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ABSTRACT

This document is designed as a resource to assist North Carolina schools in providing the best programs and strategies in the areas of acceleration, remediation, and intervention. The best practices described here are applicable to most students, including students with disabilities. The programs and strategies were validated as effective by the U.S. Department of Education's National Diffusion Network (NDN), are supported by research-based findings, or are supported by anecdotal evidence. The first section lists strategies for improving reading, writing, and mathematics proficiency; related publications by the North Carolina Department of Public Instruction; and other resources. The second section, submitted by the Black Leadership Caucus of the General Assembly, lists eight effective strategies for teaching African American students and notes related research and examples of possible actions. A section on effective strategies for teaching Native American students was endorsed by the Office of Indian Education. Brief descriptions and contact information are provided for 28 programs proven effective with American Indian students. A section on programs validated by the NDN profiles 22 programs, including grade level, resources needed, areas addressed, and a brief description. The final section presents 35 programs and strategies supported by research and positive anecdotal evidence. Grade level, resources needed, areas addressed, and descriptions of varying length are included. (SV)

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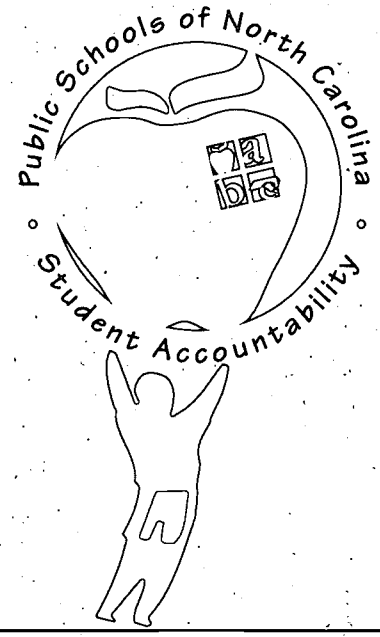
Intervention Practices & Strategies

January 2000



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INTERVENTION PRACTICES AND STRATEGIES

State Board of Education
Public Schools of North Carolina
Department of Public Instruction
Instructional and Accountability Services
Division of School Improvement

January 2000

Intervention Practices and Strategies

Contents

Introduction

There is a demand for schools to identify and align instruction and resources to support the implementation of more demanding promotional standards for all students. This document is designed to serve as a resource to schools to assist them in providing best programs/practices and strategies in the areas of acceleration, remediation, and intervention. It includes a sampling of the numerous existing programs/practices and strategies that work to increase student academic achievement in reading, writing, and mathematics in grades K-12. It is not intended as an exhaustive listing and in no way minimizes the significance other programs/practices and strategies may have in improving student academic performance in the stated areas.

The best practices described here are applicable to most students, including students with disabilities. The same knowledge, skills, concepts, understandings, and attitudes expected of typical students are expected of most students with disabilities. To assure that students with disabilities are successful in school, the teacher must have a thorough understanding of the unique learning needs of each student and (1) make appropriate adaptations in materials, class assignments, instructional approaches, classroom routines, and behavior management and, (2) arrange the classroom environment to accommodate a wide diversity of skills and abilities.

Conscientious efforts were made to identify programs/practices and strategies that have proven effectiveness. The programs/practices and strategies presented here were either validated as effective by the United States Department of Education under the auspices of its former National Diffusion Network, are supported by research-based findings, or are supported by positive anecdotal evidence. Schools are encouraged to identify and investigate further those programs/practices and strategies that best meet their needs for helping students to reach promotional standards.

Should you have questions and/or require assistance in locating additional information on the programs/practices included here, please call the Division of School Improvement at (919) 715-1905.

Strategies for Improving Reading, Writing, and Mathematics Proficiency

There is no single resource or strategy that should be used to improve student performance. Rather, schools may use a variety of appropriate ones to meet the particular needs of their students. It is important that resources are aligned with the curriculum and instruction and that research-based and promising best practices are followed.

The following compilation of strategies and resources completed by State Assistance Teams and the Division of School Improvement is offered to help improve teaching and maximize learning in the classroom.

Reading:

- Focus on the keys to motivation: success and usefulness. Students must be successful and must see the usefulness in what they are doing. They need to know when, why, and how they will use the skills, strategies, or information taught.
- Help students in developing more effective decoding skills which will facilitate their independent reading and comprehension.
- Teach book and print awareness concepts and phonemic awareness to develop alphabetic principle for use in reading and writing.
- Teach phonics and structural analysis to enable students to decode words when reading text; i. e., letter-sound associations, knowledge of syllables, prefixes, suffixes, root words).
- Teach comprehension strategies such as summarizing the main idea, predicting events and outcome of upcoming text, making inferences, discussing author's intent and word choice, monitoring for coherence and understanding.
- Align basal reading series, literature trade books, and other classroom resources to *North Carolina Standard Course of Study* goals, objectives, and competencies.
- Align daily and weekly lesson plans with the *North Carolina Standard Course of Study.*
- Involve local education agency's central office and school-level staff in on-going development of curricular and instructional plans for a school.
- Monitor, update, and support a school's curricular and instructional plans.
- Implement a balanced reading program including read aloud, shared reading, guided reading, independent reading, content-area reading, discussion, and writing.
- Schedule 120-180 minutes daily for the literacy program.
- Provide daily direct instruction on each student's instructional reading level.
- Provide daily opportunities for independent reading (grades K-2, 10-20 minutes; grades 3-5, 25-35 minutes).
- Provide literary, informational, and practical texts in each classroom to include a wide range of literature and content-area materials.
- Encourage teachers to model their own reading, writing, and thinking processes.
- Model and scaffold higher order thinking strategies and skills.
- Teach comprehension strategies and skills using a variety of texts across the disciplines (i. e., use prior knowledge and experiences, identify main idea and details, summarize, make inferences, make connections, use metacognitive strategies, etc.).

