate practices, such as the use of manipulatives, active student involvement, varied teaching strategies, and integration of mathematics as a tool to solve problems in other areas of the curriculum.
WHOLE LANGUAGE AS A CONTEXT FOR DEVELOPMENTALLY APPROPRIATE PRACTICES

A successful primary teacher recently observed, "The teachers who are having the easiest time moving to the primary program are the teachers who began to use whole language in their classrooms several years ago." Why would that be so? Probably because the philosophy of whole language embodies the same beliefs as the philosophy of the primary program. Proponents of whole language remind us that whole language is **not** an approach to the teaching of reading and writing. Neither is it a method. It cannot be spelled out in a teacher's guide nor bought as a set of materials. Rather, whole language is a set of beliefs about the way children learn language and the way they learn literacy.

### ROLES OF WHOLE LANGUAGE TEACHERS

**WHOLE LANGUAGE TEACHERS:**

1. Understand how language is learned.
2. Create environments in which children use print in a variety of forms for a variety of purposes.
3. Create learning activities that are language rich, success-oriented, and noncompetitive.
4. Use authentic predictable texts that confirm what children know about how language works.
5. Believe that children of various developmental levels can benefit from experiences with the same text.
6. Use integrated thematic units in which literacy is used in a variety of subject areas.
7. Empower children to make choices about what they learn and how they demonstrate their learning.
8. Value risk-taking and use it as an evaluation tool and a form of growth.
9. Engage in assessment as an ongoing part of instruction.

What are the Beliefs of Whole Language Teachers?

**Beliefs about language learning.** Children acquire oral language easily and naturally without any formal instruction because they are constantly communicating with the significant others in their lives. Parents do not directly teach their children to speak. Parents and
children take walks together; they run errands; they read books; they have meals; they visit grandmother. During all of these daily activities, the parent is talking with the child, supplying labels for things in the environment, answering the child's questions, and explaining how things work. In this way, the child learns to speak.

So, too, will the child learn to read and write. If children are exposed to meaningful print in real life situations, they learn how printed language works. Children who learn to read on their own without formal instruction grow up in the homes of highly literate parents who read aloud to them frequently and answer their questions about print. Most children, however, do not learn to read on their own; they need more systematic support in learning to read and write.

Setting up a literate environment. In whole language classrooms this support is provided in two ways. First, the classroom teacher sets up a rich literate environment similar to that of the homes in which

<table>
<thead>
<tr>
<th>IS YOUR CLASSROOM A LITERATE ENVIRONMENT</th>
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<tbody>
<tr>
<td>1. Do you have an attractive, inviting reading center or classroom library in your classroom?</td>
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<td>2. Do you have some books displayed with the cover out?</td>
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<td>3. Do you have posters promoting reading displayed prominently in the classroom?</td>
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<td>4. Do you read aloud to the children at least once each day?</td>
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<td>5. Are children writing every day? Dialogue journals and learning logs are ideal formats for daily writing.</td>
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<td>6. Do you model writing for the children? Do you sometimes share something you have written?</td>
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<td>7. Do you have a writing center set up in the classroom that has the &quot;write stuff&quot; in it?</td>
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<tr>
<td>8. Do you have a listening center so children can listen to books as they read along?</td>
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<tr>
<td>9. Are your children writing and publishing their own books?</td>
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<tr>
<td>10. Do you have parents and other volunteers reading aloud to children and listening to children read?</td>
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<tr>
<td>11. Do your students spend time reading real books and writing for real audiences rather than doing worksheets and workbooks on isolated skills?</td>
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<td>12. Do you have an independent reading time daily (SSR, DEAR, or BEAR)?</td>
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<td>13. Do you provide meaningful practice activities (choral reading, readers theater, radio reading, plays)? Remember: Children love to perform!</td>
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<tr>
<th>IS YOUR SCHOOL A LITERATE ENVIRONMENT</th>
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<tr>
<td>1. Are the halls filled with children's products related to reading (mural, drawings, paintings, letters to and from authors, child-authored stories, posters promoting books, etc.)</td>
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<tr>
<td>2. Is the central library an attractive, inviting place where students are free to visit as often as they need to?</td>
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<tr>
<td>3. Is there a schoolwide Sustained Silent Reading Period at least once a week?</td>
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<td>4. Does the principal read aloud to students in various classrooms on a rotating schedule?</td>
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<td>5. Does the principal listen to a few children read aloud each week?</td>
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<td>6. Is there a program for involving parents and other volunteers in reading about to children?</td>
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<tr>
<td>7. Does the school sponsor grade level or schoolwide readings at least once during the year?</td>
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<tr>
<td>8. Does the school have book fairs occasionally? Late November is a good time to buy books for holiday giving.</td>
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<td>9. Does the school have a book exchange program?</td>
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<td>10. Does the school publish a newsletter for parents that includes ideas for promoting reading at home?</td>
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<tr>
<td>11. Does the principal encourage the teachers to spend money on tradebooks rather than workbooks and drill paper?</td>
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<td>12. Does the school participate in a young authors' conference?</td>
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<tr>
<td>13. Are there materials and supplies available for publishing child-authored books?</td>
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<tr>
<td>14. Is there a section of the central library devoted to child-authored books?</td>
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<tr>
<td>15. Are parents encouraged to read aloud to their children on a daily basis?</td>
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<tr>
<td>16. Are parents encouraged to have a 15 minute quiet time each day so that all family members can read self-selected material?</td>
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children learn to read on their own. In these classrooms, children are immersed in actual experiences that engage them in using reading and writing in meaningful, purposeful ways. They are surrounded by books and print. They learn to read by reading. They learn to write by writing. They become members of the literacy club.

**Teaching skills in context.** Secondly, whole language teachers support the learning of literacy through instruction that helps the child discover how print works. There is a misconception that skills are not taught in whole language classrooms. However, skills are taught. Whole language teachers do teach skills. The difference is that skills are taught within the context of whole pieces of meaningful text and at the time when they are needed by the child rather than according to a predetermined scope and sequence. Skills instruction proceeds from whole-to-part and back to the whole again rather than from part-to-whole as in traditional programs.

**Use of quality literature.** Whole language teachers use quality children’s literature. This literature may be in the form of children’s tradebooks or authentic children’s literature selections from basal anthologies or a combination. Teachers who know children’s literature and have their own “built-in scope and sequence charts” are striking out on their own, relying solely on children’s tradebooks, reading conferences, and mini-lessons to teach reading. Other teachers who don’t feel comfortable and or who don’t have the time to design their own reading programs are using their basal anthologies and teacher’s manuals as the foundation of their programs but supplementing and enriching the basal program with children’s literature and other types of real life print materials (magazines, newspapers, recipes, schedules, etc.)

**Role of basal materials.** Most of the new basal programs use authentic children’s literature that is organized around themes, many of which fit within those recommended for teaching Kentucky’s Learner Outcomes. Most have supplementary libraries of children’s tradebooks that support and extend the themes in the anthologies. The manuals provide guidance in teaching the comprehension skills and strategies needed for success on the reading portion of Kentucky’s accountability assessments. When used appropriately and flexibly,
basal materials can save teachers time and provide them with valuable teaching strategies based upon the latest research. However, the key to successful use is flexibility. The teacher needs to pick and choose from the available activities and components only those that meet the needs of the children. The manual should be used as a sourcebook for ideas and not be followed slavishly page by page and line by line. The selections need not be used in sequence and many of the isolated skills lessons in workbooks and worksheets need not be used.

It is important to remember that the time children spend doing isolated skills exercises detracts from the time that they will be spending reading connected text. This can have important negative consequences as research tells us that there is a relationship between the amount of time that children spend reading connected text and their success on reading achievement tests. In other words, if we want children to become successful readers, we must provide them with the opportunity to engage in reading real texts and discussing the meaning of these texts.

Use of predictable texts. For beginning readers, it is extremely important to use predictable texts that confirm what the children already know about how language works. Predictable texts enable the reader to anticipate the next word, phrase, line, or event or episode. Because the language is natural and the plots unfold in predictable ways, children can use their knowledge of language (syntax) and their knowledge of the world (semantics) to support their limited knowledge of decoding and letter sound relationships (grapho-phonics). In other words, they can use context clues to figure out what the print says. They are not stranded with “sounding out” isolated words. The emphasis remains on meaning.
Shared book experience with big books. Now that publishers have provided us with a wide range of predictable big books, teachers can share books with a group of children in much the same way that a parent shares a book with an individual child. The shared book experience is a powerful tool to use in multi-age classrooms because children of various developmental levels can respond to the same text in different ways. The emergent reader is learning how books work, that is, print concepts such as left-to-right, top-to-bottom, front-to-back, letter, word, etc. Some children will be able to read along on the predictable parts; others will be able to read the whole book independently. Still others may write a take-off using the predictable pattern.

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<thead>
<tr>
<th>SHARED BOOK EXPERIENCE</th>
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<tbody>
<tr>
<td>1. Teacher reads aloud the book to the children</td>
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<tr>
<td>For enjoyment and meaning</td>
</tr>
<tr>
<td>Encourage prediction</td>
</tr>
<tr>
<td>2. Teacher rereads book, inviting children to join in on predictable lines</td>
</tr>
<tr>
<td>3. Multiple rereadings allow children to respond at various levels</td>
</tr>
<tr>
<td>High-readiness learners will learn to read predictable lines and even the whole text</td>
</tr>
<tr>
<td>Low-readiness learners can read along, roleplaying themselves as readers</td>
</tr>
<tr>
<td>4. Teacher points out print concepts during rereadings</td>
</tr>
<tr>
<td>Title, author</td>
</tr>
<tr>
<td>Front to back</td>
</tr>
<tr>
<td>Left-to-right</td>
</tr>
<tr>
<td>Top-to-bottom</td>
</tr>
<tr>
<td>Letter, word, sentence, page</td>
</tr>
<tr>
<td>5. Retellings with storyboards and character cards teaches comprehension skills</td>
</tr>
<tr>
<td>Sequencing</td>
</tr>
<tr>
<td>Summarizing and paraphrasing</td>
</tr>
<tr>
<td>Story Structure</td>
</tr>
<tr>
<td>Distinguishing Reality/Fantasy</td>
</tr>
</tbody>
</table>

The importance of modeling

Read aloud daily. Children need models of both the product and process of reading. To promote a love of books and an enjoyment of reading, children need many opportunities to hear skilled readers...
In whole language classrooms, teachers read aloud to their students every day and often more than once a day. Reading expressively from well-written text. On the other hand, a sure way to kill interest in reading is to have poor readers listening to other poor readers read poorly. In whole language classrooms, teachers read aloud to their students every day and often more than once a day. They read aloud both narrative and expository materials as well as poetry to familiarize students with the sounds of printed language and the organizational structures of different types of texts. They ask questions that engage students with the story and help them relate the story to their own lives. Hoffman and Roser found that teachers who are most effective at reading aloud use the following strategies:

**EFFECTIVE READ ALOUD STRATEGIES**

- Teacher invites students to predict events/predict story language
- Teacher invites student response
- Teacher accepts/extends responses
- Teacher helps link book with student lives
- Teacher comments/responds to the book
- Teacher ensures understanding of key vocabulary
- Teacher uses questions judiciously/purposefully
- Teacher records students language on unit chart
- Teacher provides for additional responses (writing, drama, art, music, movement, talk)

J. Hoffman and N. Roser

**Model word recognition strategies.** Teachers need to model for students the word recognition and comprehension strategies that skilled readers use during the reading process. The most valuable word recognition skill is the use of “context plus phonics.” The teacher can demonstrate for the children that whenever they come to a word they don’t know, they either read to the end of the sentence or they reread the whole sentence, substituting “blank” for the unknown word, and then think about what would make sense. Then they look at the word to see if the printed word and the word that makes sense begin alike.
The use of "context plus initial sound" is a highly successful way of figuring out unfamiliar words and can be used even by beginning readers when most of the words in the sentence are known and the unfamiliar word is in the students' meaning vocabulary but just not in their sight vocabulary.

**Model comprehension strategies.** Skilled readers use a variety of comprehension strategies **before, during, and after reading.** These include:

<table>
<thead>
<tr>
<th>READING STRATEGIES</th>
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</thead>
<tbody>
<tr>
<td><strong>Think Ahead</strong></td>
</tr>
<tr>
<td>Preview the Selection</td>
</tr>
<tr>
<td>Recall Prior Knowledge</td>
</tr>
<tr>
<td>Make Predictions</td>
</tr>
<tr>
<td>Set Purposes</td>
</tr>
<tr>
<td>Adjust Reading Strategies to Purpose and Type of Selection</td>
</tr>
<tr>
<td><strong>Think While Reading</strong></td>
</tr>
<tr>
<td>Review Predictions</td>
</tr>
<tr>
<td>Check Purposes</td>
</tr>
<tr>
<td>Use Fix Up Strategies to Clarify Comprehension</td>
</tr>
<tr>
<td><strong>Think Back</strong></td>
</tr>
<tr>
<td>Review Predictions</td>
</tr>
<tr>
<td>Check Purposes</td>
</tr>
<tr>
<td>Review Comprehension: Retell or Summarize</td>
</tr>
<tr>
<td>Evaluate, relate, react, integrate, and apply</td>
</tr>
</tbody>
</table>

Focus on one of these strategies at a time. For example, model for students how you make initial predictions and use evidence from the text to confirm or revise your predictions. Select an appropriate text; read the text aloud; think aloud at logical stopping points about the reasons why you did or did not revise your prediction.
Beth Davey suggests the following five techniques for helping students develop more effective reading comprehension strategies:

**MODELING READING COMPREHENSION STRATEGIES**

I. **MAKE PREDICTIONS**
   From the title and pictures, I predict that the story will be about a boy who is trying to find his lost dog.

II. **USE VISUAL IMAGERY**
   I have a picture in my head of what the black stallion looks like as he runs across the meadow.

III. **SHARE AN ANALOGY - LIKE-A**
    This is like the time that I went to the fair and lost my money.

IV. **VERBALIZE A CONFUSING POINT**
    This doesn't make sense to me. I thought he didn't want to go because his friend was not able to go.

V. **DEMONSTRATE FIX-UP STRATEGIES**
   I had better reread that part. I didn't understand what it meant. I'm confused but I'll read on to see if the author explains it later.

**SELF-EVALUATION OF THINK ALOUDS**

While I was reading, how often did I use the strategies?

<table>
<thead>
<tr>
<th></th>
<th>Not very much</th>
<th>A little bit</th>
<th>Much of the time</th>
<th>All of the time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Predictions</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Formed pictures</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Used &quot;like-a&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Found problems</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Used fix-ups</td>
<td></td>
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</tbody>
</table>

Provide opportunities for practice

**Time for independent reading.** Children learn to read by reading, so they need lots of practice reading materials that are at an appropriate difficulty and interest level. Set aside some quiet, uninterrupted time each day for children to read self-selected materials. Many teachers call this time Sustained Silent Reading (SSR), Drop Everything and Read (DEAR), or Be Enthusiastic About Reading (BEAR). The important thing is that time is built into the school day for all children to read self-selected material and for the teacher to model the silent reading process.
RULES FOR SUSTAINED SILENT READING

1. Begin with the whole class.
2. Every child reads.
3. Teacher reads to set an example and serve as role model.
4. Visitors read, too.
5. Students must have a book ready.
6. No interruptions. Students may rest if they tire.
7. Use a timer.
8. No records or reports are kept by the students.
9. Gradually increase the length of time until students can sustain themselves for 30 minutes.
10. Have a brief sharing period following SSR. Stimulate the discussion with open-ended comprehension questions.

Multiple opportunities for rereading. Inexperienced readers need multiple opportunities to revisit a piece of text. Multiple rereadings of the same text build fluency and confidence in beginning readers. For more mature readers, rereading a text enables students to reach higher levels of comprehension. During the first reading of a story, for example, we usually are focusing on the plot just to find out what happened. As we reread, we begin to notice some of the finer points, such as character motivations or stylistic devices used by the author.

Readers Theater and Choral Reading are also effective ways to build fluency and sight vocabulary through multiple rereadings. Students enjoy performing and will happily reread poems and stories as they prepare to present them to an audience of their classmates.
We do not want to give up the opportunity for students to come together in groups to discuss the selections they are reading.

Conducting Literature Conversations with Young Children

Primary teachers in Kentucky are moving away from the lock-step use of basal reading programs in which the dominant method of instruction was the teacher directed reading lesson conducted in ability groups. This is a step in the right direction; however, we do not want to give up the opportunity for students to come together in groups to discuss the selections they are reading. Fortunately, teachers are coming up with a variety of alternative ways to involve children in literature discussions.

The guiding principle for literature conversations is:

Encourage children to talk about books in the same way that you discuss books with your own friends and conversation partners.

TIPS FOR GUIDING THE DISCUSSION

1. Avoid asking questions to which you already know the answer. Ask open-ended questions that allow students to express their own ideas about the book.
2. Try to remain neutral on interpretational issues.
3. Encourage students to clarify unclear responses.
4. Encourage all students to participate by drawing nonparticipants into the conversation.
5. Encourage students to use information from the text to support their responses.
6. Encourage students to compare information in the text to their own knowledge and experience.
7. Play "devil's advocate" in order to stimulate alternative ways of thinking about the text.
8. Help students set rules to guide literature conversations in ways that promote the open exchange of ideas and respect for the ideas and opinions of others.
The major purpose of literature conversations is to improve both comprehension and motivation to read by helping students make connections between books and their own lives. Three different ways that Kentucky primary teachers are using to organize these literature conversations follow:

**Literature Circles**

Bev Dean at Picadome Elementary selects 5-6 children's literature books (of which she has multiple copies) that span a range of reading levels. She gives a synopsis of each book to the class in a whole class setting and the children select the book they would like to read. Once the book is read, students do five tasks related to the book. They may do a TAPPS or a letter to Ms. Dean. In a TAPPS, the student writes the **title, author, prediction, pizzazz words** (5 self-selected new or favorite words), and a **summary** of the book. If they write a letter, they include TAPPS information in standard letter format.

Then students choose four additional activities from a list of 17 varied options, such as designing a bookmark or postcard for the book or writing an alternative ending. As one student said, "It's hard to choose only four. There are so many things I want to do. I'm going to do an extra one because it's fun!" To ensure that students engage in a variety of activities throughout the year, Ms. Dean designed a sheet for each student with the 17 activities across the top and horizontal sections marked off underneath to record the title of the book and the activities the child chose to do.