- Incorporate reading, writing, and discussion in all content areas.
- Assist students in developing a repertoire of questions for students to ask themselves, to ask the author, and to ask about the text content before, during, and after reading.
- Provide opportunities for students to read 25 or more books per year appropriate to their independent reading level.
- Provide a variety of texts: decodable texts for practice and reinforcement of letter-sound associations; content-area texts for interest, content knowledge, vocabulary expansion; chapter books for practice and growth in reading competence; leveled texts to promote self-selection and reading competence; literature on a variety of topics at different levels from different genres.
- Relate reading and writing to everyday life situations.
- Expect each student to read at home daily (grades K-2, 10-20 minutes; grades 3-5, 20-40 minutes) with assistance or independently.
- Use various types of ongoing assessment to plan and monitor instruction.
- Use K-2 Summative Assessments and EOG Test results to plan appropriate instruction for Achievement Levels I, II, III, and IV to ensure progress for all students.
- Use NCDPI resources and other resources to guide instructional planning and monitor students' achievement levels in reading and writing.
- Teach test-taking strategies.
- Plan and conduct Family Literacy Nights for students, parents, teachers, and administrators.

Writing:

- Teach and monitor the writing processes.
- Demonstrate and guide students in a variety of strategies writers use to:
  get topics,
  narrow focus,
  organize ideas,
  get started,
  revise for content,
  edit for error reduction, and
  publish works.
- Use graphic organizers as a means of helping students plan and structure their writing.
- Plan instruction such that there are daily opportunities for meaningful and purposeful writing for a variety of audiences.
- Teach conventionally correct spelling, grammar, and mechanics through focused instruction and practice.
- Conduct student-teacher conferences to identify writing strengths and areas for needed improvement.
- Use good literature as a model for helping students improve their own writing.
- Guide students in working selected pieces through to publication using various writing processes.
- Allow students opportunities to collaborate and write in small groups.
- Share and display student writing.
- Promote an understanding of focused holistic scoring.
- Train volunteers and school support staff in writing processes and criteria to serve as writing

coaches to fourth, seventh, and tenth graders.

- Provide opportunities for students to develop writing proficiency (e.g., writing camps, writing olympics, writing contests, bookmaking, anthologies, school publications, etc.).

Mathematics:

- Align all textbooks and other instructional materials to the *North Carolina Standard Course of Study.*
- Use NC DPI publications' strategies for instruction in mathematics, mathematics testlets, *Mathematics Linking Series* and *Math Superstars III* as primary resources for instruction
- Incorporate the use of manipulatives into daily instruction.
- Make calculators easily accessible and encourage students to use them when appropriate; however, students should master and be able to independently apply math skills.
- Teach problem solving in all strands of the mathematics curriculum.
- Schedule 90 minutes of math instruction daily.
- Use mathematics pacing guide to insure adequate time for teaching all objectives.
- Administer quarterly benchmark assessments to evaluate mathematics program and guide planning for reteaching objectives not mastered.
- Target students scoring at Achievement Levels I and II on the NC End-of-Grade Mathematics Test and provide additional instruction during, before, and/or after school.
- Challenge and accelerate students scoring at Achievement Levels III and IV.
- Incorporate End-of-Grade Test vocabulary and test format into daily instruction.
- Incorporate use of computers into mathematics program.
- Provide for ongoing review.
- Expect students to talk about math and work in cooperative groups to solve problems.
- Use the overhead projector to demonstrate and model mathematics.
- Make learning mathematics fun and non-threatening by using games and interactive activities.
- Encourage students to generate and explain alternative ways to solve problems.
- Plan and conduct Math Family Fun Night for students, parents, teachers, and administrators to participate in math games and activities.
- Ask questions that require students to justify and explain their thinking.
- Relate mathematics to everyday problems and applications.
- Incorporate writing into mathematics instruction.
- Place strong instructional emphasis on application of mathematics concepts.
- Teach problem solving strategies (i.e. use logical reasoning, make a table or an organized list, guess and check, look for a pattern, make it simpler).
- Practice mental math and various estimation strategies.
- Use various types of ongoing assessment.
- Make assessment an integral part of teaching.
- Display student work reflecting the *North Carolina Standard Course of Study* mathematics goals and objectives in classrooms and halls.
- Integrate mathematics into other subject areas and the real world.
- Provide students with open-ended problems to solve.

North Carolina Department of Public Instruction Publications:

- *Standard Course of Study* (English Language Arts K-12, Mathematics K-12)
- *Reference Guide for Integrating Curriculum*
- *Linking Curriculum, Instruction and Testing Series* (Reading and Mathematics)
- *Reading: Assessing The Strategies, Comprehension and Characteristics of Middle and High School Students*
- *English Language Arts Grade Level Competencies - Competency Elaboration's for Grades K-2*
- *Reading and Writing Matrices*
- *Mathematics Matrices*
- *K-2 Literacy Assessment End-of-Year Summary*
- *K-2 Literacy Assessment Forms and Procedures Manual*
- *K-2 Literacy Assessment: Summative Narrative Booklist*
- *Ideas That Work for Mathematics, Grades 1 and 2 Assessment*
- *Item Bank Testlets in Reading and Mathematics (Grades 3-8)*
- *End-of-Grade Released Tests* (Forms L and M)
- *End-of-Grade/End-of-Course Released Open-Ended Items*
- *Using Testlets*
- *Teaching Narrative: Write On*
- *Literature To Be Read Aloud* (K-8)
- *Writing in the Read World: The Primary Grades*
- *Evaluating and Improving Student Writing and Writing Instruction: A Systematic Approach*
- *Spelling In Use*
- *Literacy Strategies*
- *North Carolina Guide for the Early Years*
- *Strategies for Instruction in Mathematics* (Grades K-5)
- *Superstars II* (Primary, Intermediate and Grade 6)
- *Superstars III* (Primary, Intermediate and Advanced)
- *Helping Your Child Learn Math*
- *Resources for Algebra*
- *Geometry Strategies*
- *MathStars, Problem-Solving Newsletter*
- *Integration Strategies Through Science*
- *Diagnostic Matrices for Instructional Planning in Reading Grades 3-5*

Other Resources:

- *Test Ready*
- *Blast-Off*
- *Sharpen Up! (Reading and Mathematics)*
- *Buckle Down on North Carolina Mathematics*
- *NC Reading Coach*
- *NC Writing Coach*

Other Resources-cont'd.