When everyone has finished reading the book, students reading the same book meet together with Ms. Dean to share thoughts about the book. Then the cycle starts again.
Book Share

Kelly Sherkat at Warner Elementary has five students each day give book share talks. They get up in front of the class and give a brief overview of the book and show a favorite illustration from the book. The other students then decide which of the book discussion groups they want to attend. The book promoter then assembles the discussion group, reads the book aloud to the group (or a portion of the book if it's a chapter book), and then asks the other students questions about the book. The questions are prepared the previous day and must reflect the levels of questions in Raphael's QAR (Right There, Think and Search, and On your Own). The book promoter then fills out a self-evaluation sheet regarding their oral reading fluency, their ability to keep the group engaged, and their ability to guide the other students in answering the questions.

---

**Book Share:**

Reader: __________________
Date: __________________
Title: __________________
Copyright: __________________
Book Type: __________________
Author: __________________
Illustrator: __________________
Why did you choose this book to share? __________________

**Members of your group:**
________________________
________________________
________________________
________________________

**Behavior of your group:** ☺️😊😢

**Comments:** __________________

**Self-evaluation:** 
1. I was prepared. yes • no • almost
2. I knew all the words. yes • no • almost
3. I controlled my group. yes • no • almost
4. Words I need to work on: __________________
Whole to Part Instruction Groups

Carol Ledford at Lansdowne Elementary has been working on students' use of story structure in their own compositions and using examples of professionally written stories as examples of the components of a well written story. She reads a book aloud to the whole class and together they fill in an overhead on which they list the setting (time and place), main character, the character's problem or goal, the way in which the character solves the problem or achieves the goals, and the way the story turns out (resolution). She then chooses six readers and six favorite children's books. The readers take a book and move to an area of the room where the other students may join the group of their choice (group size is limited to 4). Using a cooperative learning approach, the children select a recorder and reporter. After the reader reads the book aloud to the group, the children discuss the story components while the recorder writes them on the recording sheet. When the whole group reconvenes, the reporters share the story components discussed in their group.

(Ms. Sherkat and Ms. Ledford can be seen using these examples of literature conversations in a video tape series developed by the Kentucky Department of Education entitled Whole Language in the Primary Classroom.)

Reader Response Journal

To help students prepare for literature conversations, Regie Routman, author of Invitations, suggests that they keep a 3-Column journal as they read. In Column 1, the student lists the page number of the information they want to discuss; in Column 2, they write down the idea they want to discuss; and in Column 3, they write down the proof or evidence from the story that led them to the conclusion they are discussing.

<table>
<thead>
<tr>
<th>Page #</th>
<th>What I Think</th>
<th>Proof</th>
</tr>
</thead>
</table>

Primary Thoughts Chapter Six 157
By writing stories and informational pieces that eventually are published or shared with an audience, they learn firsthand the steps in the writing process.

Remember: During literature conversations, your role as teacher is to model discussions that promote greater involvement with and understanding of the selection. Gradually you want to phase yourself out of the discussions and turn responsibility over to the students.

Writers Workshop

Writing is an integral part of a whole language classroom where students are using writing to communicate with a variety of audiences for a variety of purposes. In a whole language classroom, students write letters to one another and to their parents, relatives, and friends outside the classroom; they write instructions for feeding the classroom pet; they write up the results of interviews, surveys, and experiments; they keep learning logs and reader response journals; they write take-offs on predictable books and books about personal experiences and topics they have studied during theme-centered units. Their writing is meaningful and purposeful.

From these many and varied experiences with writing, they learn that writing is a process. Although there are some types of writing that require little or no revision (a quick note to a friend, class notes, or a list of things to remember), they learn that most writing undergoes revision before it is shared with an audience. By writing stories and informational pieces that eventually are published or shared with an audience, they learn firsthand the steps in the writing process.
THE WRITING PROCESS

PREWRITING  Generate ideas & collect information
(Read, research, interview, survey, observe, experiment, draw, paint, etc.)

DRAFTING  Get the ideas down on paper
(Think about purpose and what the audience needs to know; Decide on important information to include;
Organize the information logically.)

REVISION  Clarify to make sense
(Read the piece to a friend or teacher; Add, delete, and change parts that are not clear to them.)

EDITING  Correct spelling, punctuation, word choice, and sentence structure
(Use the Writer's Self-Evaluation check list.)

PUBLISHING  Share with your audience
(Bind in a book; make a poster; mail the letter; publish the newspaper; read in the Author's Chair)

WRITER'S SELF-EVALUATION

1. Did I think about my audience?
2. Did I think about my purpose?
3. Will my work make sense to my audience?
4. Did I make my point?
5. Did I include the important details?
6. Are my ideas in a logical order?
7. Do my sentences express complete thoughts?
8. Did I choose good words?
9. Did I check my spelling?
10. Is my punctuation correct?

NAME
For most of us, writing is hard work and not worth the effort unless we are writing to communicate a message to a real audience.

A Classroom for Writers

Several characteristics are vital to a classroom that supports the growth of writers:

1. TIME - Students must have time to write. Large blocks of time must be provided on a daily basis. As all writers know, it is impossible to write without long, frequent periods of uninterrupted thought.

2. AUDIENCE - Students must have an audience for their writing. For most of us, writing is hard work and not worth the effort unless we are writing to communicate a message to a real audience.

3. FEEDBACK - Students need feedback from other writers to determine whether their writing is making sense and communicating to the audience. They also need the help of more experienced writers, especially the teacher, on ways to make their writing better. Teachers provide this support in conferences and mini-lessons.

4. MATERIALS - Students need the "write" materials: various sizes and colors of paper; many types of pens, pencils and markers; dictionaries, thesauruses, and other reference books; and a folder for storing their works in progress. The writing folder enables students to see their own growth as writers throughout the year and provides documentation for the teacher to use in parent conferences.

Writing Folders

- Provide each student with a manila file folder or a pocket folder in which to store works in progress. Have them keep a list of completed pieces and the date of completion on the front.
- Provide a central storage location. Color code the tabs by seating arrangement for easy access.
- Staple the Writer's Self-Evaluation sheet on the inside front cover as a reminder of the areas that are important in the Kentucky writing assessment.
- Have students list topics they might write about on the outside back cover. When you notice that a child knows a lot about a topic or shows interest in an area, suggest he or she puts it on the list.
- Staple a list of the skills you think are most important on the inside back cover. When you notice evidence that the child successfully demonstrates that skill, note the date beside it. Skills that students still need to work on can then become the focus of mini-lessons for small groups or the whole class.
- Keep a cumulative writing folder for each child's completed works. Move completed pieces from the daily folder to the cumulative folder.

A major part of the fourth grade statewide assessment system is the Writing Portfolio. Even though students in the primary program do not have to submit a writing portfolio, keeping a writing folder will prepare them for the process.

"Hot Off the Press"

Bev Dean at Picadome Elementary has a 45 minute writing workshop everyday and incorporates writing into her literature circles, mathematics, and thematic units as well. At the beginning of the year, she uses teacher modeling and a series of mini-lessons, working with the group as a whole to introduce the steps in the writing process. Early lessons focus on topic selection, brainstorming, and drafting. Then, she shows students how to revise for clarity, how to make a point and support it, how stories are organized, and how to construct a paragraph.

Later, she uses examples from the children's own writing to teach various editing skills, such as punctuation, grammar, sentence structure, word choice, and various conventions. She has no need for a canned program of artificial errors or language arts worksheets. Her mini-lessons evolve out of the children's own writing. As the students work through the steps of the writing process, the examples, ideas, and guidelines from the mini-lessons are recorded on chart paper and displayed around the room for future reference.
During the editing conference, Ms. Dean chooses one or two things to focus on, depending upon the needs of the student.

The students each have a writing folder that is easily accessible to them anytime during the day. The folder is a cardboard two pocket folder with a three prong binder in the middle. An extra two-sided pocket is inserted, providing four separate pockets for writing information. The pockets are labeled *prewriting*, *editing*, and *publishing*. The fourth pocket contains a *Quick-Word Handbook for Everyday Writers*, a handy large-print dictionary of high frequency words and common abbreviations. There are spaces on each page for the students to add in their own high-frequency words. There is also a "Writing Ideas" sheet that has spaces for recording information in the following categories: Things I Love, Things I Hate, Special People, Special Things, Special Places, and Special Experiences. This ensures that students always have a topic to write about - no need for story starters or assigned topics!

Two other key sheets are in the fourth pocket of the writing folders to help the students keep track of their spelling and writing progress. A "Writing Log" from *Managing the Whole Language Classroom* has columns to record the title and to track the status of a piece, e.g. first draft, second draft, revised, edited, and teacher's comments.

The spelling sheet, titled "Have-A-Go," is an adaptation from Regie Routman's *Invitations*. There are four columns: copy word, first attempt, second attempt, and standard spelling. Students copy their misspelled words under the first column, and then try to "re-spell" it once or twice. Their efforts are compared to the standard spelling (provided by a dictionary or the teacher). All of these sheets help students organize their ideas and assume responsibility for their writing progress.

As the students finish their first drafts, they edit the work themselves first. Next they find a friend and edit together. Finally they edit with Ms. Dean before they can publish. During the editing conference, Ms. Dean chooses one or two things to focus on, depending upon the needs of the student. She does not attempt to work on all aspects of writing in the same piece. Once edited, students publish and display their work under the "Hot Off the Press" sign.
The following chart summarizes the practices that comprise an effective whole language program and reminds us that students need modeling and practice as well as meaning based instruction if they are to become both skillful and motivated readers and writers. This brief overview of whole language practices appropriate for the primary program only begins to tap the wealth of information available on the topic. In the reference list, you will find many other helpful resources regarding whole language in the primary school.

### THREE FACETS OF EFFECTIVE/AFFECTIVE LITERACY PROGRAMS

<table>
<thead>
<tr>
<th>Modeling</th>
<th>Integrated Instruction</th>
<th>Practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading aloud daily</td>
<td>Focus on Meaning</td>
<td>Sustained Silent Reading</td>
</tr>
<tr>
<td>Teacher</td>
<td>Involve students in reading connected text</td>
<td>Choral Reading Warm-ups</td>
</tr>
<tr>
<td>Principal</td>
<td>Use authentic materials and assessments</td>
<td>Peer pairs and small group reading</td>
</tr>
<tr>
<td>Celebrity readers</td>
<td>Use whole-part-whole instruction</td>
<td>Readers theater</td>
</tr>
<tr>
<td>Parents</td>
<td>Support students efforts by scaffolding not decontextualizing</td>
<td></td>
</tr>
<tr>
<td>Older Students</td>
<td>Surround reading with writing</td>
<td>Read-Aloud Service</td>
</tr>
<tr>
<td>Sustained Silent Reading (SSR)</td>
<td>Use BDA format in reading and writing (Before, During, After)</td>
<td>Reading to aides, parents, grandparents, seniors, older students</td>
</tr>
<tr>
<td>Sharing books</td>
<td>Engage students in literature conversations</td>
<td>Daily time for writing</td>
</tr>
<tr>
<td>Think-aloud procedures</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Write with students</td>
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<tr>
<td>Share your writing</td>
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</table>

### SUMMARY

As Kentucky's primary teachers move toward full implementation of the primary program, they need to remember that developmentally appropriate practices are the foundation of the program. Our efforts will be successful when we design integrated instruction around the 75 Learner Outcomes, when we provide opportunities for students to build on prior experiences, to become actively involved in their own learning, to work both independently and cooperatively with other students on a variety of projects, to experience a variety of instructional strategies, and when they engage in both self-initiated and teacher directed activities.
REFERENCES


Primary school integrated staff development series. (1992). Frankfort, KY: Kentucky Department of Education.


7. MONITORING & REPORTING STUDENT PROGRESS

KEY ASSUMPTIONS ABOUT ASSESSMENT IN THE PRIMARY PROGRAM

The notion of a primary program is based upon key assumptions about how to nurture the continuing growth of young children's knowledge and understanding of themselves and their world. Assessment in the primary program is also based on some key assumptions:

- Assessment should nurture children's growth in knowledge, understanding, and confidence.
- Assessment should focus on important goals and involve multiple sources of information.
- Assessment should inform and support developmentally appropriate instructional practices.
- Parents are essential partners in the assessment process.

We'll examine each of these assumptions in turn to see what implications they have for monitoring and reporting student progress in the primary program.

ASSESSMENT SHOULD NURTURE CHILDREN'S GROWTH IN KNOWLEDGE, UNDERSTANDING, AND CONFIDENCE

Tests and other forms of evaluation are perhaps the most visible and ubiquitous aspect of our education system. Elementary, middle, and high school students take all kinds of tests, from informal pop quizzes to high security, standardized, multiple-choice examinations that have a powerful impact on their plans for college and their careers as adults. Indeed, many educators believe that reforming the ways we evaluate students is a key step to reforming the entire system of education.

One of the most important lessons to learn about assessment is that assessment can and should serve different purposes. We find it useful to think about the various purposes of assessment in terms of different audiences.
For example, assessment can help:

- Students become more self-reflective and in control of their own learning.
- Teachers focus their instruction more effectively.
- Educators determine which students are eligible for Chapter 1, programs for the gifted, or special education.
- Parents understand more about their children's progress as learners.
- Administrators understand how groups of students in their schools are progressing as learners.
- Legislators and other representatives of the public understand how groups of students across the state are progressing as learners.

Each of these audiences, from students to legislators, is an important audience, worthy of the best information available. In the past, however, we have tried to satisfy the different needs of different audiences with a very narrow range of assessments—mostly large scale, standardized tests like the CTBS. Educators across the country and the Commonwealth have come to realize that no single instrument or approach can fulfill all the demands placed on evaluation by different audiences.

A better understanding of the purposes of assessment can be gained by viewing assessment as a continuum with assessment for learning at one end and assessment for accountability at the other.
Assessment for learning and assessment for accountability are not mutually exclusive. In fact, one of the most important aspects of Kentucky's new assessment system is that assessment for learning and assessment for accountability are aligned. This is an important advance in the way we think about assessment because it assumes that the more we help students become self-reflective and take control of their learning, and the more we help teachers improve their instruction, then the better students will perform on tests of accountability.

This brings us back to the first key assumption for this chapter. The most important purpose of assessment in the primary program is to help nurture the continuing growth of the students' knowledge, understanding, and confidence. The most important audiences of assessment in the primary program are students, teachers, and parents.

**Assessment should focus on important goals and involve multiple sources of information**

The second key assumption underlying assessment in the primary program is that learning is complex and no one instrument, technique, or test can provide us with adequate information. This is particularly true of the kinds of learning we value here in Kentucky. Recall that KERA identifies Six Learning Goals that students should know and be able to do:

1. Apply basic communication and math skills for purposes and situations they encounter in life.
2. Apply core concepts and principles from mathematics, the sciences, arts and humanities, social studies, practical living studies and vocational studies for purposes and situations they encounter in life.
4. Become responsible members of a family, work group, or community.
5. Think and solve problems across the variety of situations they encounter in life.
6. Connect and integrate the knowledge they have gained in school into their own lives.
These Six Learning Goals are complex and no single method of assessment will provide a sense of how a student is growing in these areas. The recognition of the complexity of the outcomes we wish to measure has led us to the concept of authentic assessment. The term authentic assessment captures the importance of using multiple sources of information in the primary program. Authentic assessment means assessment that examines the kinds of learning we value. Authentic assessment also means information gathered from a variety of sources including observation, anecdotal records, student journals, logs, work samples, conferences, and other methods. We’ll examine these methods of authentic assessment in more detail later in this chapter.

**Assessment should inform and support developmentally appropriate instructional practices**

A major criticism of traditional approaches to assessment is that they drove instruction in negative ways. Tests that focused on low-level isolated skills resulted in instruction that focused on low-level isolated skills. Kentucky’s educators understand that assessment in the primary program should enhance the kind of curriculum and instruction that addresses the physical, social, intellectual, emotional, and aesthetic/artistic needs of young students.

Other chapters in this book describe developmentally appropriate practices in detail, but in general, assessment in the primary program should support instructional strategies which:

- Require active child involvement, interaction, exploration, and discovery.
- Integrate the curriculum through the use of appropriate themes and projects.
- Involve the use of whole language experiences and activities.
- Implement process reading and writing across the curriculum.
• Utilize manipulatives and multi-sensory materials.
• Involve cooperative learning experiences.
• Include child-initiated and teacher-directed activities.
• Address multiple intelligences and varied learning styles.
• Provide experiences which move beyond the walls of the classroom.

Parents are essential partners in the assessment process

The third key assumption underlying assessment in the primary program is that assessment is most effective when parents are involved in and take responsibility for monitoring students' growth and progress. A number of important benefits come from parental involvement in the assessment process:

Parents usually know more about their children than anybody else does. Parents can provide insights about their children's development and background that helps teachers do a better job of nurturing each child.

Parents become more supportive of the primary program. Parents gain a better understanding of how children develop as a whole and why teachers use developmentally appropriate instructional practices that address the social, emotional, physical, aesthetic, and cognitive needs of children.

Parents become more knowledgeable about assessment itself. They learn that report cards, letter grades, and the results from standardized tests do not provide the rich kinds of information that lets us know if students are making progress towards Kentucky's Six Learning Goals.
Assessment is authentic when it occurs continually in the context of the classroom environment and reflects actual learning experiences.

METHODS OF ASSESSMENT IN THE PRIMARY PROGRAM.

The term authentic assessment is often used when teachers talk about assessment in the primary program. Assessment is authentic when it occurs continually in the context of the classroom environment and reflects actual learning experiences. Teachers across Kentucky use a variety of authentic assessment strategies to document students' growth. In the remainder of this chapter, we will examine five recommended assessment strategies: 1) Learning Portfolios; 2) Observation: Anecdotal Records and Developmental Checklists; 3) Student-Teacher Conferences; 4) Parent-Teacher Conferences; and 5) Report Cards.

It is important to note from the beginning, that these five strategies are interrelated. The portfolios will contain, among other things, records of the teacher’s observations, and conferences with students and parents. Portfolios, anecdotal records, and developmental checklists provide important starting points for discussions among teachers, students, and parents. And, of course, the information on report cards is intimately linked to the evidence gathered from portfolios, observations, and conferences.

Perhaps the best way to think about these five strategies is captured in the following diagram:
LEARNING PORTFOLIOS

Learning portfolios (which are sometimes referred to as learning profiles) are systematic collections of student work, teacher records, and other kinds of evidence that can be used as the basis for evaluating students' progress. The various kinds of evidence that goes into learning portfolios can be gathered by both students and teachers and often includes the following:

- Samples of daily work
- Samples of best work
- Records of student's self-evaluation
- Summaries of Running Records or Informal Reading Inventories
- Logs of books read
- Audio and/or video tapes
- Lists of goals identified by students
- Records of student-teacher and parent-teacher conferences
- Observational Checklists

Learning Portfolios have a number of advantages. For example, learning portfolios:

- Provide teachers with a richer view of how students are progressing in all areas of the curriculum.
- Promote the link between assessment and instruction.
- Involve students in assessing their own learning and thus promote self-sufficiency.
- Provide an excellent topic of discussion for parent-teacher conferences.
- Enhance parents' understanding of the primary program.
Teachers and students need to adapt portfolios so that they are useful sources of information - not extra burdens of busy work.

Learning Portfolios: Kentucky Examples

The students at Wheeler Elementary keep three portfolios: Video, Writing, and Math. The Video Portfolio shows the individual student reading stories, participating in math activities, reciting poetry, and participating in other science and social studies activities. The children tell about a project that they think is their best and explain why they think so. The video travels with the student and serves as a vivid demonstration of their progress throughout the primary years.

Linda Edin, Beth Ewert, and Carol Ledford at Lansdowne Elementary School have developed reading and writing portfolios that they find useful with their students. Here are some of the contents these teachers suggest:

- Table of Contents.
- Student responses to reading journals.
- Anecdotal records of reading conferences.
- Graphs showing progress during running records.
- Graphs showing progress on learning sight words.
- Log of books read.
- Lists of written work and/or ideas for future writings.
- Drafts and revisions of written work.
- "I can do" list showing progress on various aspects of writing.
- Anecdotal records/editing notes from writing conferences.
- Dictionary of words the student is working on.

It is important to note that not all of these contents are necessary for all students at all times. Teachers and students need to adapt portfolios so that they are useful sources of information - not extra burdens of busy work!
Using Portfolios To Help Students Reflect On Their Own Growth As Learners.

Paulson, Paulson, & Meyer argue that what makes a portfolio a portfolio is that the student is intimately involved in selecting and evaluating the contents of the portfolio. They state that a portfolio is something done by the child rather than to the child. The key to using portfolios in this way lies in helping children become self-reflective learners.

Here are three examples cited by Paulson, Paulson, & Meyer that illustrate how students can reflect on and evaluate their own work. These are some cover sheets or letters that students of different ages have included in their portfolios:

Please read this. It is persuasive. I used all my writing skills to make this paper persuade. Word choice was very important to me.

The Ways I've Grown In Writing
I have learned that you can use other words that give more detail and more elaboration.
Such as from bad to grim and from big to enormous. It has been really fun comparing stories and finding out in many ways how I've grown.

At the beginning of the year,
I haven't yoosy periods and I am now.
At the beginning of the year,
I haven't yoosy sentences and I am now.
At the beginning of the year,
I haven't yoosy elaboration and I am now.

Kentucky's primary teachers have been equally successful in getting their students to reflect on their own work. The teachers at Lansdowne Elementary School, for example, have their students select a piece of writing each month as their best piece and tell why. Here is the form they use and some of the reasons why children have selected these particular writings as some of their best work.
These samples emphasize the importance of helping all students, particularly young students, reflect on their own work and internalize standards of quality.

Recall that one of the key assumptions about assessment in the primary program is that assessment should inform and support developmentally appropriate instructional practices. Nowhere is the link between assessment and instruction better illustrated than when teachers and children talk about what makes a piece of writing a best piece.

Gretchyn Turpen, a teacher at the Southside Elementary School, had her class come up with ideas of what they thought makes a piece of writing a best piece. Her students generated the following list:

- Uses imagination
- The words make good pictures in your mind
- Uses things that happen in your own life
- Uses writing rules like periods and capitals
- Spaces between words
- Makes you want to keep on reading

Gretchyn reports, "After writing down these ideas the children were able to evaluate the work in their portfolios with some focus. The audience for this best piece was their own classmates. When they realized that their best pieces would truly circulate among their friends, they became very self-motivated and diligent in their efforts to present..."
their best pieces to their friends in the best possible light. Now when the authors read their best pieces in the classroom, they aren’t satisfied unless they are getting laughs, gasps, or smiles from the audience. We now choose a best piece about once every two months which has added a lot of enthusiasm to our writing workshops.”

What the students were experiencing in Gretchen Turpen’s class was the essence of assessment for learning rather than assessment for accountability. The opportunity to reflect on their own work would lead them to better writing which would lead to more sophisticated reflections on their own work. Students who have this kind of opportunity in the primary program will be well-prepared for the KIRIS writing portfolios they will encounter in 4th grade. More importantly, they will have learned the most important secrets to becoming a good writer.

Kentucky’s primary teachers understand that the ability to engage in self-reflection does not just appear fully developed in children. Students need to see teachers and other students modeling self-assessment. Students also need support and structure as they learn to evaluate themselves as learners. Here are some forms that primary teachers may find useful in providing this kind of support and structure:

---

**Primary Thoughts**

Chapter Seven

---

**Warner Writing Assessment**

Dear ____________,

I have chosen the attached sample of writing as my best this grading period. Let me tell you what I have learned about writing.

I have also chosen the following goals for myself as a writer.

Thanks for helping me do my best.

Sincerely,
A Word About The Kentucky Early Learning Profile
The KELP

The Kentucky State Department is in the process of developing an assessment instrument that will be the primary assessment tool used with students from the time they enter the primary program until they are ready to enter fourth grade. The Kentucky Early Learning Profile - the KELP - is being designed to document growth and development in the social, emotional, physical, aesthetic, and cognitive domains. The Kentucky Department of Education plans to have the KELP available for use by primary teachers starting in the fall of 1994.

The KELP will be easily implemented by teachers who are familiar with learning portfolios. The KELP will include information gathered during parent-teacher conversations; student-teacher conversations; teacher observations; from student work samples collected from across a variety of tasks and contexts; and the results from students reflecting about their own work.

Current information about the KELP can be obtained from the Office of Curriculum, Assessment, and Accountability, Kentucky Department of Education, 500 Meri Street, Frankfort, Kentucky 40601, (Tel.: 502-564-4394)

Observation: Anecdotal Records and Developmental Checklists

Most of the information that teachers gather about their students comes from observation. Yetta Goodman coined the term "kid watcher" and it is clear that primary teachers are constantly watching their kids. Kid watching can take many forms from informal observation on the playground to systematic keeping of anecdotal records to more structured observations using checklists. In this section, we’ll examine how primary teachers can use anecdotal records and developmental checklists to monitor students' growth in the primary program.
The use of observation as a means of assessment has a number of advantages. For example, anecdotal records, developmental checklists, and other forms of observation:

- Provide teachers with a way of assessing how students interact with a complex environment both in and out of classrooms. Teachers gain a more valid understanding of what each student really knows and can do.

- Provide teachers with an efficient method of assessing students in many different situations over longer periods of time, thus increasing the reliability of the assessment data.

- Focus the teacher's attention on what the student can do, rather than on what the student has yet to learn.

- Provide a relatively stress-free form of evaluation for students, especially those students who become anxious when they take standardized tests.

**Anecdotal Records**

Anecdotal records are informal observations about what students are learning, how students are responding to instruction, or any other student behaviors, actions, or reactions that might provide teachers with some insight. Anecdotal records often focus on questions like:

- What can this child do?
- What does this child know?
- How does this child read, write, work on projects, work with others, or deal with other aspects of the primary program?
- What kinds of questions does the child have about his or her work?
- What does the child's attitude reveal about his or her growth and progress?
In addition, anecdotal records often include teacher comments and questions that are particularly useful in helping teachers become more reflective about their teaching. Yvonne Siu-Runyan offers a powerful example of how anecdotal records can help a teacher improve his or her instruction.

8/31/87 - Most of the children are struggling with their pieces. They want to write grand stories, but don’t know enough about their topics to write well. They want to write fiction, and not personal narratives which is what I think would make a difference to them.

9/2/87 - The students are abandoning pieces like mad. Even though I did a lesson on brainstorming ideas for writing topics, most are still struggling with topic choice.

9/8/87 - Thomas is writing a piece about war. It's really a replay of the war stories on television.

9/14/87 - I wish the kids were more invested in writing. They are wasting a lot of time because many don’t know what to write about. I am getting worried.

10/7/90 - Kids of concern: Zephyr, Tom, Travis, Geoff, Cara, Ashleigh, Lucas, John, Ben, Missy, Mel, Rojana, and Mike. These kids are still not invested in their writing. I'm beginning to feel like a failure.

When Yvonne reviewed her anecdotal records, she knew that she needed to respond to these children quickly. She also realized that she had not written with the children or modeled how literature helped her to write. She decided to try modeling the kinds of writing she wanted her students to learn. The following anecdotal records reveal what happened after she spent time modeling writing in response to literature.
10/14/87 - Lucas and Melissa are writing their own important stories. I am so pleased that they are trying their hand at this. Perhaps now others will use literature to help them learn about writing. Now to keep the momentum going. I must be careful about what books I choose to share. I must remember to select personal narratives with an obvious design. I think this will help the kids a lot.

10/20/87 - Read My Mom Travels A Lot (1981) by Caroline Feller Bauer. Discussed the design of the book. Created several stories verbally following the opposite design of this book. Today Cara developed her own story from the model presented. Great!

10/26/87 - Read Fortunately (1964) by Remy Charlip. The design of this book is very similar to My Mom Travels A Lot, except that the events are connected. Guess who decided to write a similar story? Cara. She's really taken off on using the opposite design pattern for her stories.

11/2/87 - Read If You Give A Mouse A Cookie (1985) by Laura Joffe Numeroff. Discussed circle plot structure with the class. Made up two stories verbally. Thomas is starting his own story modeled after this book. Wonderful. Thomas has had a hard time organizing his thoughts. I wonder how he will do.

Anecdotal records can be used in a variety of ways by teachers. For example, Sheri Cann at Saffell Street School in Lawrenceburg carries a clipboard with 3 X 5 index cards on it.

Each index card has a student's name on it and Sheri makes notes about what she sees. Here are some of her comments about a student we will call Susan:

- 3-8 Book of poems and poetry - best piece
- 3-9 Understands pronoun. Can find them in her writing & tell who they are talking about.
- 3-25 Good job with defending a point of view in the debate today.

Susan
Developmental checklists are a common and useful way of monitoring students’ progress in the primary program.

Carol Ledford uses anecdotal records as a key part of her system of conferencing. She organizes the records with a “post-it” system. After cutting a legal-size, manila folder in half, she taped one half of it into another legal size folder with duct tape. This creates a page in the middle, and when it is open, four pages on which to place the “post-it” notes. Carol places one post-it per student, already labeled with their names, in the folder. She records comments and observations on each child during their conference together. When the post-it notes are full, she places them in a large three-ring binder that has a section for each student.

As you can see, anecdotal records are notes that teachers make for their own use. They are simply another method that teachers can use to document their observations and support their professional judgements.

Developmental Checklists

Developmental checklists are a common and useful way of monitoring students’ progress in the primary program. A major reason for their appeal is that checklists can be used in a wide variety of situations in the primary school.

A checklist that many Kentucky teachers have found useful is an adaptation of a form developed by teachers in Maryland. This is a classroom survey that lists the children’s names down the left-hand side and five to six key questions across the top. The teacher surveys his or her class every few weeks to see how specific students are progressing. The example below is the adaptation that has proven useful to teachers in Lansdowne Elementary School:

<table>
<thead>
<tr>
<th>CLASSROOM SURVEY - READING and WRITING</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAME</td>
</tr>
<tr>
<td>------</td>
</tr>
<tr>
<td></td>
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<tr>
<td></td>
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<tr>
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</tbody>
</table>
Wheeler School has developed some checklists that can be easily used for projects, math, or writing.

WHEELER SCHOOL
PEANUT'S GANG

MATH ASSESSMENT

<table>
<thead>
<tr>
<th>Description</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Designs a strategy to solve the problem</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accuracy of operations</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Average score: __________

ASSESSMENT KEY

1- Novice
The student is beginning to show an understanding of new information or skills.

2- Apprentice
The student has gained more understanding, can do some important parts of the task.

3- Proficient
The student understands the major concepts, can do almost all of the task, and can communicate concepts clearly.

4- Distinguished
The student has a deep understanding of the concept or process and can complete all important parts of the task. The student can communicate well, think concretely and abstractly, and analyze and interpret data.

WHEELER SCHOOL
PEANUT'S GANG

WRITING ASSESSMENT

<table>
<thead>
<tr>
<th>Description</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expresses a thought</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uses proper formation (sentence, paragraph, etc.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approximates spelling</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Punctuation/Capitalizes</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Average score: __________

ASSESSMENT KEY

1- Novice
The student is beginning to show an understanding of new information.

WHEELER SCHOOL
PEANUT'S GANG

PROJECT ASSESSMENT

<table>
<thead>
<tr>
<th>Description</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clear statement of theme/problem</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organization of presentation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accuracy of information</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Originality/inventiveness of approach</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Average score: __________

ASSESSMENT KEY

1- Novice
The student is beginning to show an understanding of new information or skills.
Teachers interested in looking at other examples of developmental checklists will find lots of good ideas in the following sources:


Observing Students Reading with Running Records

No chapter on assessing young children's growth would be complete without a discussion of running records which were first developed by Marie Clay. To use running records a teacher sits next to a child as he or she reads and records the child's oral reading by marking a number of symbols on a separate sheet of paper. The child's oral reading is then analyzed to get some sense of the child's accuracy, use of self-corrections, and other reading strategies. Most teachers are familiar with IRIs (informal reading inventories) and running records are collected in a similar fashion. Running records are more flexible that IRIs, however, because they can be obtained using any real books that the child is using in class.

Here is a list of the recording symbols and a checklist for oral reading summary that appeared in Johnston's book *Constructive Evaluation of Literate Activity*. This book is a good source to learn more about running records, as is Clay's book *The Early Detection of Reading Difficulties*. Learning to take running records is well worth the effort.
# Oral Reading Summary

<table>
<thead>
<tr>
<th>Student</th>
<th>Teacher</th>
<th>Date</th>
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<tr>
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## Comments

<table>
<thead>
<tr>
<th>Accuracy Rate</th>
<th>Rate</th>
<th>Reading Rate</th>
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<table>
<thead>
<tr>
<th>Precautions</th>
<th>Comments</th>
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</table>

<table>
<thead>
<tr>
<th>Prediction</th>
<th>Self-correction (word)</th>
<th>Meaning*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<table>
<thead>
<tr>
<th>Rereads</th>
<th>Skips words</th>
<th>Skips words and returns</th>
<th>Uses phonics analysis</th>
<th>Uses context (meaning)</th>
</tr>
</thead>
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<table>
<thead>
<tr>
<th>Word/word match</th>
<th>Using illustrations</th>
<th>Talks sensible about text</th>
</tr>
</thead>
<tbody>
<tr>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

## Recording Symbols for Running Record

**General Format**

Child's response | Final response | Word in the text | Teacher Prompt | During Reading | After Reading |
<table>
<thead>
<tr>
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</tbody>
</table>

### Correct Response

- text word

### Omission

- text word

### Insertion

- spoken word
- spoken word

### Substitution

- spoken word
- spoken word
- text word

### Repetition

- text word
- text word

### Self-Correction

- error | SC | error | SC |
- text word | text word | text word | text word |

### Attempt

- attempt | attempt
- attempt | attempt

### Appeal for Help

- APP | APP
- text word | text word

### Teacher Prompt

- text word | T
- text word | T
- TA | TA

### Notes

1. Number of repetitions is recorded with a superscript. Size of repetition is recorded with a line from the R to the beginning of the repeated section.

---

**Interim Methods for Verifying Successful Completion of the Primary School**

Kentucky has developed a special type of developmental checklist that primary teachers can use in 1993 and 1994 as an interim method for verifying successful completion of the primary program while the Kentucky Early Learning Profile is being developed and field-tested. This checklist, known as the Kentucky Primary Program Student Information Form, identifies what students should know and be able to do by the time they have completed the primary program.
An example of the Kentucky Primary Program Student Information Form filled out for a fictitious student named Chris can be found in the Appendix.

The Kentucky Department of Education has been training primary teachers to use the Kentucky Primary Program Student Information Form in four steps:

**Step One**
During February and March, 1993, teachers completed an informal survey of all the students in their class using observation, anecdotal records, journals, work samples and other evaluation information gathered over the year.

**Step Two**
Teachers completed the Kentucky Primary Program Student Information Form for only those students whose progress indicated that they may benefit from more time in the primary program. The purpose of the Kentucky Primary Program Student Information Form was to help teachers focus on the important outcomes for the primary program.

**Step Three**
Teachers meet in small groups with other primary teachers and 4th-grade teachers to discuss the information they have gathered about specific children who may benefit from more time in the primary program. Administrators, special education teachers, and other support personnel may also take part in these discussions.

**Step Four**
Teachers meet with families to discuss whether their child would benefit by remaining in the primary program. This
meeting should take place at least 30 days before any decision would take effect. During the conferences, teachers and families should focus on:

- What the child can do.
- Examples of the child's writing, completed projects, audio/video tapes, records of the child's self-evaluation, logs of books read, and other samples of the child's work.
- Specific areas of accomplishment and/or concern.
- Classroom strategies that have been used in the past or planned for the future.
- Suggested activities that families can do at home.

It is important to note, again, that the Kentucky Primary Program Student Information Form and the four step process for using it are serving as an interim method for verifying successful completion of the primary program and will be replaced by the Kentucky Early Learning Profile in fall of 1994.

**Conferences**

In this section, we will examine conferences between teachers and students as another powerful tool for assessment in the primary program. Obviously, conferences can take place between teachers and parents and we will deal with those later in this chapter.

Conferences can be quick and informal or they can be a bit more structured and systematic. Informal conferences may last from three to four minutes and may focus on something interesting that the teacher has seen or overheard. More structured conferences may take a bit longer and follow a predictable pattern where students have a good idea of what is expected of them. For example, if the conference is over books read or papers written, then students are familiar with the kinds of questions that will be asked. The important point with conferences of all sorts, is that they should be conducted in a safe and comfortable manner so that students feel encouraged to take risks and share their ideas.
Student-teacher conferences are an important method of authentic assessment because they provide information about:

- What the student is learning.
- The student's understanding about reading, writing, mathematics, and other aspects of the primary program curriculum.
- The student's interests.
- The areas where the student needs help.
- What things the teacher is doing that the student feels is particularly helpful.
- What things the student would like to learn next.

Conferences are often centered around something specific - a book being read, a paper being written, a project being completed. Here are some examples of different kinds of conferences and the kinds of information that teachers can learn:

Reading Conferences

The teacher can listen to the student read, discuss a book that has been previously read, or talk about the student's book log. These activities enable a teacher to learn about:

- The strategies that the student uses.
- Whether the student reads for meaning.
- Whether the student is developing fluency.
- The student's interests.
- Whether the student selects reading materials of appropriate difficulty.
- Whether the student is reading a variety of genre.
- The student's progress in comprehending and retelling what has been read.
- The student's ability to justify an opinion about what has been read.
Writing Conferences

The teacher can help the student brainstorm topics to write about, discuss early drafts, listen to a student read a paper, or talk about which piece of work the student considers his or her best work. These activities enable teachers to learn:

- How the student is progressing in the use of the writing process.
- What the student knows about organization, topic development, mechanics, and spelling.
- Whether the student can effectively verbalize opinions, ideas, and feelings.
- Whether the student can write for a variety of purposes.
- Whether the student can edit drafts to a point where others can understand them.