- *NC Mathematics Coach*
- *The Problem Solver (Grades 1-8)*
- *The Problem Solver with Calculators*
- *Test Magic*
- *A+ Learning Systems Computer Software*
- *Accelerated Reader Books and Software*

Effective Strategies for Teaching African-American Students

Submitted by the Black Leadership Caucus of the General Assembly, these are strategies suggested to improve the academic achievement of African-American students

Strategy	Related Research	Examples/Possible Actions
Focus on reading and mathematics	• President Clinton's goal to make sure every child can read by third grade is a great start, but researchers say the critical time comes even earlier. Children who are not reading at grade level by the end of first grade face 8 to 1 odds against ever catching up. • Kindergarten should be about getting basic reading and mathematics. • Research indicates that schools should test kindergartners for their ability to recognize sounds and check again in the middle of first grade. Every district in the country should test children in mid-first grade to see if they can decode simple words and basic patterns; if they can't, that's the time to do something about it. • Many schools of education have discontinued teaching their students how to teach phonics or how to test for phonemic awareness. Districts should not hire teachers who do not know how to diagnose and fix reading problems. In mathematics, students need to master concepts before moving on to the next level •	• Judy Codding (former principal, Pasadena High School), Pasadena, CA When only two of the school's incoming freshmen scored above 80 percent on an algebra readiness test, instead of watering down the algebra course or herding students into a "math for dummies" class, the school made sure ninth and tenth graders mastered the math skills and concepts they missed earlier by taking <u>two</u> math courses every semester. The school really made mathematics a focus and eliminated vocational education and other elective courses in order to hire more mathematics teachers. Students' scores on standardized math tests went from 26th percentile to the 57th percentile.

Strategy	Related Research	Examples/Possible Actions
Increase the amount of time spent learning	• "The more you study, the more you learn."	• Three-minute test to check on kindergartners awareness of sounds made by letters
Invest in teachers	• The single most important determinant of how students achieve is their teacher's qualifications. • A University of Knoxville, TN study found that the quality of teaching in a student's past accounted for differences in standardized test scores of as much as 50-60 percentile points.	• Look at teachers' qualifications. Do they have full certification and a college major in their field of teaching?
Set goals, and assess students' progress	Giving teachers incentives leads to higher test scores.	

Strategy	Related Research	Examples/Possible Actions
Shrink the size of classes and schools	• Student/Teacher Achievement Ratio (STAR), Tennessee, tracked 11,000 students who were assigned randomly to regular classes (around 25 students), small classes (around 15), and regular classes with an instructional aide. The children in the small classes outperformed those in the regular classes, with or without an aide. • In an Educational Testing Service study of 4th and 8th graders, the math scores of inner city 4th graders in classes of fewer than 20 students were three quarters above those of their counterparts in larger classes. • Research indicates that small changes in class sizes do not yield significant results, but moving from 20 to 30 students per class to fewer than 20 per class does yield results. • Smaller schools (fewer than 1,000) for high schools and fewer than 500 for elementary schools) have higher test scores, less absenteeism, lower dropout rates, less violence and vandalism, better student attitudes, better student faculty relationships, and stronger ties to the community.	• Use diagnostic tests. There is a difference between diagnostic tests and standardized tests. (A standardized test compares mountain climbers to each other, but a diagnostic assessment tells the climbers and their coaches where they are on the mountain.) • Teachers need to be able to say, "We covered the material" and also ask and answer, "Did the students learn it?" • Longer school days, longer school years, more graded homework • In addition to investing in curriculum programs such as *Success for All*, *Accelerated Schools*, and *Modern Red Schoolhouse*, schools should also invest in professional development. • In the Colorado Mesa Valley School District, teachers analyzed their student's performance in mathematics, examined how they had been teaching computational skills, read the research, and sought out training in that area.

Strategy	Related Research	Examples/Possible Actions
Start early	• Students' home backgrounds are responsible for roughly half of their student achievement. • Data from Parents as Teachers (PAT) programs show that the comparative advantage applies to children from all backgrounds and continues through elementary school. • High/scope curriculum is credited with boosting children's IQ scores an average of 23 points. • High/Scope still tracks its "original" students now in their 40's. These long-term studies indicate that every dollar spent on the preschool program saves $7 in special programs and services later in life. Robert Slavin (John Hopkins University) says our priorities in America are upside down. Research shows that tutoring and intensive instruction in the early grades can keep most children out of special education. School districts avoid early intervention programs because they are expensive and wait until children are failing, in trouble, and dropping out before they spend money on them.	• Parents as Teachers (PAT)- St. Louis, MO This program recruits young parents in the hospital maternity wards. For the first three years of a child's life, PAT offers personal visits by trained parent educators, routine screenings, meetings with other parents, referrals to specialists, and other resources. • High/Scope Perry Preschool, Ypsilanti, MI The school's curriculum encourages active learning and divergent thinking.