Clearly, conferencing can be a useful form of assessment in any aspect of the primary program. As students talk about mathematics, social studies, art, and other activities and projects, then teachers can learn:

- What students need to learn next.
- Whether students can communicate what has been learned.
- Whether students can use appropriate terminology.
- Whether students can use strategies to solve real-life situations.
- Whether students can provide reasonable explanations for solutions and strategies.
Interviews are also a form of conferencing. Here are some sample interviews taken from Reggie Routman's excellent book Invitations.

**READING SURVEY**

<table>
<thead>
<tr>
<th>Name</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. How do you feel about reading?

2. Do you have a favorite author? Explain.

3. What kinds of books do you like to read?

4. What was your last favorite book? Explain.

5. Do you think it's important to be a good reader? Explain.

6. What do you do when you come to a word you can't read?

**GRAPH OF FAVORITE AUTHORS**

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Lucy</td>
<td>Asia</td>
<td>Sunny</td>
<td>Lance</td>
</tr>
<tr>
<td>Andrea</td>
<td>Pat</td>
<td>Tyler</td>
<td>Joe</td>
</tr>
</tbody>
</table>

**Writing Survey**

<table>
<thead>
<tr>
<th>I</th>
<th>I</th>
<th>I</th>
</tr>
</thead>
<tbody>
<tr>
<td>Like to write</td>
<td>with</td>
<td>me</td>
</tr>
<tr>
<td>My favorite kind of paper is</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My favorite place to write is</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My favorite time to write is</td>
<td></td>
<td></td>
</tr>
<tr>
<td>When I write, I like to hear</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>alone</td>
<td>to quiet</td>
</tr>
<tr>
<td></td>
<td>with others</td>
<td>to doing</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I like to write</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>make it easy for me to write in the classroom</td>
<td></td>
</tr>
</tbody>
</table>
COMMUNICATING WITH PARENTS

Qualitative reporting and positive parent involvement are crucial components of successful primary programs. Qualitative reporting means that the focus of assessment is on the growth and development of the whole child, and that information about each child's progress is communicated to families through a rich variety of methods. Positive parent involvement means that parents are encouraged to take an active role in their children's education by participating in school activities, learning about the primary program, helping their children learn at home, and - most important in terms of this chapter - becoming a partner in the assessment process.

Primary teachers can communicate with families in a number of ways. In this chapter, we are going to focus on two ways: 1) Parent/Teacher Conferences; and 2) Report Cards.

Parent/Teacher Conferences

Parent-teacher conferences, like student-teacher conferences, work best when they focus on specific examples of the student's work-portfolios, work samples, projects, and presentations. Indeed, one of the most important reasons for moving to authentic assessment is that it provides such a rich basis of discussion. Tierney, Carter, & Desai offer these suggestions for parent-teacher conferences. Their guidelines are for conferences that center around portfolios, but these are useful guidelines for building parent-teacher partnerships in general.

1. Give the parents advance notice that you will be contacting them about setting up a conference.

2. Invite parents either by phone, face to face, or in conjunction with pre-established parental evenings.

3. Have on hand the student's portfolio and other relevant information such as his or her ongoing folder.

4. Create a situation that is comfortable, non-threatening, and that allows you to work collaboratively with the parent. Sit side-by side.
Helping parents learn how to assess their children’s development can eliminate many of the misconceptions and misinterpretations that occur during parent-teacher conferences or report card time.

5. Keep the focus on having a conversation about the child. Some of the areas that you might discuss are: the types of stories and reports that the child likes reading and writing; particular interests of the child that might be drawn upon; how the child spends her or his time outside of school and the types of interactions he or she has with siblings and parents; changes that the parents and you have observed; opportunities that the parents might pursue at home; opportunities that the parents would like for their child; and so on.

6. Ask open-ended questions, ask parents to expand upon points, ask them to provide illustrations, as you talk about the child’s progress refer to the portfolio and related forms upon which you have been keeping tabs on their child.

7. Pull together the conference in some form of collaborative summary for both yourself and the parent to keep. Write up a summary as part of your ongoing literacy portfolio for the child. In future conferences, you can refer back to the summary.

Fredericks and Rasinski offer some suggestions for involving parents in the assessment process that would enrich any parent-teacher conference. These two researchers argue that helping parents learn how to assess their children’s development can eliminate many of the misconceptions and misinterpretations that occur during parent-teacher conferences or report card time. Here are some ideas adapted from the suggestions in their article.

Teachers can help parents become partners in the assessment process by:

- Asking parents about their expectations for their child at the beginning of the school year. Ask parents about what specific kinds of progress they would like to see. Record the parents’ responses to these questions and refer to them on a regular basis.
- Providing parents with a weekly summary sheet so that they can record their observations about their children’s growth. "What were some positive things you noticed about your child's reading or writing this week?,” or “How is your child’s attitude towards school this week?” are some questions that might prove useful.

- Providing parents with opportunities to visit the classroom and observe the primary program first hand. Ask parents to evaluate their children's performance in the class and keep these evaluations in a portfolio to share later in the year.

Providing parents with observation guides to use while they are visiting the classroom can be a very powerful tool for increasing parents understanding of their children in particular, and the primary program in general. Here are three examples of observation guides for parents. These examples were taken or adapted from the Primary Program: Resource Document (Province of British Columbia).

---

### Parent Observation Guide

Dear Parent(s):

Welcome to our Primary classroom. While you are visiting you might like to observe your child working with me, with other children, and on his or her own.

You may wish to look for, and note some on, some or all of the following points as you observe your child:

- Which activities did your child choose?
- Does your child like to work by himself/herself?
- How long does your child stay with a particular activity?
- Does your child listen to and follow directions?
- How does your child interact with other children?
- How does your child share and react with other children?
- Does your child represent helpful ideas in different ways? (e.g. writing, drawing, constructing?)
- Is your child able to organize and care for his/her things?
- What changes have you noticed in your child since you last saw us?
- What are some special things about your child you would tell me? (Jot down your thoughts and we can talk later.)
- How did you feel, observed in the classroom, other comments or questions do you have? Jot down your thoughts and we can talk about them later.
- What did your child learn or confirm about your child after observing today? (e.g. I’m not the only person who can divide.)

---

### Parent Observation Guide

<table>
<thead>
<tr>
<th>What my child can do:</th>
<th>What I noticed about my child as they were working</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

What I wondered about during my visit:

---

### Progress Towards KERA'S Six Learning Goals

- Goal 1: Applying Basic Skills
- Goal 2: Applying Core Concepts
- Goal 3: Engaging in Problem Solving
- Goal 4: Becoming a Team Member
- Goal 5: Becoming Self-Sufficient
- Goal 6: Integrating what’s learned in school into one’s own life

Child’s Name: __________________________

Date: __________________________
Developing attitudinal scales and observational guides that can be used at home will help parents gain a broader view of how their children are developing. Here are two that Fredericks and Rasinki suggest for use in reading.

![Attitudinal scale for parents](Figure 1)

<table>
<thead>
<tr>
<th>Child's name:</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>My child:</strong></td>
<td></td>
</tr>
<tr>
<td>1. Understands more of what he/she reads</td>
<td>A B C D</td>
</tr>
<tr>
<td>2. Finds time for quiet reading at home</td>
<td>A B C D</td>
</tr>
<tr>
<td>3. Sometimes guesses at words, but they usually make sense</td>
<td>A B C D</td>
</tr>
<tr>
<td>4. Can provide a summary of stories read</td>
<td>A B C D</td>
</tr>
<tr>
<td>5. Has a good attitude about reading</td>
<td>A B C D</td>
</tr>
<tr>
<td>6. Uses study skills (e.g., note-taking, organizing time, etc.) regularly</td>
<td>A B C D</td>
</tr>
<tr>
<td>7. Is able to complete homework assignments</td>
<td>A B C D</td>
</tr>
<tr>
<td><strong>Strengths I see:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Areas that need improvement:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Concerns or questions I have:</strong></td>
<td></td>
</tr>
</tbody>
</table>

![Observation guide for parents](Figure 2)

<table>
<thead>
<tr>
<th>Child's name:</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>My child:</strong></td>
<td></td>
</tr>
<tr>
<td>1. Reads from a wide variety of materials such as books, magazines, newspapers, etc.</td>
<td></td>
</tr>
<tr>
<td>2. Takes time during each day to read in a quiet place</td>
<td></td>
</tr>
<tr>
<td>3. Talks with family members about the things he/she is reading</td>
<td></td>
</tr>
<tr>
<td>4. Finds reading to be an exciting way to learn about the world</td>
<td></td>
</tr>
<tr>
<td>5. Brings home books and other reading materials from the school or public library</td>
<td></td>
</tr>
<tr>
<td>6. Seems to understand more of what he/she reads at home</td>
<td></td>
</tr>
<tr>
<td>7. Tries to discover new words and uses them in his/her conversations</td>
<td></td>
</tr>
<tr>
<td>8. Seems to have developed higher-level thinking skills</td>
<td></td>
</tr>
<tr>
<td>9. Uses study skills (e.g., note-taking, organizing time, etc.) regularly</td>
<td></td>
</tr>
<tr>
<td>10. Has shown improvement in his/her reading ability since the last report</td>
<td></td>
</tr>
<tr>
<td><strong>My child would be a better reader if:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>My child's greatest strength in reading is:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>By the next report my child should learn:</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Signature**
Report Cards

Changing report cards to accurately communicate a child's progress in the primary program is one of the most important challenges facing primary teachers. The following suggestions may prove helpful to teachers and principals as they revise their report cards to reflect the primary program. In general, report cards should:

- Include a clear statement of the philosophy and the goals of the primary program.
- Focus on the child's growth in all areas.
- Avoid blame and harmful labels.
- Accentuate the developmental nature of learning.
- Address areas of concern (if and when they are identified) in a constructive manner.
- Include space for narrative descriptions written by the teacher.
- Include space where parents can comment and respond.

The Red Sandstone Elementary Progress Report is a good example of a qualitative progress report. Note how the first page provides a clear statement of the kindergarten teachers' philosophy that teachers and parents are partners with a common interest in ensuring that the student will have a successful experience in school. In addition, the philosophy statement stresses the importance of viewing each child's progress in terms of his or her own personal growth.

The main body of the Red Sandstone Elementary Progress Report presents the goals for social development and work habits that these teachers consider important. Parents get a clear idea of what is involved in the curriculum and what is expected of their children.

The Red Sandstone Elementary Progress Report also emphasizes the developmental nature of learning. Note that “+” means the behavior is shown and a “✓” means the behavior is not yet shown. This simple marking system is an improvement over traditional marking systems that use “satisfactory” or “unsatisfactory” or letter grades like “A,” “B,” “C,” and “F.” Terms like unsatisfactory or letter
grades like “F” imply that young students are failures. A “✓” = Not yet shown, in contrast, implies that the student still has time to grow and that you expect him or her to do so.

The move from letter grades to scoring systems that communicate the developmental nature of how young children learn is crucial. Clearly, there are times when older students do poorly on their coursework or adults fail to master certain content. The training of airline pilots, for example, should include some grading system where those pilots who have learned well are separated from those who have not learned well. But a key part of the philosophy underlying the primary program is that it is wrong to characterize young children as failures because they lack certain kinds of knowledge or cannot do specific tasks. Rather, they are inexperienced and need more support and opportunities to grow.

++ Is shown    ✓= Not yet shown

SOCIAL DEVELOPMENT AND WORK HABITS

I share with others and take turns.
I play and work well in a group.
I play and work well alone.
I take part in a variety of activities.

I listen and follow directions.
I listen when others are speaking.
I take responsibility for helping others.
I take responsibility for cleaning up.

I am involved in group experiences.
I can demonstrate self control.
I respect myself and others.
I take pride in what I do.

I share classroom responsibilities.
I can put on and take off outdoor clothing, by myself.
I am involved in singing and music activities.
I participate in P.E. activities.

RED STONE ELEMENTARY
Kindergarten Progress Report

We are partners, with your children as a common interest.
Together we would like to:
• help children develop a positive attitude toward school.
• help children participate as members of a community of learners.
• help children achieve their individual potential in all areas of development.

No two children are alike, and it is important that we recognize and respect their individual differences. Each child’s progress is seen in terms of his/her own personal growth.

Working together toward these goals will help ensure a successful kindergarten experience.

The Kindergarten Teachers

Linda Stephens
Carol Gallegos
Anita Mirels

Eagle Valley, Colorado
The Saffell Street School Primary Progress Report is another creative example of a report card that is appropriate for use in the Primary Program. A sample of this report is contained in the Appendix.

The Saffell Street Progress Report is a good illustration for a number of reasons. First, the teachers have identified the important goals in their curriculum. For example, they want their students to:

- Display an interest in reading and writing.
- Engage in important classroom activities including Super Silent Reading, group reading, reading discussion, and writing workshop.
- Apply important skills and strategies in reading, writing, math, listening, and speaking.
- Develop appropriate personal and social behaviors.

The teachers at Saffell Street School use rubrics to help parents understand the developmental nature of learning. Let's see why rubrics are so useful.

<table>
<thead>
<tr>
<th>DURING READING DISCUSSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carries on a meaningful conversation about reading</td>
</tr>
</tbody>
</table>

The continuum that is represented under this goal helps parents see what kinds of developmental behaviors teachers are looking for as children grow. **Beginning** students are unable to clearly express their thoughts about what they have read. **Developing** students can answer questions about what they have read, but teachers still must provide some modeling and support. **Independent** students can discuss what they have read with ease and confidence.
Rubrics like these are very easy to develop.

Identify a key instructional task or activity in your classroom (e.g., group reading, writing workshops, cooperative groups working on projects, etc.).

Think about some specific students in your class who do very well on this task or activity. Write down some descriptive phrases that captures what they do. These phrases should be placed at the left side of the rubric.

Now think about some specific students in your class who have yet to learn how to complete the task or participate in the activity. Write down some descriptive phrases that captures what they do (or cannot do). These phrases should be placed at the right side of the rubric.

Finally, fill in the middle of the rubric with phrases that describe students who can do the task or activity occasionally or with support.

The Saffell Street School Primary Progress Report includes spaces for narratives written by the teacher. These brief reports help parents gain a more personal view of their child. Here are some examples of what the teachers wrote about students we'll call Tom and Jenny:

“I love having reading conferences with Tom. He has really begun to be able to discuss a book. He comprehends the story well. We discussed character feelings in Fuzzy Rabbit. He is excellent at reading silently to answer content questions. His oral reading is very fluent and improved.”
"Jenny says she likes looking at books and reading but she doesn't like to read at home. She would be helped a great deal if she would just read 10 minutes a night (read to her). Her goal in reading is to get books she could read."

The Saffell Street School Primary Progress Report also includes a place for parents to write a home goal for the student. Here is what Tom's mother wrote:

"Thanks for the report. We'll work with Tom on speaking in front of people and telling stories."

The opportunity for parent responses provides teachers with some important insights about the children and their families. Consider these examples from different parents:

"My goals for L—— is to have more individual time with her, to have her read to me more and to let her help me cook more (she likes that). She and I made banana bread a few weeks ago. She helped me follow the recipe, get ingredients prepared, and clean up. We had a good time."

"I don't know what's happening but A——'s not wanting to go to school now, he says he is bored. He has been complaining for about the last 2 weeks. I told him to talk to you but of course he won't. I don't know what to do."

"I let B—— know that I am very proud of him. He has done very well. My home goal is to help B—— with his behavior and working with others. Thank you."
SUMMARY

Assessment in the primary program is based upon the teachers' ability to converse with children and their families, and to watch children as they read, write, interact with others and engage in all the activities available in a developmentally appropriate curriculum. Portfolios, anecdotal records, observational checklists, student-teacher conferences, parent-teacher conferences, and report cards are simply tools and techniques to help teachers become more effective at communication and observation.

The ideas and suggestions in this chapter are to be used flexibly and creatively. Like the primary program itself, there are no fixed rules or absolutes when it comes to the assessment of young children. In the end, assessment is effective only to the extent that it helps teachers and parents create an environment that nurtures and enhances young children's growth.
REFERENCES


8. FAMILY INVOLVEMENT

MAKING A DIFFERENCE

In a corner that is somewhat secluded from the rest of the classroom, a woman sits on the floor reading to a small group of children. The children are seated informally around her...one child sits atop a tall stool, oblivious to the precarious nature of his perch; two other children lean companionably on one another’s shoulders; and still another is tucked mole-like between two bookshelves. Regardless of their position, each child is absorbed in the words and pictures of the story.

With the concluding words, “It had been a very, very, busy day.” the woman looks away from the book and with a small but satisfied sigh says, “It’s been a busy, busy day for us, too. That’s the fifth Eric Carle book that we’ve read today.” The smiles on the children’s and her own face, confirm that, in addition to being a busy day it has also been a satisfying one.

Who is this woman? Is she a teacher, classroom aide, or member of the ancillary staff? Although she can be found each Wednesday afternoon in this same corner reading to children, this individual is not an employee of the school. She is a parent volunteer. This mother is representative of the growing number of parents, teachers, and administrators, who understand the critical link between family involvement and children's success in school.
THE BENEFITS OF FAMILY INVOLVEMENT

Although the mother in the previous example would undoubtedly cite personal reasons for volunteering ("I like knowing what is going on in my child's classroom," or "Helping out makes me feel useful."), the benefits of family involvement go far beyond personal reasons. The following list highlights the many benefits of family involvement to children, parents, teachers, and schools.

**Benefits for Children**

- Higher test scores
- Long-term achievement
- Positive attitudes and behavior
- Greater student motivation
- Increased and more regular attendance
- Lower student dropout rates
- Positive attitude toward homework
- Increased parent and community support

**Benefits for Parents**

- Greater appreciation of importance of parent's role in education of child
- Greater knowledge of educational goals and programs of school
- Increased literacy and math skills of parent
- Increased self-esteem
- Increased feelings of empowerment, an "I can make a difference" attitude

**Benefits for Teachers/Schools**

- Greater support from parents and community...both financial and emotional
- Increased cooperation from both parents and students
- Decrease in misunderstandings
- Greater levels of trust between parents and students
- Greater knowledge of students in context of family

**Benefits for All**

- Increased Learning
- Effective Schools
As this list of benefits shows, the advantages of family involvement go far beyond the walls of the primary school. It is, however, in those early years of children’s education that the foundation for future successes is built. During the primary school years when patterns, habits, and attitudes toward learning are being formed, it is crucial to develop a strong family-school link. A close and positive relationship between the home and school during the primary years not only sets the stage for future student achievement but provides a basis for continued family involvement and support of schools.

TODAY’S FAMILY

Earlier in this chapter, you may have noticed that the phrase, “family involvement,” is used in place of the more familiar “parent involvement.” This substitution is deliberate and reflects the changing demographics of today’s families. Statistics show that a majority of mothers work outside the home; single parenting is on the rise; and the number of children living in poverty has increased from 16% of the population in 1979 to approximately 21% in 1990. Although the percentage of Kentucky children living in poverty has declined 7% since 1985, Kentucky’s poverty rate for children, at 22%, still ranks above the national average. Coupled with the fact that Kentucky ranks 32nd among the 50 states on 10 factors used to measure the condition of children, this figure highlights the enormous number of problems confronting many children in this state.

Faced with these changing social patterns, schools can no longer define parent involvement in terms of the mythical “Leave It To Beaver” household of Fifties' television. In contrast, family involvement initiatives of the nineties must:

- Recognize no single pattern for “normal” family development.
- Acknowledge the importance of extended family members (grandparents, stepparents, noncustodial parents, babysitters, and neighbors).
- Celebrate the strengths of diversity within and among families.
The term "family involvement" also recognizes that children are active, Decision Making members of the learning team. If the school-home link is to be effective, programs must be designed with children not simply for children.

Does this mean the term, "parent," will not appear in this chapter? The answer is no; the word, "parent," will be used frequently. Its usage, however, will reflect the same broad definition as the word, "family." Like "family," the term, "parent" will refer to the primary caregivers in children's lives and will not be bounded by biological or legal restrictions.

The remainder of this chapter takes a pragmatic approach toward family involvement. The next section deals with a variety of "tips" designed to help teachers, administrators, and parents develop family involvement programs in their schools. The final section features descriptions of specific family involvement programs that are presently at work in Kentucky schools. We encourage you to use the ideas in both these sections as springboards as you begin to develop programs that serve the unique needs of your school population.

EDUCATION - A SHARED RESPONSIBILITY

Family involvement is based on sharing...sharing information, concerns, responsibility, and power. Traditionally, family involvement programs have focused primarily on the first of these areas, sharing information and concerns. In contrast, the Kentucky Educational Reform Act advocates a much more active role for the family, proposing that families become full partners in the education of their children. The election of parents to School Based Decision Making Councils is one example of parents assuming roles of responsibility and power. As members of these councils, they take an active role in deciding a variety of critical issues ranging from policy and curricular concerns to financial considerations. On a more personal level, parents are becoming more involved in both instructional and assessment decisions regarding their children.
GETTING STARTED...

Although there is no single formula for implementing a successful family involvement program, the following are tips that have proved useful in other schools.

• Whether you are acting as an individual classroom teacher or as a part of a school-wide effort, put the concept, "a shared responsibility," to work immediately. Enlist the help of a parent or a group of parents to serve on a planning committee.

• Make communication a two-way street. Listen to the needs of families; a needs assessment via the phone or mail may be a vital first project for the organizing committee. Identify a common parent concern and act upon it immediately. Swift action will establish your credibility. Below is an example of a parent feedback survey developed by Summit Elementary School.

**Parent Feedback Survey**

**Dear Parents,**

This questionnaire is designed to find out how we are meeting the needs of families in our Primary program. Your candid and honest responses will enable us to improve communication and services for and your child. It is not necessary to put your name on this form. Circle the numeral from 1 (strongly disagree) that best represents your feelings regarding each of the statements below.

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I have received adequate information about the Primary program operation.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. My child enjoys coming to school because of the program.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Teachers encourage me to be actively involved in my child’s learning.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. I am regularly informed about my child’s development.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Classroom newsletters and teachers’ written notes keep me well informed.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. I have had sufficient opportunity for informal conversations with the teaching and administrative staff.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. My parent-teacher conferences have provided me with useful insights about my child.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. I have been invited to participate in classroom activities and field trips.</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

How has your child benefited from his/her experience in the Primary program?

In what ways could we improve the program to better meet your child’s needs?
• Check your school for barriers - real or imagined - that may discourage active family involvement. Included in Appendix A is a survey that may be useful in assessing barriers to family involvement. Ask yourself the questions on this survey and determine your school’s “openness quotient.”

• Use a variety of recruitment techniques - But remember, nothing works like personal contact.

• Make recruitment of “Dads” (significant male) a priority. “Dads” represent a vast untapped resource. Hint: Many “Dads” (and “Moms” too) prefer short-term, action projects rather than attending meetings. Projects of this type may include reading to individual or small groups of children, helping children publish books, building playground equipment, or painting a classroom mural.

• Ask parents where their interests and talents lie. But do not stop there...put those talents to work today! For those parents who show interest (and maybe for those who do not) but are unsure of what they can do, be prepared with a list of specific suggestions.

• MAKE THE FIRST EVENT FUN. Initial contact needs to be warm, comfortable, and beneficial to the family. BUT...Remember “one shot” affairs designed as public relations tools are only a beginning. Home-school involvement requires a long-term commitment from both the school and home.
LEVELS OF FAMILY INVOLVEMENT

As you begin to plan your family involvement program, it is important to understand that there are different levels of involvement. The following hierarchy is helpful when thinking about the various levels of family involvement.

EMPOWER

PARTICIPATE

INFORM

MONITOR

The first level and the one that represents the least amount of involvement between home and school is "monitoring." Monitoring can best be described as awareness - awareness on the part of the parent regarding what is happening at school and awareness on the part of the teacher regarding circumstances in the home. Contact at this level is characterized by its informal and to some extent sporadic nature. The importance of monitoring to higher levels of family involvement should not be minimized, for it is at this level that feelings of mutual trust and self-respect are established.

Although the second and third levels - to inform and to participate - are traditional forms of involvement, changes in the family and school structures have meant changes in the types of activities at each of these levels. In most cases, the result has been a shift toward a more active and responsible role for the parent.

The parent/teacher conference is an example of an activity at the informational level that is undergoing such a shift. Traditionally, this meeting was designed as a means of informing parents of their child's progress; information flowed from the teacher to the parent. With few exceptions, the discussion was controlled and orchestrated by the teacher. Today, the shift is toward dialogue; teachers are asking parents to participate in the assessment process and to share their

Mutual respect and trust are the foundations for all levels of family involvement.
insights into their child's growth. You will find an assortment of parent observation guides in Chapter 7 of this text. They are useful tools to help parents assess their child’s growth in a variety of areas.

A second activity at the participation level is volunteerism. It, like the parent/teacher conference, is changing. Under the auspices of the KERA mandate, traditional roles of volunteers, such as room mother or clerical aide, are being re-thought. Although parent volunteers may continue to work in these capacities, teachers are discovering a more valuable role for parents, which is working with children. Reading to individuals or small groups of children, assisting in book publishing, and sharing specialized skills are examples of the expanded role of the parent volunteer.

The highest level of family involvement is empowerment; only at this level is a true and equal partnership between home and school attained. At this level, both parents and teachers act as decision makers. Membership on School Based Decision Making Councils was suggested earlier as one example of involvement at this level. A second example of involvement at the empowerment level is participation in parent workshops. Topics for these workshops might include “Reading Aloud to Your Child,” “Incorporating Open Ended Questions into Discussions,” or “Using Everyday Objects as Math Manipulatives.” Based on the understanding that knowledge is power, these workshops help parents where it counts most...in their own homes, with their own children.

Although there are no short cuts in the process of bringing families and schools together for the purpose of helping children, the following concepts are helpful guides to keep in mind as you build programs.

- The highest level of involvement, empowerment, is based on attainment of levels one through three. Assess the present level of family involvement in your school and build from that point.
- Not all parents will wish to take part at the participation and empowerment level; this is okay. Welcome participation at all levels.
- Keep in mind that empowerment is the goal of your program.

EXAMPLES OF FAMILY INVOLVEMENT PROJECTS

LEVEL 1

To Monitor: This level deals with awareness of the home/school situation. Activities at this level include informal chats, personal letters, and phone calls.

A Positive Note

Start the year off on a positive note...or should I say, start the year off with a positive note. Sometime during the summer months, mail a postcard to new students introducing yourself and welcoming them to your classroom. For those students who were in your room the previous year, simply remind them that you are thinking of them and looking forward to their return in the fall. The benefits of this easy activity are three-fold. It sends the message to the child and parents that you care about them; the students love receiving mail; and you demonstrate the importance of literacy to daily life.

A Warm Welcome

Kelly Sherkat, Warner Elementary

Parents need never wonder if they are welcome in Ms. Sherkat’s primary classroom. Near the entrance of her room is a prominent sign that announces, “Welcome Parents.” Lest parents think this sign a token gesture, a steaming coffee pot beneath the sign affirms the sincerity of this welcome.
In addition to the refreshments, Ms. Sherkat also serves up a helping of “food” for the intellect. Alongside the coffeepot, is a variety of informational brochures related to ways parents can support their children’s learning. In addition to these brochures, she includes parent observation sheets to help make their visit more meaningful. The following is a sample of a parent brochure that Ms. Sherkat developed.

**Parent brochures are “food” for the intellect.**

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**SUGGESTED BOOKS**

- Alexander and the Terrible, Horrible, No Good, Very Bad Day
  By Judith Viorst
  K through 3, 64 pages

- Amelia Bedelia
  By Peggy Parish
  K through 4, 24 pages

- The Day the Crayons Quit
  By Anthony Browne
  Pre-K through 2, 32 pages

- Dr. Seuss's The Cat in the Hat
  By Dr. Seuss
  K through 2, 30 pages

- The Giving Tree
  By Shel Silverstein
  K through 4, 62 pages

- Here Anderson's Fairy Tales
  Translated by L. W. Kingsbury
  Gr. 1 and up, 366 pages

- If I Ran the Zoo
  By Dr. Seuss
  Pre-K through 4, 64 pages

- Some Fox
  By John R. Brown
  Gr. 1 through 7, 36 pages

- He Sleeps Over
  By Bernard Waber
  K through 6, 48 pages

- The Jelly Bean Man
  By Janet and Alan Ahlberg
  Gr. 1 through 4, 54 pages

- Mike Mulligan and His Steam Shovel
  By Virginia Lee Burton
  K through 4, 42 pages

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**GETTING INVOLVED AT YOUR CHILD’S SCHOOL**

Encourage your child to talk about the books read at home.

Volunteer to read to your child's class — it shows that all people read, wherever they do.

Share your suggestions and ideas with your child's teacher.

Talk often with your child about good books.

Record stories for children's listening.

Make story puppets.

Construct and/or set up learning centers.

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**BENEFITS**

- Move fluent reading
- Encourages independent reading
- Builds interest
- Motivates
- Builds comprehension and vocabulary
- Enhances oral language
- Enhances writing skills
- Promotes observation
- Builds general knowledge
- Develops self-confidence in reading

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**WHAT TO DO**

- Find a special time to read aloud to your child every day.
- Let your child choose from different kinds of books.
- Use books without words to tell a story from the pictures.
- Once in a while read from books that take more than one day to finish.
- Allow your child to get settled and comfortable before reading.
- Use plenty of expression when reading.
- Read slowly enough so the pictures can be seen and enjoyed.
- Connect stories read to family experiences and interests.
- Allow interruptions for questions and comments about the story.
- Read favorite books again and again.
- Read to children of all ages.
- Make sure your child sees you reading for pleasure.
- Talk about what you read.
- Try to set aside a time when all family members can read together.
- Get your child a library card and use it often.
- Encourage your child to read alone.

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From Teacher to Parent: A Guide to Reading Aloud

Compiled by Kelly Sherkat
LEVEL 2

To Inform: The informational level differs from the monitoring level in that communication is formalized. Activities at this level include newsletters, videos, and conferences.

Newsletters

The school newsletter has for many years been an effective means of communicating information from the school to families. As schools begin implementation of the primary school, many changes are occurring and the need to communicate information about these changes to families (and the community at large) is more important than ever. As a result, the newsletter is more important than ever.

Thanks to desktop publishing, newsletters are not only attractive and informative but easy to produce. The Appendix contains a small sample of representative newsletters. Each varies in scope and sophistication. One is a weekly publication sent home from the classroom teacher to inform parents of units of study, field trips, and other tidbits of news pertinent to that classroom. The second example is only a section of a larger publication produced by a team of teachers. Its goal, much like the first newsletter, is to inform families of information related to the students and their activities in the classroom. This publication, however, goes one step further. It includes information related to educational issues that relate to the primary school. The third and final newsletter is a district-wide publication. While less personal and more costly to produce than the first two, it demonstrates how this form of communication can be used as an effective means of conveying information to a large audience.

One final tip...If you are considering publishing a newsletter, be sure to include parents on your publication team. It lightens the burden and gets parents involved.
Commercial Pamphlets and Brochures

Although in-school publications, e.g., newsletters and informational pamphlets, have a relevancy that commercial pamphlets and brochures do not, they are labor intensive and time consuming to produce. When time and manpower are factors, commercial products are a practical option. This type of material is particularly effective when they are used in conjunction with a parent workshop, program, or conference. Richard Williams, principal of Warner Elementary, keeps a stack of reading brochures for parents on the counter next to the visitors' sign-in book.

SOURCES OF LOW COST AND QUALITY PUBLICATIONS INCLUDE:

International Reading Association; 800 Barksdale Road; PO Box 8139; Newark, Delaware 19714-8139; 1-800-336-READ Ext. 266; Fax: 1-302-731-1057

ALA Graphics; American Library Association; 50 East Huron Street; Chicago, Illinois 60611; 1-800-545-2433; Fax: 1-312-440-9374

Upstart (For reading promotions); 32 East Avenue; Hagerstown, Maryland 21740; 1-800-448-4887

Kentucky Department of Education; Division of Early Childhood; Capital Plaza Tower; 500 Mero Street; Frankfort, Kentucky; 1-502-564-3064

Educators may also use published articles as sources of information for parents. However, keep in mind the following guidelines if you use this type of material.

- Check copyright laws before you duplicate material.
- Be sure you give proper credit to the author of the material. Whether you photocopy the article or a part of the article or simply use the ideas, cite the author and source of the information.
Below is a portion of an article that appeared in Newsweek (April 17, 1989) magazine. It makes an effective parent handout.

A Primer for Parents
When visiting a school, trust your eyes. What you see is what your child is going to get.

- Teachers should talk to small groups of children or individual youngsters; they shouldn't just lecture.
- Children should be working on projects, active experiments and play; they shouldn't be at their desks all day filling in workbooks.
- Children should be dictating and writing their own stories or reading real books.
- The classroom layout should have reading and art areas and space for children to work in groups.
- Children should create freehand artwork, not just color or paste together adult drawings.
- Most importantly, watch the children's faces. Are they intellectually engaged, eager and happy? If they look bored or scared, they probably are.

Videotape a New Program

Debbie Brown, Model Laboratory School

When Ms. Brown reorganized her classroom and curriculum to reflect Howard Gardner's theory of multiple intelligences, she decided that a picture was truly worth a thousand words. With the help of her student teacher and a borrowed video camera, she videotaped an introduction to each of the centers in her classroom. The videotaping took place while children were working at daily assignments; it required no other equipment besides the video camera and tape; and it took approximately 30 minutes to produce. The tape is available to parents for viewing at home. It has not only helped to sell her program but to avoid the misunderstandings and anxiety that often occur when new programs are instituted. Other potential topics for videotaping include an overview of your new primary program lessons related to whole language, process science and math, cooperative learning, and process writing.
Regardless of the topic, Ms. Brown offers the following tip when videotaping. "Be sure that a clear explanation of what is happening and why it is happening is included." She accomplished this by a simple introduction and conclusion to the tape. If you have access to more sophisticated equipment, a voiceover may be added to the tape after filming.

Good communication between school and home has many bonuses. When one parent heard that Ms. Brown was interested in documenting student progress through the use of videotaping, she loaned her a video camera...not for the day but for the entire year!

LEVEL 3

To Participate: This level requires involvement in children's learning. Participation at this level may occur at home or at school.

Reading Homework

Primary Teachers at Bourbon County Schools

For Bourbon County primary school teachers, reading is a top priority. To instill the reading habit at home as well as at school, many primary teachers require their students to read a minimum number of pages or minutes per day...weekends included! Written reports on readings are not required, but reading times are validated each week by the parents. This type of homework is popular with parents, teachers, and students alike because it emphasizes both the importance and fun of reading.
A reading log, like the one displayed below, is a handy recording tool. As a nice touch, include on the back of the calendar a list of suggested books. Tips related to reading may also be included.

![Reading Log](image)

### Family involvement projects, like the writer's workshop, are successful because they serve the needs of students, parents, and schools.

**Writer's Workshop**

Karen Adkins, Millard Elementary

Extra hands are always in demand during writer's workshop. For Karen Adkins the solution to this manpower shortage is parent volunteers. They help children select their favorite stories; they type stories into the computer; and they assist in the assembly of the finished books. Parents who are not able to work in the classroom, also contribute to the publishing process by making book covers and blank books at home.

The success of this program rests on the fact that it serves everyone. Students are given individualized assistance and as a result are able to publish more books; parents enjoy working with the students and by doing so learn about process writing; and Ms. Adkins has the satisfaction that she is helping both her students and parents.
The Reading Bag and Writer's Briefcase

Genevieve Slone, W.D. Osborne Elementary

The Reading Bag and Writer's Briefcase are two ways that Genevieve Slone involves parents in their child's learning.

The Reading Bag, which consists of a book and a puppet, provides families with the opportunity to break away from the individual pressures of the day and to relax together with a good story. After reading the story, families are encouraged to respond to the book in some manner. At this stage, the puppet often comes in handy. Somehow it is often easier to express emotions or to make up dialogue using this convenient prop.

The Writer's Briefcase places the family in the role of author. Choosing from an assortment of writing and drawing materials within the case, students create a book with the help of their family. When the book is finished, it is sent back to school where it is read aloud to the entire class. After the initial sharing, the book becomes a part of the class library, where it can be enjoyed and shared many times over.

These activities have been particularly successful because they not only provide students with an opportunity to practice skills used within the classroom but acquaint parents with a meaning based approach to learning.

Parent Storytapes

Storytapes are an ideal way for parents, who are unable to get away from work, to be a part of the classroom. The only equipment necessary is a tape recorder, blank tape, a favorite book, and a willing spirit. Readers simply record the story on tape and then send it back to school. As a special touch, encourage parents to include an explanation of why they chose the book and/or any other comments that are relevant to the story.
Level 4

To Empower: At this level, parents are decision makers and co-owners in their children's education. Activities at this level include membership on School Based Decision Making Councils and parent education activities.