Strategy	Related Research	Examples/Possible Action
Support teachers' professional development	• A strong professional development program is at the heart of every lasting school improvement. The most effective professional development programs are the ones teachers seek out or develop themselves.	
Use trained tutors	• Early one-on-one intervention with a trained tutor can set kids on the right academic track and save money by reducing the number of students who later need special education and remedial services. • Title I and other federal funds can be used to help pay for tutors. However, most schools continue to use the grants for pullout remedial classes and instructional aides strategies that researchers say are not as effective as one-on-one tutoring.	• *Success for All* schools train teachers as reading tutors, who then spend half their day in classrooms and the other half working with individual students in 20-minute sessions.

Effective Strategies for Teaching Native-American Students

The model programs presented here are endorsed by the Office of Indian Education, Washington, DC. They have proven effective in working with American Indian students.

Accelerated Schools

Accelerated Schools is a comprehensive school reform model, developed by Stanford University economist Henry Levin. The program is designed to improve student learning through (1) enriched curriculum and instruction, (2) improved school climate, and (2) school organizational changes based on input from teachers, students, family and community. Accelerated Schools is a philosophy more than a curriculum; thus it may look different in each school. The core principle is that students at risk of failure should be accelerated rather than remediated and should be given the kind of high expectations curriculum that is typically offered to gifted students. Accelerated schools commit to collegial, school-level decision making and increased parent involvement. This model is directed at kindergarten through junior high school students.

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ATLAS Communities

The Atlas model for grades K-12 was developed by a team that includes the authors of the School Development Program and the Coalition of Essential Schools, two other reform models which are discussed in this document. Other partners are Howard Gardner, the Harvard University psychologist noted for his theories of multiple intelligences, and the Education Development Center, a highly regarded research-and-development organization. ATLAS schools include pieces from each of the founders' philosophies, making extensive use of active, project-based learning; assessments that stress portfolios, performance examinations, and exhibitions; and commitments to meet children's individual needs and pursue parent and community involvement. ATLAS is used in "Pathways" groups made up of high schools and their feeder schools, whose staff work with each other to create coordinated, continuous experiences for students. Teams of teachers work together to design curriculum and assessments based on locally defined standards. Teachers collaborate with parents and administrators to make curricular and management decisions.

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Audrey Cohen College: Purpose-Centered Education

The author of this school model began with a women's training program that evolved into an unconventional higher education institution offering degrees in social services and later in business. The college then opened a junior high school and subsequently began working with a high school and several elementary schools. In a Cohen school, subject matter is not divided into traditional subject areas but into "dimensions" such as values and ethics, skills, and systems. Curriculum and instruction are organized around a single, developmentally appropriate purpose for each semester, such as "building a family-school partnership" for kindergartners or "improving the environment" for fifth graders. Teaching methods emphasize project-based learning and community service.

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Basic School Network

This network of elementary schools is based on the work of Ernest L. Boyer, former president of the Carnegie Foundation for the Advancement of Teaching. The Basic School plan is a comprehensive school-wide initiative for grades K-6 that seeks to transform the school organizationally, educationally, pedagogically and strategically to achieve quality education for all students and success for every child based on his or her aptitude and interests. The program's principles include creating a community of learning with active parent/family and community involvement; creating a coherent, interdisciplinary curriculum with literacy as the primary goal; enriching the learning environment through small classes, flexible teaching schedules and student groupings; and emphasizing character development of students.

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Coalition of Essential Schools

This is a site-based reform program involving nine common principles which envision schools where teachers have fewer students and, thus, come to know them much better. In CES schools, decision making is collegial, and learning is interdisciplinary organized around "essential questions."

Students are actively involved in learning rather than being passive recipients of information. Students demonstrate new skills through projects and exhibitions, rather than through multiple-choice test scores.

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(*Horace*, the journal of the Coalition of Essential Schools, is published five times per year.)

Community for Learning (formerly known as the Adaptive Learning Environments Model)

This is a data-based, comprehensive K-12 classroom and curriculum redesign program that focuses on high academic achievement and positive student self-perception. The program includes a site-specific implementation planning framework that incorporates a school-wide organizational structure and a coordinated system of instruction and related services delivery. This program is a product of over 20 years of research and development; school-based implementation provides an alternative approach to educational reform for schools striving to be responsive to the learning needs of students with varying abilities, experiences, and socioeconomic backgrounds. The model accommodates and builds on students' differences in learning styles and rates of learning by providing adaptive instruction in which a variety of instructional methods are adopted and tailored to the needs and learning characteristics of individual students.

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Co-NECT Schools

Co-NECT schools focus on interdisciplinary projects that incorporate technology and connect K-12 students with ongoing scientific investigations, information resources, and other students beyond their own school. Co-NECT uses technology to enhance every aspect of teaching, learning, professional development, and school management. Cross-disciplinary teaching teams work with clusters of students, most of whom stay with the same cluster and teacher for at least two years. A school governance council, which includes teacher, parents, business/community representatives, and administrators, runs the school.

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Consensus Standards Model

This is a comprehensive school reform project of the Center for Research on Education, Diversity, and Excellence, University of California, Santa Cruz. The model is based on standards of effective pedagogy for at-risk students. The standards reflect the intentions of (1) the standards-based reform movement to ensure high expectations for all students and (2) those teaching and learning principles on which educators, researchers, and program developers across theoretical domains agree. The standards also represent consensus in educational research and theory about maximizing teaching and learning for all students, but especially those at risk due to limited-English proficiency, cultural diversity, poverty, race, or geography. This model is designed for use in K-12 schools.

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Core Knowledge

Core Knowledge is a curriculum reform program for grades K-8 that develops students' cultural literacy by providing important knowledge about history, literature, geography, math, science, art, and music. It can fit into conventional school settings with relative ease. The program supplies clear-cut content of instruction, yet leaves lesson planning and materials development to teachers. Although it has a strong academic focus across curriculum areas, the program is less directive than some models with respect to the classroom practices used. Collaboration among teachers, consensus building, and parent involvement are all integral to this program.