Although School Based Decision Making Councils represent a high level of parent empowerment, they are limited by their very organization. Organizational limitations include: 1) only two parents may serve at any given time; 2) members must be elected; and 3) membership requires a commitment of time and energy that many parents are not able to make. Since the goal of KERA is to empower all parents, a more personal approach is necessary. Parent education represents one approach that empowers parents at this personal level. Advantages of this approach include:

- Parents see a reason for participating; they are helping their own children.
- Parent education makes parents feel more confident, and a confident parent is much more likely to participate in their children's education.
- Parent education can take many forms. Parents may participate at home or at school.
- Time commitments are minimal and in most cases flexible. With the exception of workshop attendance, parents work at home and at their own convenience.
- Parent education requires very little money, but reaps many in benefits.
- The ramifications of parent education programs go far beyond helping one child and one parent. Other siblings often benefit from the knowledge parents have gained.

The remainder of this section describes three types of parent involvement programs at Warner Elementary that empower parents through education. These programs involve parent workshops, homework, and assessment.
Parent Workshops

Often parents are reluctant to take part in their children's education because they do not know what to do or fear their actions may interfere with or be detrimental to their children's progress. Education workshops not only provide parents with the basic skills that they need to help their children but the confidence to use them.

Richard Williams, principal at Warner Elementary, offers the following advice to schools that are planning parent workshops:

- Target your purpose.
- Target your audience.
- Then, organize your resources to meet both needs.

For example, Warner Elementary School organized a series of reading and writing workshops for parents. The purpose of these workshops was two-fold: 1) to teach parents specific skills that they, in turn, could use to help their child learn to read and write effectively; and 2) to train parents to act as volunteers in the classroom. The target audience was parents of entry level students and/or parents who were currently volunteering in the classroom or had expressed an interest in volunteering.

With a specific goal and audience in mind, the Warner faculty began to organize. The first major hurdle in any parent involvement is getting the information out and the parents in. The first was accomplished through a blizzard of announcements. General announcements were sent home with all students and notices of the workshops appeared in the monthly school newsletter. However, this was only a start. Through teacher recommendations, individual families from the target audience were sent special invitations asking them to participate.

The information was out, but would the parents attend? Once again, the Warner staff looked to their target population for the solution. Understanding the important connection between convenience and attendance, they decided to capitalize on the fact the many of the parents in the target population came to the school each day to pick their child.
up from school. Taking advantage of this fact, they scheduled workshops during the final 45 minutes of the children's school day. (Note: Workshops were held at midday for parents of the morning kindergarten students and during the afternoon for parents of afternoon kindergarten students or full day students.) The timing of these workshops solved two important problems. The parents did not have to worry about child care for their children, and they did not have to make an additional trip to school.

Did the parents attend? Yes, they did. Careful planning, based on the needs of both the parents and school, helped the school reach its initial goal - to provide parents with the necessary skills to help their children learn to read and write effectively.

Warner Elementary plans to expand its parent education program next year. Working with the staff of the Family Resource Center, they are organizing a series of programs related to behavioral problems and social development. Additional workshops related to basic skills (reading, writing, and math) are also being designed. In an effort to expand participation, many of these workshops will be offered at local churches throughout the county.

**Homework and Parents**

Used judiciously, homework assignments can be an excellent way of introducing parents to classroom activities. The key to success is specificity; include clear directions along with specific suggestions explaining how parents can help their child. For maximum success, design homework assignments that are open ended and illustrate basic learning principles.

Kelly Sherkat and several of her colleagues at Warner Elementary use a “homework notebook” as a method of involving parents in their student's education. The system is simple. At the beginning of the year, each student receives a spiral notebook. Each day, Ms. Sherkat writes the assignment for the day on the board. As the children write the assignment in their notebooks, the children and Ms. Sherkat discuss the activity. That evening, the students complete the assignment at home; parents are encouraged to work with the child. When
Our major goal is to get parents involved in the child's learning and to emphasize that learning is fun.

With the exception of the spiral notebook, what makes this type of homework different from traditional forms? The answer lies in the assignment itself. **All homework questions are open ended and whenever possible related to the children's lives.** For example, one day following a snowstorm, Ms. Sherkat posed the question, “What do you do on a snowy day?” This deceptively simple question was effective for several reasons. First, it was personal. The children were interested in and excited by the subject. Because they had missed several days of school because of the snowstorm, every child had a personal reservoir of experiences to draw from. Secondly, the question was phrased in such a way that everyone, regardless of age or ability level, could be successful. The variety of responses proved this fact. Some children wrote paragraphs of text on a single idea; others made long lists of activities with no further explanation; and a few chose to respond with a combination of text and pictures. While questions such as this are the mainstay of the program, mini projects and experiments are also used as homework assignments. Mr. Williams, principal of the school, comments, “We want to get rid of the ‘skill and drill’ that characterizes traditional homework assignments. One of our major goals is to get parents involved in the child’s learning and to emphasize that learning is fun.”

**Partners in assessment**

Sharing the responsibility of assessing children's progress is a new concept for both parents and teachers. Traditionally information about children's progress flowed in one direction, from the school to the home. As parents and students become active partners in the assessment process, communication flows in both directions - from the home to the school and from the school to the home.
Understanding that participation is based on knowledge, Warner Elementary organized a series of informational meetings on assessment. At the first meeting, the staff provided parents with an overview of assessment practices. Changes in assessment practices, such as performance events and portfolio assessment, were explained. Throughout the meeting, parents were encouraged to ask questions and to voice their concerns over the changes.

At the second meeting in this series, parents were given the opportunity to learn about performance assessment first hand. By participating in an actual performance task, they gained insight into the problem solving and integrated nature of this type of assessment. A series of "make it and take it" workshops on process writing, reading, math, and science also contributed to the parents' understanding of the skills and strategies that children need to develop.

In addition to these informational meetings and workshops, a special section for parent input was included in the newly designed primary progress report. In this section, parents are asked to identify and explain their goals for their child's learning. There is also a section where they can write general comments and/or questions. Such opportunities not only provide teachers with additional information concerning development, but affirms the parent's role in assessing children's progress.

**SUMMARY**

The benefits of family involvement are numerous and have the potential to exert a long-term positive influence. Although this chapter suggests a number of tips to assist teachers, administrators, and parents as they begin to plan, experience shows that there is no single "blueprint" for success. Effective family involvement programs are as varied and unique as the individual populations they represent. Despite this diversity, two strong beliefs undergird successful family involvement programs: 1) families have a place in the education of their children; and 2) it is the responsibility of schools to encourage families to become full partners in this education.
REFERENCES


9. **MAKING THE CHANGE**

The statewide implementation of the primary program is probably the most ambitious change effort ever undertaken in American education. Thus, it is not surprising that Kentucky's primary teachers are experiencing a great deal of stress. Conscientious teachers who have been successful in traditional classrooms are being asked to abandon some of their basic practices, to move away from heavy reliance on a single textbook, to discontinue ability grouping, to work with multi-age, multi-ability groups, to use flexible grouping, and to learn to use whole language, investigative science, manipulative mathematics, and process writing. Any one of these changes would take a great deal of time and effort to implement; but primary teachers are being asked to implement all of these changes simultaneously and within a relatively short period of time.

**AN OPPORTUNITY FOR EMPOWERMENT**

Fortunately, many teachers throughout the commonwealth view the move to the primary program as an opportunity for empowerment. Susan Woods at Colony Elementary exclaims, "The primary program lets me be me!" No longer is the Kentucky Department of Education telling teachers that they must spend a certain number of minutes each day teaching each subject or that they must teach certain topics in a given grade level. On the other hand, they are being told that as long as their students are making progress toward attainment of the 75 Learner Outcomes, they have the freedom to design the curriculum and their classroom learning environment as they see fit.

With freedom comes responsibility. Accepting responsibility for designing a primary program can be daunting, but the enthusiasm of the teachers who are the pioneers and the excitement of their students is contagious. Seeing a seven-year-old stand in front of a group of mixed age classmates, tell them about the fourth grade chapter book he just finished, and invite them to join his discussion group is convincing proof that the ceiling has been raised. The sky's the limit!
GUIDELINES FOR CHANGE

Principals and teachers, especially teachers, are the heart of the effort to implement the primary program. Ultimately, it is the individual teacher in each of the 8000 primary classrooms in Kentucky who will implement the change.

Tom Guskey discusses three guidelines that are essential to bringing about change to an outcomes-based instructional program.

GUIDELINES FOR CHANGE

Guideline #1: Think big; start small.
Guideline #2: Work in teams.
Guideline #3: Focus on success.

BECOMING A RISK TAKER

Sharon Griffey of Stonestreet Elementary captures both the challenge and the pain of change when she says, “I learned about the primary program through trial and fire!” “Trial” is a recurring theme on the part of the primary pioneers; they all say that as they tried new approaches they made a lot of mistakes along the way, but they backed up and tried again. They learned through their mistakes just as students learn through their mistakes.

Before teachers will be willing to learn through “trial and fire,” administrators must establish a risk taking environment in the school. John Mann, principal of Caywood Elementary, encourages his teachers to take risks and insists that there be common trust and that teachers should not be criticized when they are trying new approaches. He states, “Principals should be understanding and give teachers freedom to explore and try new ways to teach.”
The importance of the principal's role in implementing the primary program cannot be overstated. In the schools we visited where the greatest progress was being made, the principal was supportive of teachers' efforts to change, participated in staff development sessions to learn about the primary school, and was enthusiastic about the positive benefits of the primary program for student learning and teacher empowerment.

Teachers also mentioned how important it was to surround themselves with other positive and enthusiastic teachers who were also in the process of change. Trying out new ideas with another teacher made the risk less frightening. When things didn't go right or when they had problems, they could talk about these problems together and come up with alternative solutions.

**STAGES IN BECOMING A PRIMARY TEACHER**

Regie Routman, author of two books for teachers on whole language, *Transitions and Invitations*, recounts her own transition from a traditional teacher to a whole language teacher. She identified the following stages in her metamorphosis:

1. I can't do this. It's too hard, and I don't know enough.
2. Maybe if I find out about it, it's possible.
3. I'll do exactly what the experts say.
4. I'll adapt the experts' work to my own contexts.
5. I trust myself as an observer-teacher-learner-evaluator.

She remembers, "Like many of us, I started off feeling overwhelmed and inadequate, and becoming a whole language teacher seemed out of reach. Part of that feeling stemmed from defensiveness and a reluctance to change. Gradually, because of curiosity and wanting to grow as a teacher, I moved to stage 2, where I took the time to explore - mostly through professional reading and attending conferences. Listening to educators at conferences and interacting with teachers in process made whole language seem like a possibility..."
"As I continued to attend conferences, read professionally, reflect on my teaching, share ideas of what was working and not working with colleagues, and observe children, I slowly began to feel that meaningful change was possible for me...Gradually, after many years of teaching, reflecting, observing, and collaborating, I began to feel confident about my own beliefs about literacy learning..."

"I have begun to adapt what I read to my own learning-teaching contexts...I recognize that I will always be a learner. I welcome the fact that I will be in the process of ‘becoming’ all the years that I remain a teacher.” (Invitations, p. 27-28)

Did you catch a glimpse of yourself in Routman’s account of her own growth? It’s comforting to know that a fine teacher/author like Regie Routman went through stages of self doubt and questioning before she learned to trust herself as a teacher-learner. We talked to a number of Kentucky primary teachers who were at various stages in their transition toward becoming a primary teacher. From those interviews, we gleaned the following advice for implementing the primary program.

**Observe Experienced Primary Teachers**

To paraphrase an old adage, “A visit is worth a thousand words.” Time and again teachers told us that observing in other primary classrooms gave them more help in learning to implement the primary program than any other type of experience. They noted that it was important to have a chance to talk to the teachers they visited so that they could discuss what they had observed and ask questions about anything they did not understand.

After visiting in another primary classroom, teachers at Salem Elementary reported, “We found some really neat ideas that we have already begun to implement during our whole language block.” At another school, one teacher who had originally doubted the wisdom of the primary program said she had changed her mind after visiting in a primary classroom, “Seeing is believing - I think I can do this!”
READ, READ, READ

Elizabeth Lewis, a teacher at Wheeler Elementary, says that the two main ways she and her fellow teachers learned about the primary program was through reading articles and books on the primary program and attending workshops at the Gheens Academy in Louisville. Most of the teachers we interviewed commented that reading as much literature as possible was an important way they learned what the primary program is all about.

The following books were the most frequently mentioned as being helpful to primary teachers:


MAKE HASTE SLOWLY

Regie Routman uses the terms "slowly" and "gradually" in her account of her evolution as a whole language teacher. Gradual change was a continuing theme among the teachers with whom we spoke. Amy Collier at Colony Elementary advised, "New primary teachers should tackle one area at a time such as concentrating on themes, whole language programs, or portfolios." Her colleague, Susan Woods said that she focused on math and the whole language approach this year; next year she plans to focus on the development of thematic units.

Remember Guideline #1: Think big; start small.
BUILD ON YOUR OWN STRENGTHS

All teachers have strengths upon which they can build. Perhaps you know a lot about children's literature. You may want to begin the primary program by relying more heavily on children's literature in your reading program. You could try some of the suggestions in Chapter 6 for conducting literature conversations to see which ones work the best for you and your students. You would probably want to rearrange your room to set up a literacy center filled with children's tradebooks and the "write stuff" for encouraging young writers as suggested in Chapter 6.

Or maybe science is your thing. You are one of those people who is always asking "why?" and trying to figure out how things work. You've been using SCIS or Kentucky ACES so you already have many of the investigative science materials needed to set up your science center. You may want to begin with one of the integrated units based on the science core concepts in Learning Goal 2 (See Chapter 5.)

Elizabeth Rightmyer, Director of The Chance School, points out to visiting teachers that they have probably already been doing many of the things recommended in the primary program. She suggests, "Start by making a list of all of the things that you are already doing that fit into the primary school model. Then make a list of the other attributes you want to change." Decide which aspects of your classroom environment and instructional program you want to change first and decide on a reasonable time frame for making that change. Choose one aspect at a time to work on. When you are comfortable with that change, decide on the one to tackle next.

COLLABORATE WITH A COLLEAGUE

"Two heads are better than one." Collaboration starts with the premise that we all can learn from one another. Working together, two teachers or a team of teachers can generate more ideas than one teacher working alone. John Finch at Caywood School pointed out, "There
is a great deal of expertise in one school building.” The Caywood teachers have regular meetings to share ideas and teach one another. Many times training at Caywood takes place with Caywood’s own teachers acting as the trainers and facilitators.

Many districts are facilitating monthly meetings with primary teachers to allow teachers across the district to share information and to discuss the positives and negatives of their primary programs. The teachers are learning from one another.

Many teachers throughout the state have worked in teams to develop theme-centered units. This gives them access to more materials and more ideas and reduces the workload on the individual teacher. In Livingston County, all of the primary teachers were invited to a meeting at the beginning of the year to discuss and share ideas on themes for the year. At the end of the meeting, the teachers voted and decided on four major themes for the 1992-1993 school year. Having a set of common themes enabled teachers across the county to share ideas and lessons on the chosen themes.

Beginning in the summer of 1993 and continuing through the summer of 1994, each of six state universities will prepare 24 classroom teachers to serve as K-3 science specialists. Developing and field testing a dozen model units at each of the six sites will be part of the preparation. The grand plan is to share those units broadly across the state and enlarge the pool of classroom teachers who can provide a variety of staff development services in elementary science. Stay tuned.

At Hager Elementary, the teachers have developed a Resource Room. Linda Mahanna has found the room to be a “big help in housing different materials that are checked out and shared among all teachers on a regular basis.”

For true sharing and collaboration to take place in a school, everyone needs to feel empowered and comfortable in presenting their ideas and concerns. Teachers must be working cooperatively in a collegial fashion, not competitively. In effective schools, teachers
Under Kentucky's 
rewards and 
sanctions program, 
it will be to the 
advantage of 
teachers to work 
collaboratively and 
to share their 
knowledge and 
expertise with one 
another.

support each others' efforts to increase learning for all students. They do not compete with one another for recognition or rewards. Under Kentucky's rewards and sanctions program, the progress of all students in the school will be measured to determine whether the entire school is making satisfactory progress toward its goals, so it will be to the advantage of teachers to work collaboratively and to share their knowledge and expertise with one another.

Remember Guideline #2: Work in Teams.

MAKE ADJUSTMENTS AS NEEDED

As teachers, we have all had lessons that failed or ideas that didn’t work. What makes good teachers effective is that they recognize their mistakes and failures and they do something about them. They make changes in the learning environment, the classroom procedures, or the lesson plan to avoid making the same mistake again.

For example, when you first began to use cooperative learning, you may have had an unsuccessful experience because the students did not know how to interact with one another socially. As a reflective teacher, you analyzed the problem and went back and taught the necessary social skills that are prerequisite to successful cooperative learning. Then you tried the lesson again.

Some of the ideas you see in your visits or read about in articles and books will work for you and your students; others will not. But you will never know unless you try. When you try a new approach or technique, you will probably find that you need to make adjustments for your own teaching style and the learning needs of your students. As long as your students are making progress toward attainment of the 75 Learner Outcomes, you may adjust the program as you see fit.

Remember Sharon Griffey's admission that she learned about the primary program through “trial and fire.”
MAKE THE PROGRAM YOUR OWN

There is no one right way to implement the primary program. We have the seven critical attributes to guide us in our implementation efforts, but the way in which each teacher or team of teachers will implement the attributes will differ from classroom to classroom.

FOCUS ON SUCCESS

Most teachers entered the teaching profession because of their desire to help students learn and they measure their success in terms of student learning. The major reason why teachers are willing to do extra work and experience the personal discomfort of attempting change is the belief that they will soon become better teachers and their students will learn more as a result.

The primary teachers we visited feel that their students are learning more. For example, Jennifer Mockbee at Bellevue Elementary has been amazed at the success of her students in reading. She exclaimed, "The students have gone far beyond my expectations." As students are allowed to experience continuous progress, to self select their own reading materials and learning activities, and to engage actively in projects with other classmates, their learning is not restricted to grade level expectations. The primary program has lifted the ceiling on students' learning.

Remember Guideline #3: Focus on success.

SUMMARY

There has never been a more exciting or more challenging time in Kentucky education. We have the single best chance we will ever have to make a lasting change in the educational lives of our students, in our own teaching lives, and in the way primary education is conducted across this country - not just in Kentucky. Ultimately, the success of the primary program in Kentucky rests on you!
REFERENCES


KENTUCKY’S LEARNING GOALS AND LEARNER OUTCOMES

The centerpiece of Kentucky’s education reform effort is its vision of what students should know and be able to do as a result of their school experience. Every aspect of the reform movement is designed to promote student attainment of these goals and to measure our progress in helping them to do so.