Contact: Core Knowledge Foundation
Telephone: (800) 238-3233
Web Site: http://www.coreknowledge.org

Different Ways of Knowing

This curricular reform model is an interdisciplinary social science approach designed to strengthen K-6 grade students' verbal, math, logical, social, and artistic skills. Arts, literature, and other disciplines are infused into existing social studies courses without reorganizing schools. Use of this strategy calls for knowledge about Gardner's Theory of Multiple Intelligences. Student-centered curriculum materials reinforce students' self-confidence and interest while accommodating their individual cultures or learning styles. Increased family and community involvement is encouraged, and emphasis is placed on expanding the professional role of regular classroom teachers.

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Direct Instruction

Direct Instruction refers both generally to a skill-oriented method of teaching through extensive drill-and-practice and specifically to the Direct Instruction System for Teaching Arithmetic and Reading (DISTAR). This is a scripted, systematic, phonics-based reading program. It is both a teaching method and a curriculum for the early grades, rather than a school wide model. The method is often cited as being especially successful with at-risk children.

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Efficacy Institute

This approach to school change draws on (1) motivational and other factors that influence students to perform at a high level and (2) research regarding teaching practices that elicit strong performances from students. It includes a plan for producing marked and measurable improvement in student achievement in one or more schools or an entire school district over a period of three to five years. Designed for grades K-12, the Efficacy approach grows out of the conviction that a student's academic achievement is fueled by high expectations and emphasis on acceleration, not remediation. The approach challenges the view that learning capacity is a "fixed" asset. It also challenges the idea that only a few students, namely those identified as having a large capacity for learning, can benefit from an enriched and challenging curriculum.

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Expeditionary Learning Outward Bound

Under this model for grades K-12, schools focus on purposeful, intellectual investigation called learning expeditions. These expeditions are long-term, inter-disciplinary projects that require students to work both inside and outside the classroom. Students actually spend about a quarter of their time outside the school. Some subject matter is taught in a relatively traditional way, but much of the in-school study involves hands-on projects. Students and teachers stay together for more than one year; teachers work collaboratively through team teaching and shared planning; and students are not tracked.

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Web Site: http://www.ncrel.org/skrs/areas/issues/students/atrisk/at6lk57a.htm

Families & Schools Together (FAST)

This is a two-year, school-based, elementary level classroom and curriculum redesign program which (1) builds bonds, trust, and supportive networks for families and children; (2) increases parent involvement with children both at school and at home; and (3) increases student resiliency, attention span, and readiness to learn. FAST uses a highly structured activity-based approach to promote the development of school-parent-community-child partnerships. The FAST curriculum is designed to enhance parent-child interactions, empower parents, and build parent support groups.

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Foxfire

Foxfire is a K-12 curriculum reform program. Its design is essentially a teacher network that promotes an active, learner-centered approach to education and fosters frequent interaction between students and their local communities. Teacher collaboration for developing new materials and lesson plans is essential. Professional development opportunities for teachers include workshops, networks, and institutes designed to promote new skills and pedagogies and to share expertise with colleagues.

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Mountain City, GA 30562
Telephone: (706) 746-5828
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Web Site: http://www.foxfire.org

High Schools That Work

High Schools That Work (HSTW) is a network of schools that have subscribed to the idea that high schools should eliminate the general track and instead teach the same rigorous academic content to general and vocational students taught to college bound students. The program does not prescribe a specific curriculum but, rather, a course load that emphasizes both vocational and academic skills, including school-to-work programs. Some schools work toward eliminating tracking and offer the same courses to all students most offer "applied" courses that teach the same high-level material in a more hands-on manner.

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Web Site: http://www.sreb.org/programs/hstw/high.html

Higher Order Thinking Skills (HOTS)

HOTS is a creative curricula centered on developing middle grades (4-8)students' higher order thinking skills through the use of technology and Socratic and drama methods as alternatives to the drill and practice approach of many Title I programs. The program is designed particularly for at-risk and special needs students. All materials and teaching procedures associated with this curricular reform model are included in the cost of this program.

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Modern Red Schoolhouse

The Modern Red Schoolhouse is a relatively traditional K-12 school reform model. It focuses on mastery of particular subject matter in core academic subjects and achieving the kind of "cultural literacy" envisioned by author E.D. Hirsch, Jr. Progress is measured by a series of rigorous tests that include multiple-choice and essay questions. In addition, students complete investigations and give oral reports. However, the design is not entirely "back to basics; "it envisions multi-grade classrooms where students work at their own pace as outlined in contracts that are negotiated with the teacher, student and parents. It also uses an extended school day and year for some students.

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More Effective Schools/Teaching Project

The More Effective Schools/Teaching Project (MES/TP) is a district-wide approach to improving schools by applying principles and elements identified in research as characteristic of effective schools. Effective schools are defined as those in which students can achieve mastery in basic skills. A gap in levels of achievement between students of different genders and/or racial, ethnic, or socioeconomic backgrounds indicates the failure of the school to educate all students effectively. Such gaps are revealed by disaggregating student performance data according to ethnicity, socioeconomic status, and/or gender. MES/TP is a system for school improvement that describes a series of steps and identifies guiding principles for planning a district-wide initiative, implementing the plan, assessing its impact, and perpetuating its benefits over time. MES/TP provides training, staff development, consultation, and curriculum materials. It does not, however, prescribe a curriculum or a teaching philosophy. This approach is for use in K-12 schools.

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National Alliance for Restructuring Education

The National Alliance program is directed at reforming school systems. It represents a partnership of states, districts, schools, and research organizations, headed by the National Center for Education and the Economy, a think-tank best known for its work on professionalizing teaching and for connecting schools with the vocational demands of the future. The Alliance aims to alter virtually every facet of K-12 education through changes in governance, a reliance on standards and new assessments, links to social services and public engagement. The core tenet is adapting, for education purposes, the principles and techniques known in the business world as "high-performance management." This includes decentralized decision making, empowerment of workers, accountability, and incentive systems. The model also calls for project-based learning and for students to work toward a "certificate of mastery" rather than just accumulating time in class.

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National Writing Project

This is a curricular reform program designed to improve K-12 student writing skills through specific instructional strategies. Teachers are provided professional development opportunities at a summer institute and through workshops and a support network which encourages teachers to share their expertise with each other.

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Paideia

The Paideia Proposal, published in 1982 by a group led by philosopher Mortimer J. Adler, was one of the first whole-school reform models. The central tenet of this curricular reform model is that all students should receive a rigorous academic curriculum without tracking. The most widely adopted part of the Paideia strategy is the use of the Socratic method of teaching through classroom discussion; the model calls for combining this with coaching students through independent projects and more traditional didactic instruction. It supports block scheduling, integration of learning styles, cooperative learning, and interdisciplinary unit planning. The model is for K-12 grade levels.

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Reading Recovery

Reading Recovery was created out of recognition of the central role that reading competency plays in a child's overall success as a learner. It is a highly individualized and intensive pull-out tutoring program carried out by specially trained teachers. Its goal is to help first graders most at risk of failure make accelerated progress so that they reach the average level or above their class in reading and writing. The key elements of Reading Recovery are intensive staff development programs for both teacher leaders and teachers; daily one-to-one instruction for the lowest-achieving first graders; continuing education for trained teachers and teacher leaders; and ongoing evaluation to monitor results and to provide support for participants so they can improve implementation of the program. Although the tutoring sessions follow a set format, teachers also create individualized programs based on the skills, needs, and interests of each child.

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Roots and Wings

Roots and Wings is a comprehensive, pre-K through grade 6, whole-school reform model which complements the "Success for All" reading program by adding curricula in other subjects. The core premise that schools must do whatever it takes to ensure student success represents the heart of the Roots and Wings effort. The curriculum emphasizes the use of cooperative learning, interdisciplinary projects, and multi-age classrooms. The model also calls for extensive family support efforts, including a full-time coordinator, school-based health clinics, and efforts to reach out to parents and children before they reach school age.

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School Development Program (Comer)

The SDP, based on psychologist James P. Comer's work with inner-city elementary schools in New Haven, CT, focuses on developing the ideal climate for nurturing the social and emotional health of students in kindergarten through junior high school. Parental involvement is a major focus. A planning and management team composed of staff and parents holds decision making power and drafts a plan for the school. Meanwhile, a student and staff support team consisting of the principal, school counselors, a social worker and other community representatives works to link students and families with an array of support services. This program has many research-based practices.

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Success for All

Success for All is a research based program for at-risk children grades K-6 and is designed to shift the curricular focus from remediation to prevention. This model stresses reading and language arts, emphasizing reading in the early grades and one-to-one tutoring for students who are failing. It operates under the philosophy that all students can and should succeed and that schools will do whatever it takes to get each child reading successfully by third grade. Another primary component is family support and outreach efforts. These vary in intensity by school. The program, developed by Johns Hopkins University researcher Robert E. Slavin, is used primarily in Title I schools and boasts an especially strong body of research supporting its efficacy. Success for All incorporates the following practices: frequent high-quality academic interactions among teachers and students, grouping practices, tutorials and metacognitive strategies and frequent assessments to improve learning.

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Website: http://www.successforall.net

Talent Development Schools

The Talent Development model was developed at Johns Hopkins University and piloted at an inner-city Baltimore high school. Its central idea is to create small learning communities in the form of career-focused academies that function as schools-within-a-school. The model calls for making school work relevant with a career focus; providing a core curriculum for all students based on high standards; using active learning methods and performance-based assessments; and helping students with problems, whether they are academic, family, disciplinary or personal in nature. Social workers and mental health professionals are part of the school staff, and an alternative after-hours school in the building is designed to meet the needs of students presenting the most difficult discipline problems. This model is designed for middle and high schools.

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Urban Learning Center (Los Angeles Learning Center)

This reform program, usually known as Los Angeles Learning Center, unifies Pre K-12 in one learning center. Learning centers work to become a central part of the local community and address the educational, social, and health needs of students and their families. The curriculum, developed cooperatively by teachers, sets high standards for students. The model employs such methods as multi-age or nongraded classes, cooperative leading, and team teaching. Continuing professional development is also emphasized. Both the management and governance of schools is collaborative and community-oriented. Older students may enter an academy to prepare them for postgraduate education or transition to the work world. Students have the opportunity to participate in career courses and internships.

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This listing of programs has been compiled by ORBIS Associates from text and references taken from:

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- *Models of Excellence Initiative.* Brooklyn, NY: Office of New York City Schools, New York State Education Department; 1998.
- *What Do We Know: Widely Implemented School Improvement Programs,* by Margaret C. Wang, Geneva D. Haertel, and Herbert J. Walberg. Philadelphia: Temple University, Center for Research in Human Development and Education; 1997.
- *U.S. Education Department's National Institute on the Education of At-Risk Students Web Site* (http://www.ed.gov.pubsitoolsforschools)
- *Teacher Magazine Web Site* (http://www.teachermag.orglcontext.orgs)

Programs Validated through the National Diffusion Network

The former U.S. Department of Education's National Diffusion Network (NDN) assisted public and private educational institutions in sharing exemplary programs, products, and processes. Two things distinguished the NDN as a dissemination system: a rigorous procedure for validating the effectiveness of educational programs and a person-to-person support system which assisted teachers using NDN programs. A Program Effectiveness Panel judged the evidence of program effectiveness and admitted projects to the NDN. In addition, a dissemination system implemented by state facilitators, program developers, and locally based certified trainers insured that programs, many of which are still in place, maintained the standards of the prototype.