Assumption underlying KERA

All students are capable of learning.

The expectations for students are set forth as the six learning goals of KERA. These goals led to the development of 75 learner outcomes that characterize student achievement of the goals. All Kentucky students are expected to achieve the following:

1. Students are able to apply basic communication and mathematics skills in situations similar to what they will experience in life.

Much more than just the “basic skills” of yesteryear, Goal 1 emphasizes the critical nature of communication and math skills to success in any educational undertaking and throughout life. The sixteen learner outcomes listed under Goal 1 classify these communication skills into three broad categories - finding and gathering information and ideas by a variety of means, such as reading, listening, and observing; organizing and manipulating information and ideas by classifying, visualizing, and other techniques; and expressing information, ideas, and emotions in a variety of formats, including writing, speaking, and art. Use of these communication and mathematics skills is implicit in the other learning goals.

1.1 Students use research tools to locate sources of information and ideas relevant to a specific need or problem.

1.2 Students construct meaning from a variety of print materials for a variety of purposes through reading.

1.3 Students construct meaning from messages communicated in a variety of ways for a variety of purposes through observing.

1.4 Students construct meaning from messages communicated in a variety of ways for a variety of purposes through listening.

1.5 Students communicate ideas by quantifying with whole, rational, real and/or complex numbers.

1.6 Students manipulate information and communicate ideas with a variety of computational algorithms.

1.7 Students organize information and communicate ideas by visualizing space configurations and movements.

1.8 Students gather information and communicate ideas by measuring.

1.9 Students organize information and communicate ideas by algebraic and geometric reasoning such as relations, patterns, variables, unknown quantities, deductive and inductive processes.

1.10 Students organize information through development and use of classification rules and classification systems.

1.11 Students communicate ideas and information to a variety of audiences for a variety of purposes in a variety of modes through writing.

1.12 Students communicate ideas and information to a variety of audiences for a variety of purposes in a variety of modes through speaking.

1.13 Students construct meaning and/or communicate ideas and emotions through the visual arts.

1.14 Students construct meaning and/or communicate ideas and emotions through music.

1.15 Students construct meaning from and/or communicate ideas and emotions through movement.

1.16 Students use computers and other electronic technology to gather, organize, manipulate, and express information and ideas.

2. Students shall develop their abilities to apply core concepts and principles from science, mathematics, social studies, arts and humanities, practical living studies, and vocational studies to what they will encounter in life.

"Core concepts and principles" are the broad ideas and themes that enable us to organize knowledge and experiences. Application of such concepts as "patterns of change" in sci-
ence, "democratic principles" in social studies, and "cultural heritage" in the humanities are critical to demonstrate that students truly understand a subject, rather than merely memorizing discrete facts about it. Examining the 38 learner outcomes under Goal 2 reveals the many parallel ideas in the disciplines, as well as features that make each discipline unique. It is important to remember that Goal 2 specifies the meaningful *application* of the core concepts, not just knowing about them.

**Science**

2.1 Students use appropriate and relevant **scientific skills** to solve specific problems in real-life situations.

2.2 Students identify, compare, and contrast **patterns** and use patterns to understand and interpret past and present events and predict future events.

2.3 Students identify and describe **systems**, subsystems, and components and their **interactions** by completing tasks and/or creating products.

2.4 Students use **models and scales** to explain or predict the organization, function, and behavior of objects, materials, and living things in their environment.

2.5 Students understand the tendency of nature to remain **constant** or move toward a steady state in closed systems.

2.6 Students complete tasks and/or develop products which identify, describe, and direct **evolutionary change** which has occurred or is occurring around them.

**Mathematics**

2.7 Students demonstrate understanding of **number concepts**.

2.8 Students demonstrate understanding of concepts related to **mathematical procedures**.

2.9 Students demonstrate understanding of concepts related to **space and dimensionality**.

2.10 Students demonstrate understanding of **measurement** concepts.

2.11 Students demonstrate understanding of **change** concepts on patterns and functions.

2.12 Students demonstrate understanding of concepts related to **mathematical structure**.
2.13 Students demonstrate understanding of **data** concepts related to both CERTAIN and UNCERTAIN events.

**Social Studies**

2.14 Students recognize issues of justice, equality, responsibility, choice, and freedom and apply these **democratic principles** to real-life situations.

2.15 Students recognize varying **forms of government** and address issues of importance to citizens in a democracy, including authority, power, civic action, and rights and responsibilities.

2.16 Students recognize varying **social groupings and institutions** and address issues of importance to members of them, including beliefs, customs, norms, roles, equity, order, and change.

2.17 Students interact effectively and work cooperatively with the **diverse ethnic and cultural groups** of our nation and world.

2.18 Students make **economic decisions** regarding production and consumption of goods and services related to real-life situations.

2.19 Students recognize the **geographic interaction between people** and their surroundings in order to make decisions and take actions that reflect responsibility for the environment.

2.20 Students recognize continuity and change in **historical events, conditions, trends, and issues** in order to make decisions for a better future.

2.21 Students observe, analyze, and interpret human behaviors to acquire a better understanding of self, others, and **human relationships**.

**Arts and Humanities**

2.22 Students **create products and make presentations** that convey concepts and feelings.

2.23 Students **analyze** their own and others’ artistic **products and performances**.

2.24 Students **appreciate creativity and values of the arts** and the humanities.

2.25 Through their productions and performances or interpretation, students show an understanding of the **influence of time, place, personality, and society on the arts and humanities**.
2.26 Students recognize differences and commonalities in the human experience through their productions, performances, or interpretations.

2.27 Students complete tasks, make presentations, and create models that demonstrate awareness of the diversity of forms, structures, and concepts across languages and how they may interrelate.

**Practical Living**

2.28 Students understand and communicate in a second language.

2.29 Students demonstrate positive individual and family life skills.

2.30 Students demonstrate effective decision-making and evaluative consumer skills.

2.31 Students demonstrate skills and self-responsibility in understanding, achieving, and maintaining physical wellness.

2.32 Students demonstrate positive strategies for achieving and maintaining mental and emotional wellness.

2.33 Students demonstrate the ability to assess and access health systems, services and resources available in their community which maintain and promote healthy living for its citizens.

2.34 Students perform psychomotor skills effectively and efficiently in a variety of settings.

2.35 Students demonstrate knowledge, skills, and values that have lifetime implications for involvement in physical activity.

**Vocational Studies**

2.36 Students demonstrate strategies for selecting career path options.

2.37 Students produce and/or make presentations that communicate school-to-work/post-secondary transition skills.

2.38 Students demonstrate the ability to complete a post-secondary opportunities search.
3. Students shall develop their abilities to become self-sufficient individuals.

While educators have talked for years about developing self-sufficient individuals with long-life learning skills, Goal 3 unequivocally states that this is expected of every Kentucky student. The seven learner outcomes under Goal 3 specify the attributes that characterize self-sufficiency. These outcomes are the responsibility of every teacher, administrator, and other school employee to foster and develop. Achieving them for every student will be one of Kentucky's biggest challenges.

3.1 Students demonstrate positive growth in self-concept through appropriate tasks or projects.

3.2 Students demonstrate the ability to maintain a healthy lifestyle.

3.3 Students demonstrate the ability to be adaptable and flexible through appropriate tasks or projects.

3.4 Students demonstrate the ability to be resourceful and creative.

3.5 Students demonstrate self-control and self discipline.

3.6 Students demonstrate the ability to make decisions based on ethical values.

3.7 Students demonstrate the ability to learn on one's own.

4. Students shall develop their ability to become responsible members of a family, work group, or community.

"Cooperative learning" is a major buzz-word in educational circles these days. While cooperative learning strategies are certainly embedded within Goal 4, the six learner outcomes emphasize a broad range of characteristics that enable people to live and work together effectively. Goal 4, with its focus on interpersonal interactions, combines with the individual outcomes of Goal 3 to create a picture of well-rounded citizens with the tools to function in a changing society.

4.1 Students effectively use interpersonal skills.

4.2 Students use productive team membership skills.
4.3 Students individually demonstrate **consistent, responsive, and caring behavior**.

4.4 Students demonstrate the ability to accept the **rights and responsibilities for self and others**.

4.5 Students demonstrate an understanding of, appreciation for, and sensitivity to a **multicultural and world view**.

4.6 Students demonstrate an **open mind to alternative perspectives**.

5. **Students shall develop their abilities to solve problems both in school and in a variety of situations similar to what they will encounter in life**.

Problem-solving is often described as "what you do when you don't know what to do." The five learner outcomes under Goal 5 address the various purposes and products that problem-solving situations might involve. All the outcomes require students to apply thinking and reasoning skills. While thinking and problem-solving are typically referred to as "higher order" skills, it should not be inferred that working on these learner outcomes must wait until the outcomes under Goals 1-4 are achieved. Indeed, the process of trying to solve an engaging problem can provide a motivating context for students to develop these other skills.

5.1 Students use **critical thinking** skills in a variety of situations that will be encountered in life.

5.2 Students use **creative thinking** skills to develop or invent novel, constructive ideas or products.

5.3 Students create and modify their understanding of a **concept** through organizing information.

5.4 Students use a **decision-making** process to make informed decisions among options.

5.5 Students use **problem-solving** processes to develop solutions to relatively complex problems.

6. **Students shall develop their abilities to connect and integrate knowledge from all disciplines into their own knowledge bases**.

Goal 6 requires that students think and work across disciplines and that teachers structure learning opportunities to help students explore interdisciplinary linkages. Very few situa-
tions in the “real world” can be conveniently assigned to a single academic discipline. For example, the issue of global energy resources has scientific, social, economic, political, and cultural aspects. The three learner outcomes under Goal 6 address different strategies for connecting, integrating, and re-examining existing knowledge, as well as for generating new knowledge.

6.1 Students address situations (e.g., topics, problems, decisions, products) from multiple perspectives and produce presentations or products that demonstrate a broad understanding. Examples of perspectives include: economic, social, cultural, political, historic, physical, technical, aesthetic, environmental, and personal.

6.2 Students use what they already know to acquire new knowledge, develop new skills, or interpret new experiences.

6.3 Students expand their understanding of existing knowledge (e.g., topic, problem, situation, product) by making connections with new and unfamiliar knowledge, skills, and experiences.

The descriptions of the learning goals were written by Mike Howard, Director of Education, Kentucky Science and Technology Council.
LANGUAGE AND LITERACY

**DISPLAYS INTEREST IN PRINT**
- shares books with others
- chooses to spend time with books
- asks to be read to
- listens attentively to books in a group
- contributes to group discussion
- checks out books frequently

**DURING SUPER**
- Involves self intensely with print
- Maintains interest in print with additional support

**SILENT READING**
- Has difficulty being involved with print
- Totally involved with reading experiences
- Willing to participate with additional support

**GROUP READING**
- Totally involved with reading
- Willing to participate with group activity

**DURING READING DISCUSSIONS**
- Carries on a meaningful conversation
- Willing to answer questions about reading material
- Expresses thoughts or feelings about reading material

**DISPLAYS INTEREST IN WRITING**
- chooses to write or draw
- wants more writing time
- wants to share their writing
- shows interest in others' writing
- uses available print

**DURING WRITING WORKSHOP**
- Shows independence using the writing process
- Shows some independence, needing individual guidance to progress
- Needs individual guidance to participate

**STORY DEVELOPMENT**
- Develops and organizes ideas with a purpose
- Expresses logical and sequential thoughts and ideas; needs to develop a clearer purpose
- Expresses ideas; may or may not be logically connected

**KNOWLEDGE OF MECHANICS**
- Able to use punctuation, capitals, grammar and complete sentences
- Shows some use of punctuation, capitals, grammar and complete sentences, but not consistently
- Needs awareness of punctuation, capitals, grammar and complete sentences

**READING STRATEGIES**
- Uses a variety of reading strategies
- Beginning to use one or more reading strategies
- Unaware of reading strategies

**STEPS IN READING**
- listening to stories, unaware of print and its function
- picture reading, describing pictures
- Pretends reading, turning pages, tracking print, rehearsing silently
- memory reading
- recognizes some words but not all
- recognizes patterns in reading
- reading with understanding, summarizes
Parents! Please write a home goal for your child. It may be something that you will continue to work on during this next reporting period.

Sign and return ___________________________ Date ________________
Goal 1: Use basic communication and math skills for purposes and situations they will encounter throughout their lives.

Does the student:
* express him or herself clearly and effectively in oral and written form?
* understand oral and written information through listening and reading?
* demonstrate confidence in his or her ability to communicate?
* apply mathematical procedures to problem-solving?

Examples of Target Performances That Support Student Success in Fourth Grade

The student is developing and demonstrating the ability to:
- effectively verbalize opinions, ideas, and feelings.
- write for a variety of purposes.
- edit drafts to a point where others can understand them.
- communicate what has been read through discussions, projects, writing, and speaking.
- read a variety of materials for a variety of purposes.
- use a variety of comprehension and word recognition strategies while reading.
- choose appropriate resources (e.g. pleasure books, informational materials, reference materials) to address specific needs.
- use appropriate mathematical terminology.
- use computation strategies to solve real-life situations.
- use addition, subtraction, and multiplication to solve problems.
- provide reasonable explanations for solutions and strategies.

Evidence from student work samples, anecdotal records, observational checklists, student self-reflections, and other sources.

Chris has limited use of basic communication and math skills. He can and will express himself clearly and effectively in oral and written language approximately half of the time. As a learner, he requires a great deal of assistance to understand the things he hears or reads. Anecdotal records and work samples indicate that Chris needs to develop more confidence in his ability to communicate.

Chris’ main source of information is through repeated directions and instructions from the teacher.

In terms of the target performances of Goal 1, Chris is still at the beginning stages of learning because he still requires a great deal of teacher assistance to be successful.
Goal 2: Apply core concepts and principles from mathematics, the sciences, arts and humanities, social studies, practical living studies, and vocational studies to situations they will encounter in life.

Does the student:
- apply mathematical concepts including computation, measurement, estimation, and geometry?
- collect, display, and interpret data?
- demonstrate use of monetary values in an economic system?
- solve problems using appropriate investigation skills?
- creatively express ideas and feelings?
- apply democratic principles in relationships with peers?
- identify contributions of diverse individuals, groups, and cultures?

Examples of Target Performances That Support Student Success in Fourth Grade

The student is developing and demonstrating the ability to:
- use geometric shapes to sort and classify; create patterns; construct models; and to connect these to real-life situations.
- make and use measurements in real-life situations.
- develop strategies for estimation.
- collect, organize, and analyze information or objects.
- conduct a simple experiment.
- draw conclusions, make predictions, and verbally describe information displayed on graphs, charts, and tables.
- experiment with various solutions to problems and defend the solution he or she has chosen.
- communicate observations and data using graphic illustrations and models.
- communicate through visual arts, music, or movement.
- participate in establishing and maintaining classroom rules which demonstrate democratic principles.
- accept others and their differences.

Evidence from student work samples, anecdotal records, observational checklists, student self-reflections, and other sources.

Work samples and my observations and anecdotal records of Chris indicate that he still requires teacher assistance in order to successfully demonstrate the outcomes listed under Goal 2. He does enjoy success in small groups and one on one interactions with the teacher. He also likes working with younger children. Chris enjoys music and movement.

He is still at the beginning stages of learning how to solve problems using investigation skills, as well as some of the other target performances such as sorting, patterns, measuring, and conducting simple experiments. His mathematical concepts are limited to basic computation, measurement, etc.; to make application of these concepts requires assistance from the teacher.
Goal 3: Becomes a self-sufficient individual.

Does the student:
- demonstrate responsibility for personal belongings?
- show respect for the property and rights of others?
- display self-control and self-discipline?
- access appropriate resources for learning in school, at home, and in the community?

Examples of Target Performances That Support Student Success in Fourth Grade

Evidence from student work samples, anecdotal records, observational checklists, student self-reflections, and other sources.

Chris requires much assistance to initiate and carry through on projects, attempt new tasks, as well as being able to access appropriate resources. He is beginning to demonstrate respect for property and rights of others, but still requires help with self-control and self-discipline. The exception is when Chris is with younger primary students. He does appear to understand the consequences of his behaviors.

Goal 4: Become responsible member of a family, work group, or community.

Does the student:
- participate in group activities cooperatively?

Examples of Target Performances That Support Student Success in Fourth Grade

Evidence from student work samples, anecdotal records, observational checklists, student self-reflections, and other sources.

My anecdotal records indicate that Chris is just beginning to become a responsible member of a work group. He requires much help to solve conflicts and to actively participate in cooperative group tasks. Chris does not hinder the group effort but just goes along with the group. Chris is showing real growth in terms of his ability to recognize, respect, and accept individual differences.
Goal 5: Think and solve problems in school situations and in a variety of situations they will encounter in life.

Does the student:
- choose appropriate processes and strategies to solve given problems?

Examples of Target Performances That Support Student Success in Fourth Grade

The student is developing and demonstrating the ability to:
- form and defend opinions based on multiple sources of information.
- define a problem, gather information, and generate alternative solutions.
- examine cause and effect, analogies, and other kinds of relationships.
- effectively use questions to gather information.
- analyze relationships to form analogies.
- generate a variety of ideas.
- organize, analyze, and apply information in making decisions and solving problems.

Evidence from student work samples, anecdotal records, observational checklists, student self-reflections, and other sources.

Chris is a beginner in regard to the examples of the target performances of Goal 5. He still requires a great deal of assistance in order to choose appropriate strategies to solve problems. Chris is developing higher-order thinking skills but requires much help to demonstrate these skills most of the time.

Goal 6: Connect and integrate the knowledge they have learned in school into their own lives.

Does the student:
- apply previously learned knowledge and concepts to new situations?

Examples of Target Performances That Support Student Success in Fourth Grade

The student is developing and demonstrating the ability to:
- use prior experience to understand new information.
- compare and analyze relationships between objects, ideas, and/or actions.
- analyze information or situations and develop generalizations.

Evidence from student work samples, anecdotal records, observational checklists, student self-reflections, and other sources.

Some of the anecdotal records I have collected and work samples Chris has completed indicate that he is beginning to develop the ability to apply previously learned knowledge to new situations. He still requires a great deal of assistance to connect what he is learning in school to his own life.
Summary

Directions: Please answer the following questions based on the evidence gathered for Learning Goals 1 through 6:

- Will this student benefit from more time in the primary program or should he or she make the transition into the fourth grade?
- How can the family and teachers work together to support this child?
- What kinds of instruction will help this child for the remainder of the year?
- What kinds of instruction will help this child next year?