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City As School (CAS)

Grade Level(s): 9-12

Resources Needed: Staff development and follow-up

Area(s) Addressed: Combines academic learning with the world of work for high school students, including at-risk students.

City As School is a high school program, which links students with hundreds of learning experiences throughout the community. Students spend up to 30-40 hours per week in learning experiences utilizing community resources of business, civic, cultural, social or political nature. Academic credit is granted for each learning experience successfully completed. Structured, student-centered Learning Experience Activity Packets (LEAP) help to identify and evaluate discrete areas of instruction in each resource. Students attend resources for one cycle (9 weeks) or two cycles and receive credit or no credit rather than letter or numerical grades. Specialized, small classes support activities at community resources. Weekly seminar groups serve as a forum for discussions of guidance, academic, and social issues. CAS may be a stand-alone school or a program within a school.

CLIMB Plus

Grade Level(s): K-12

Resources Needed: Staff development; CLIMB Plus materials

Area(s) Addressed: Reading, writing, study skills, and mathematics

The program provides a means to tie together existing curriculum, textbooks, materials, goals, and outcomes in a clear, concise program tailored to an individual school's needs. It creates a cohesive curriculum framework for continuous student progress, addresses Goal 3 of the National Goals for Education, and improves the performance of all students in reading, writing, study skills, and mathematics through the following components:

Curriculum framework, a coordinated program of instruction produced by teachers which includes

- planning arrays,
- writing bank,
- assessments,
- simplified record keeping system, and
- strategies.

Training provides teachers with a systematic way to manage a student's instructional program in reading/writing and mathematics. Training includes

- use of the curriculum framework,
- procedures for classroom management and implementation,
- active learning strategies and models
- content reading and study skills strategies for all disciplines, and
- follow-up training.

The management design coordinates and integrates personnel, materials, and services; provides a design for communication between classroom instruction and support services; offers a system for coordination within and across grade levels and programs; fosters a collaborative team approach to achieve instructional goals; and delineates roles for project coordination.

Coca-Cola Valued Youth Program

Grade Level(s): 7-8

Resources Needed: Existing school staff, materials for each staff member

Area(s) Addressed: All curricular areas

This is a cross-age tutoring program designed to reduce dropout rates among middle school children grades 7-8 who are limited-English-proficient and at risk of leaving school.

The instructional strategy incorporates five major components:

(1) including classes for tutors,
(2) tutoring sessions,
(3) field trips,
(4) role-modeling, and
(5) student recognition.

The support strategy involves curriculum, coordination, staff enrichment, family involvement, and evaluation activities.

Evidence of effectiveness includes findings that student tutors participating in the program demonstrate significantly higher reading grades than the comparison group; significantly greater gains on the Piers-Harris Self-Concept Scale than comparison students; and make significantly greater gains on the Quality of School Life Scale than the comparison group.

Cooperative Federation For Educational Experiences (COFFEE)

Grade Level(s): 9-12

Resources Needed: A centralized facility that is staffed to serve several schools or even several districts

Area(s) Addressed: Academic, occupational, pre-employment internships and physical education

COFFEE is a comprehensive dropout prevention/reclamation program for adolescents. The program includes instruction, occupational training and counseling for at-risk youth from seventeen school districts. The characteristics of this student population are as follows: histories of academic failure, truancy, poor self-concept, family problems, and social misconduct. The program integrates five components:

- an academic component, which provides relevant basic skills instruction based on an individualized education plan;
- an occupational component, which provides hands-on educational experiences in an adult-like work environment preparing students for the high-demand jobs of the 90's;
- a counseling component, which provides character building, occupational and emotional support utilizing existing state, regional, and local service organizations;
- a pre-employment education component, which is designed to enhance the employability of at-risk students through classroom instruction and student internships;
- a physical education component, which offers a program of recreational activities adapted to enable students to develop a sense of self accomplishment and group cooperation. The occupational component includes training programs in the computer maintenance and repair, word processing, building and grounds maintenance, and horticulture/agriculture.

Creating Independence through Student-owned Strategies (Project CRISS)

Grade Level(s): 4-12

Resources Needed: Two or three-days inservice

Area(s) Addressed: All subject areas

The program is designed to help students learn more effectively throughout the curriculum. It focuses on teaching students how to learn through reading, writing, talking, and listening, and offers creative and motivating strategies for students in the regular classroom, and, in addition, is effective with special needs and "at-risk" students.

The program focuses on the following areas:

- principles and philosophy of learning;
- the author's craft and design;
- the conversation of learning;
- active strategies for learning-generating background knowledge, concept mapping, free-form mapping, and summarizing;
- organization for learning-notes, charts, and story plans;
- informal writing to learn-learning logs;
- formal writing to learn-reports and essays; and
- authentic assessment strategies.

De La Salle Model

Grade Level(s): 9-12

Resources Needed: Facility for school-within-a-school, high-interest low-skill level materials for classroom use, appropriate materials and space for vocational classes, and faculty training and inservice. Costs are similar to costs in a public school system.

Area(s) Addressed: All curricular areas

The program is appropriate for students who have had poor or sporadic school attendance and low academic performance in their previous schooling. The program goals are to

- increase attendance; improve skills, and
- enhance self-esteem and educational attitudes in students who have dropped out of high school and have no other chance for completing an education.