Comments:

Chris will benefit from more time in the primary program so that he will experience more success when he makes the transition to fourth grade. As a learner, Chris is a beginning student in terms of most of the outcomes listed under the six goals, because he still needs lots of assistance from the teacher. Chris has shown real growth in terms of his social skills. I would classify him as an emerging learner in terms of his social skills because he needs less and less assistance from the teacher. My conversations with other primary teachers who have worked with Chris indicate that we need to focus on Goals 1 and 2 for the remainder of this school year and next year to continue to focus attention on goals 1, 2, 3, and 4. Planning for Chris’ instruction may involve the services of ESS, Family Resource Center, and other local district programs.
TAKING THE INITIATIVE
BARRIERS TO FAMILY INVOLVEMENT: QUESTIONS TO ASK

Use the following questions to assess your school's "openness" quotient.

Physical Barriers

1. Logistical problems: scheduling, child care, transportation
   Questions to ask:
   - Are there opportunities for families to be involved in the evening or after school hours?
   - Are staff available before and after school?
   - Is child care provided during conferences and meetings?
   - Is child care available for volunteers?
   - Are alternate forms of transportation available for families?

2. Physical school environment: open or closed?
   Questions to ask:
   - Is the office clearly marked and adequately staffed?
   - Is the entrance physically welcoming?

3. Language barriers
   Questions to ask:
   - Are print materials in more than one language?
   - Is someone available who speaks the language spoken in the home?

4. Lack of time and funding
   Questions to ask:
   - Are teachers given release time to visit parents and develop programs?
   - Are parents given release time to train parent volunteers?
   - Are teachers paid for after school programs?
   - Are parent involvement programs funded?

Psychological Barriers

For Parents:

1. Negative attitudes or bad experiences with schools
   Questions to ask:
   - Are initial contacts with the family related to pleasant or unpleasant subjects?
   - Has the parent’s experiences with school been negative or positive?
2. Feelings of inadequacy, failure, and poor self-worth
Questions to ask:
Do parents have high or low expectations for their child?
Are parents intimidated by the notion of school and teacher?
Are parents discouraged by their own failures?
Are parents afraid they will show a lack of knowledge and embarrass themselves.

3. Suspicion or anger that school are not treating them equally
Questions to ask:
Do parents see themselves as "pawns" of the system?
Do parents feel that schooling will not help their child?
Do parents feel they are treated different than more affluent parents?
Do parents perceive the teacher as an authority figure and as a result mistrust him/her?

4. Leave it to the schools
Questions to ask:
Do parents feel "education" is the teacher's job not theirs?
Do parents feel they should not interfere?
Do parents feel unable to help their child?

For Schools and Teachers:

1. Commitment and attitudes toward family involvement
Questions to ask:
Is the entire school committed to family involvement?
Is leadership shared by the administration, faculty, and staff?
Is family involvement considered a necessity not a luxury?
Do faculty accept diversity among families?
Does the school adopt a "non-deficit" attitude toward families?
Does the school reject the idea that some groups of parents can not be reached?

2. Doubts about their abilities to work with parents
Questions to ask:
Do teacher's feel comfortable working with parents?
Is staff development provided to assist teachers develop new skills? Is time given to develop programs with families?

3. Confusion about the role of the teacher
   Questions to ask:
   Do parents and teachers have a similar view of family involvement?
   Do teachers worry parents will disrupt the class and undermine their authority?

4. Schools assume a passive role or fail to help parents feel welcome
   Questions to ask:
   Are parents "invited" to participate?
   Are invitations issued frequently and on a regular basis?
   Are interested parents seen as partners or threats?
   Is there a welcoming attitude in the building?
   Are unscheduled visits by parents welcomed and/or encouraged?
The spelling words this week will come from our study of Washington, D.C. Please choose seven words to study for the spelling test next Monday.

agency, focal
archive, grid
bureau, library
capital, capitol
cemetery, monument
peak, core
senate, site
tourism, federal
institute, Potomac River
Columbia, congress

Field trips: Friday, January 22nd, our class along with several from Squires will attend the performance of Heidi. The cost for bus and performance is $4.00 per student.

We will leave Squires at 9:15 for the scheduled 10:00 performance. There is no need to send a lunch, we will eat in the classroom when we return to school.

Monday, January 25th, all students will go to Safety City. Each child will need a lunch to take along. I've not found out what time we'll leave Squires, but I do know that we will eat lunch in the cafeteria there. There is no charge for this trip.

CONGRATULATIONS !!!!

Emily Witham was the runner up in the school-wide spelling bee for primary students, last Thursday afternoon. We're very proud of you Emily.
As our winter break approaches, we look back to our accomplishments and look forward to an exciting future in 1993. As teachers, we continue to be proud of our student's successes. We strongly believe that student success is the goal of all our school activities. Through our multi-age primary program, student success is promoted in a variety of ways including:

- The lines between grade levels and ability groups are "blurred" as each child is able to progress at his/her own rate without the fear of failure.
- Using real literature has motivated our children to read in dramatic and positive ways. The wide variety of reading materials has sparked the interest of every student.
- The active involvement of students in learning through "hands-on" math, science and social studies has contributed to a significant increase in skill acquisition and student motivation.
- Learning connections have helped us concentrate on providing quality activities to develop your child's multiple intelligences.

We would be negligent if we did not express our appreciation to you, as parents, for the on-going support and involvement you provide in so many ways. Additionally, we think special note should be made of the vital role Mrs. Bush plays in establishing a climate where innovation and creativity is encouraged. The Wheeler "success" story is one of true teamwork, and it is clearly our children who benefit from such a commitment to teamwork.

Mrs. Foreman
Mrs. Lewis
Mrs. Strope
Mrs. Wallace
Mrs. Whitaker
OVER THE HOLIDAYS, PLEASE CHECK YOUR CHILD'S SUPPLIES. EVERY CHILD MUST (AT LEAST) HAVE PAPER AND PENCILS EVERYDAY.

THANK YOU!!

REMEMBER WHEELER HAS A NEW VOICE MAIL PHONE NUMBER. IF YOU WANT TO REPORT AN ABSENCE, FIND OUT WHAT'S GOING ON WITH OUR TEAM OR LEAVE A MESSAGE FOR ONE OF YOUR CHILD'S TEACHERS, CALL 495-7550

HOMWORK REMINDER AND UPDATE:

MON.

WED.  READING/Writing

THURS.

TUES.  MATH

Please help us by checking daily with your child to see that it is completed. We believe a limited amount of homework.

1.) Helps develop self-discipline.
2.) Reinforces and extends the work of the classroom.
3.) Gives needed practice in areas that may be weak.
4.) Provides better understanding of what is taking place at school.
HAPPENINGS!

Mrs. Foreman's students have been actively learning about cultural celebrations from around the world during December. They studied France, Italy, Germany, Israel, Spain and Africa. It was very special for the students to take time to examine the holidays of other people. These same students also learned about other cultures in their own state. Through the aid of a network of teachers, the students have had the valuable opportunity to write penpal letters to students at a school in Ary, KY. So far the students have exchanged letters, drawings and pictures. They hope to also exchange videotaped messages.

Mrs. Lewis' morning block has had loads of fun the last few months. Most every child made a presentation during our "Expert's Hour." It was neat learning what our friends were and expert at doing.

We had a mysterious letter from our outer space friend, Tuffy. He wrote us two times, but we haven't heard back from him. Perhaps he went back to his planet. We also wrote our penpals in Ary, KY. We're waiting to hear back from them, too.

Did you hear about our big performance on Wheeler's World? Mrs. Lewis' class sang one of our favorite songs for the school, "I Like to Read." They did a fantastic job!

Mrs. Whitaker's morning block has taken many exciting adventures through reading books such as ROSIE'S WALK and MOON BOY. They have words which will be useful in their poetry writing unit.

Her class has been composing many wonderful stories. They've written about falling leaves, the pumpkin patch, traveling trains, magic hats and frosty snowmen. Her student's writing folders and journals are filled with marvelous entries!

Mrs. Wallace's morning and afternoon blocks have been working on prereading skills. They have also incorporated journal writing into their class this year. In these journals, the children write and draw about anything they want. The more exposure they get to words and literature, the more they will feel O.K. about trying to spell words. It is not important that they spell any of the words right, the purpose is to provide a risk free environment for the children, so they'll feel "safe" about exploring language.

Mrs. Strope's morning block is writing poetry. They've also been writing letters to a 93 year old woman in Piggett, Arkansas, our penpals in Ary, KY, and will soon write a letter to our new president. We also had a multicultural study of the holidays in December. We learned about how Christmas is celebrated in Sweden, Germany, Italy, Spain, France and other countries. We have enjoyed doing journal writing with Mrs. Wallace's room.
After months of planning and discussion, Kentucky’s primary program is entering the action stage.

By the beginning of the 1992-93 school year, every school must address each of the critical attributes of the program:

1. Developmentally appropriate practice
2. Multi-age, multi-ability classrooms
3. Continuous progress
4. Authentic assessment
5. Qualitative reporting
6. Professional teamwork
7. Positive parent involvement

By the first day of the 1995-96 school year, every primary school program must be complete with each critical attribute fully developed and in operation.

The Primary Program of the Kentucky Education Reform Act calls for major changes in the methods Kentucky uses to educate our youngest children. The intent of the primary legislation is to allow more time for young children to develop so that they may experience success rather than failure. The Primary Program includes students ages 5, 6, 7, 8, and sometimes 9 (currently K-3rd grade). How will the Primary Program differ from our current program? Consider these changes:

1. Students will not be passed from Kindergarten to first, first to second, or second to third grade as they progress now. Instead, they will remain with one teacher throughout the first four years so that there will be continuity with the student’s program.
2. Students will receive a report card, but they will not receive grades. Instead students will be rated as R (Rapid Progress), S (Steady Progress), or N (Needs Help). Students will also receive a narrative report in which the teacher gives more specific information about the student’s progress. Students will also be assessed with checklists, teacher observations, and on performance tasks. Another key component to the assessment is the student portfolio. By maintaining a portfolio of student work, a teacher (and parent) can assess student progress over a period of time.
3. Teachers and students will rely less and less on basal textbooks, workbooks, and worksheets and will focus more and more on materials designed to enhance learning and critical thinking skills. More time will be spent in students actively involved in their learning, working with a partner cooperatively, and working in small groups. At times students will participate in whole group instruction. At other times students will be working independently. If students need to work on a specific area, the teacher will regroup for instruction.
4. The physical environment of the classroom will look different as we replace individual desks with tables and provide storage cubbies for students’ personal items. The room will also be arranged in learning centers which are challenging and inviting.

5. The teacher’s role will be one of facilitating the learning process rather than one of disseminating information.

Because there are so few primary program models in Kentucky, Kenton County chose to develop a model which would incorporate all the critical attributes as described above. Three of Kenton County’s elementary schools volunteered to pilot instructional strategies relative to the primary program. These schools are Beechgrove, Piner, and R.C. Hinsdale. As these schools become more involved in implementation, they are modifying the program to be more closely aligned with our primary school philosophy which encompasses these characteristics:

1. Fosters growth of children’s knowledge and understanding of themselves and their world.
2. Recognizes that language assists thinking and learning.
3. Allows for differences in learning rates, styles, knowledge, experience, and interests.
4. Leads children to develop knowledge, concepts, attitudes, skills, and processes.
5. Enables children to learn through active involvement and play.
6. Builds on what children “can do.”
7. Provides for an ongoing assessment of children’s progress.
8. Creates the climate of safety, success, and mutual respect necessary for lifelong learning.

The Primary Program is designed to be child-centered and to recognize and value the diversity of individual learner needs. As we note statistics that one of every five children experiences failure by the time s/he reaches fourth grade, it is evident that we need a major change in the primary school. The Kentucky Education Reform Act as related to the Primary Program is a vehicle for educators to effect this change. We must be successful in our endeavor.
Support For Kenton County Families

Kenton County is one of eight school systems in Northern Kentucky to receive a grant to establish a Family Resource Center. (Family Resource Centers have been created as part of the Kentucky Education Reform Act of 1990.) The center will serve the children and families of Ryland, Piner and Visalia Schools. The intent of Family Resource Centers is to support and strengthen families by identifying needs and linking families to resources available in the community. Centers help children and families to access such services as Day Care, After School Care, Health Care and Social Service referrals. Centers will offer education to enhance parenting skills, and programs for new and expectant parents.

The Kenton County Family Resource Center is located at Ryland Elementary School in a building adjacent to the school. The Center is open Monday through Friday from 7:30 a.m. to 5:00 p.m. with services available to the total community.

Many children and families go without needed services because they do not know what services are available in their community, or they may experience barriers that prevent them from obtaining services from agencies. The Center helps identify those barriers with families and assists them in connecting with community resources. Family Resource Centers build an effective partnership with parents and are a link between home, school and the community.

The Kenton County Family Resource Center is part of the initial statewide implementation of Centers across Kentucky. In an effort to support and strengthen families, 133 Family Resource and Youth Service Centers have been established to serve children and families in Kentucky.

For information about the Center and its services, call Carol Luzak, F.R.C. Director, at 356-7849. Visitors to the Center are also welcome between the hours of 7:30 a.m. and 5:00 p.m. Monday through Friday.

Mary Rogers State Teacher Of The Year

Mary Rogers loves teaching, a profession she has been dedicated to for 17 years. In her current position, as a teacher at the Northern Kentucky Treatment Center, that love of teaching and caring for her students has received statewide recognition.

Mrs. Rogers was honored at the Children's Residential Services Conference in Lexington where she received the Kentucky Teacher of the Year award. "If I had to describe Mary in one word it would be exuberant," said Northern Kentucky Treatment Center administrator Mike Gray. "Her genuine concern for her students and her enthusiastic upbeat manner makes her truly special."

The Northern Kentucky Treatment Center serves students that are in the care of the state. The State Cabinet for Human Resources recognizes an outstanding teacher each year. There are 200 teachers in the state's 30 programs. According to superintendent, Dr. John Forbeck, "Mary has done an outstanding job. Her contributions to her students and fellow employees are to be applauded."

Teaching the Future

Crescent Springs Elementary teachers, Sue Simpson and Joan Joseph, participated in the U.S. Space Academy program for teachers in Huntsville, Alabama.

The "Teaching the Future" curriculum provided 48 hours of educational instruction in principles of aerospace technology, space exploration, and discovery as applied to the nation's space program.

The five day course offered a unique opportunity to bring classroom teachers up-to-date on subjects involving mankind's adventure into space.

KAEOP Elects Schry

Phyllis Schry, secretary to the superintendent and the Board of Education, was elected vice president of the Kentucky Association of Educational Office Professionals. The Kentucky Association of Educational Office Professionals is the recognized state professional association for education office personnel.

Phyllis also serves on the KAEOP executive board and is the treasurer of the local association.
Assessment Update:

“Students To Face New Challenges”

For the last three years Kenton County students have participated in CTBS/4 testing. CTBS/4 provided one method to monitor student achievement on a yearly basis. According to Dave Yeager, director of pupil personnel, “Our students have responded with very positive test results. Across the board from elementary through tenth grade, our students have scored well above the national norm.” (see graphs below)

This year with the advent of KERA (Kentucky Educational Reform Act) students in grades 4, 8 and 12 will be evaluated using three different types of assessments. These three assessments will be used to measure student performance in six goal areas.

The performance goals are:
1. The application of basic communication and math skills;
2. The application of CORE concepts in science, mathematics, social studies, the arts and humanities, practical living skills, and vocational studies;
3. Becoming a self-sufficient individual;
4. Becoming a productive group member;
5. Thinking and problem solving;
6. Integration of knowledge across all subject areas.

Along with these performance goals 75 valued outcomes for students have been identified. Students will be expected to demonstrate the ability to complete real-life application for each valued outcome. Performance-based assessments will be developed for each valued outcome which will allow students to show how the knowledge and skills learned in the classroom can be used in real life.

In Summary

The Kenton County Schools are excited about Kentucky’s New Performance Based Student Assessment Program. Students will be encouraged to work beyond recall and recognition to approach problems and situations with higher-order thinking skills. This type of assessment will provide authentic learning measurements with well-defined expected student outcomes.

Attendance Figures
Reach All-Time High

Attendance in the Kenton County Schools has been on the rise for the last three years. Last year’s annual percentage of attendance for all Kenton County students was 95.7%. The faculty, staff, and parents should be congratulated for their efforts in making outstanding attendance a reality in our schools. Outstanding attendance is the first step in making our schools a true oasis for success.
Kenton Central -
A Second Chance At Success!

Kenton Central High School is an alternative school program designed to help At-Risk students receive their high school diploma. The majority of students attending Kenton Central are there due to poor grades and excessive absenteeism.

Since opening in September, 1989, Kenton Central has had 45 graduates.

The success stories of these graduates have been overwhelming. Von Hilliard, Kenton Central teacher, and Pat Brownfield, teacher assistant, keep in contact with their students. To date, only one graduate has not returned for a visit, or written a letter on their progress.

"We have been fortunate because our students have been great about keeping us updated on what’s happening with them. We would like to share the good news and success stories of some of our students," states Pat Brownfield.

April Martin ’91 is attending Eastern Kentucky University as a Pre-Med Major. Kristie Deatherage ’90 is a full time student at Northern Kentucky University majoring in education. Andy Balzer ’91 is currently taking 15 credit hours at Miami University. Tony Nickol ’91 is attending South Western Business College working toward an associate degree in computer programming. (He has made the Dean’s List with all A’s).

These students are just a few of Kenton Central’s success stories. Over 40% of last year’s graduates are attending colleges, universities or adult vocational schools.

We congratulate the Kenton Central High School graduates and look forward to hearing more on their continued progress.

Editors note - Two days after the picture of Scott Dietrick was taken he completed his course work and graduated from Kenton Central. Scott is hoping to attend Be. ea College and major in Art.

Adult Learning Center Opens

On September 3, 1991, Kenton County Schools opened a full-time adult learning center. It was made possible by a $37,693 grant from the Cabinet of Workforce Development. Housed at Ft. Wright School, 501 Farrell Drive in Ft. Wright, the center is open from 9:00 a.m. to 8:00 p.m., Monday through Thursday.

The center will help people obtain their GED Diploma and will also assist those individuals who want to improve their basic educational skills.

"Last year we were funded for two night classes a week. The expanded hours this year will make it easier for people to take advantage of the services we have to offer. We are excited about the center and want to provide programs and services that will benefit not only the Kenton County community but also businesses in our area," stated Elaine Littler, the center coordinator.

Approximately 36% of the people living in Kenton County do not have a high school diploma or a GED. We want to significantly reduce that percentage.

For additional information, contact Elaine Littler at the Kenton County Adult Learning Center (331-7742).

KERA = Kentucky Education Reform Act

The mission of the Kentucky Department of Education, as the national catalyst for educational transformation, is to ensure for each child an internationally superior education and a love of learning through visionary leadership, vigorous stewardship, and exemplary services in alliance with schools, school districts, and other partners.