Characteristics of the program include a supportive non-traditional school structure, a small student-teacher ratio, individualized learning, student contracting, intensive counseling, vocational skill training, and a diagnostic prescriptive teaching process. Follow-up studies have shown that the model has enabled students to earn the high school diploma or GED certificate, improve work skills and social adjustment. Improvements have been shown to be maintained long after program completion.

Exemplary Center for Reading Instruction (ECRI)

Grade Level(s): 1-10

Resources Needed: 3-5 day preparatory seminar; additional 1-10 day seminars

Area(s) Addressed: Reading and writing in content instruction

The program teaches teachers to use effective teaching strategies that prevent failure. Strategies include

- eliciting accurate and rapid responses during instruction,
- establishing high levels of mastery,
- maintaining on-task behavior,
- varying schedules and classes, and
- supervising students' hands-on activities and practice.

Student attention is sustained with the momentum of teacher directives during instruction and reinforcement offered during practice time. Teachers teach word recognition, literal, interpretative, critical and creative comprehension, study skills; literature, and composition as they use basal readers, literature series, novels, and content books. Students demonstrate mastery through their participation in small-group discussions, writing, and locating, organizing, and evaluating information. Students demonstrate competency in their ability to reason, solve problems, apply knowledge, read, write, and communicate. ECRI students stay in school longer because of their success in school and their higher academic scores.

Focus Dissemination Project

Grade Level(s): 9-12

Resources Needed: Counselor, teachers, facilities of a "school-within-a-school"

Area(s) Addressed: English, social studies and math, and group counseling

The Focus Dissemination Project provides an alternative education plan for students who have been identified as disaffected, showing a lack of motivation, lack of confidence, and low self-esteem. The program effects responsible institutional change and positive student attitude and performance by helping students learn responsibility to self, school, and society. Through a group counseling experience, the peer group is guided to deal with the problems causing disaffection. Focus is a school within a school for secondary students who are not achieving or functioning in a way beneficial to themselves and/or those around them. The program seeks to reduce student disaffection with school and learning, to improve each student's ability to relate effectively with peers and adults, and to give each student a reason to be optimistic about the future. The Focus Dissemination Project is a highly structured program offering courses in English, social studies, and math. Instruction in the Focus Dissemination Project classes is based on ability and need. Students take classes such as science, physical education, health, and electives in the regular school program. All students are involved in a group counseling experience called Family. Each Family consists of 8 to 10 students and one teacher who meet together one hour daily throughout the year. Family attempts to help the student develop feelings of caring, self-worth, and concern for others. It includes examination of one's own behavior in relation to the reactions of others within an atmosphere of positive support from the group. Program effectiveness is measured in grade equivalency gains on standard achievement tests, reductions in negative behaviors and improved attendance and grades.

Graduation, Reality, and Dual-Role Skills (GRADS)

Grade Level(s): 7-12

Resources Needed: A certified family and consumer science teacher with the resource guide, cost $78, and two-day inservice. Equipment includes student tables and chairs, a teacher desk, file cabinets, lockable storage, audiovisual equipment, and a telephone for private conversation available at all times.

Area(s) Addressed: Communication and skills necessary for effective problem solving in the teen family, stress management, family wellness and all practical problems of the adolescent parent at home, school, and work

This is a program to keep pregnant and parenting teens in school, with additional goals of encouraging good health care practices and helping young parents set occupational goals. The four content areas include positive self, pregnancy, parenting, and economic independence. The advisory committee and home/community outreach components seek to build strong relationships with students through home visits and/or contacts with family. Evidence of effectiveness include findings that teens enrolled in the program are more likely to remain in school until graduation, during pregnancy, and after childbirth. They have also significantly increased their knowledge of positive parenting practices as measured by pre- and post-test instruments. Pregnant mothers are also more likely to deliver healthy babies than teens not enrolled in the program.

Help One Student To Succeed (HOSTS)

Grade Level(s): K-12

Resources Needed: HOSTS database and software programs

Area(s) Addressed: Reading, writing, thinking, and study skills

This is a structured mentoring program in language arts designed to reinforce the classroom teacher and reduce the workload, while improving student outcomes and containing costs. It works with existing compensatory staff improving their efficiency and productivity. In cooperation with the classroom instructor the compensatory teacher prepares mentor-friendly student folders, containing student learning assignments and activities, for each student and mentor. HOSTS is a continuous progress model and operates successfully with any assessments, curriculua, objectives, and philosophies. HOSTS database and software programs align the schools and district's curriculum with any state or locally developed objectives, thus saving up to 80% of the teacher's time in planning.

Increase Maximal Performance by Activating Critical Thinking (IMPACT)

Grade Level(s): K-College

Resources Needed: IMPACT seminars, model lessons, and materials

Area(s) Addressed: Critical thinking, content area instruction

This program focuses on staff training to infuse the direct teaching of critical thinking into existing core subjects and across curricula areas. Program adopters are empowered to initiate classroom reforms in learning and instruction crucial to meeting the National Goals for Education. IMPACT's instructional approach has three essential components:

- a framework of 22 critical thinking skills,
- a model lesson format, and
- ten teaching behaviors that activate student use of critical thinking.

The IMPACT training and materials model includes proven methods for integrating subject-matter content with such thinking skills as comparing and contrasting, classifying, ordering, patterning, identifying relevant and irrelevant information, cause and effect relationships, and predicting and logical reasoning.

Institute for Creative Education (ICE)

Grade Level(s): K-12

Resources Needed: Two-day training workshop; curriculum materials

Area(s) Addressed: All curricular areas

The program has a concentration on developing divergent thinking skills. The program gives students, in a non-threatening atmosphere, the foundation for sound decision making and problem solving. Its main goal is to develop students' abilities to respond to problems or tasks more fluently, flexibly, originally, and elaborately. It is directly aligned with Goal 3 of the National Goals for Education, students will be able to reason more effectively, solve problems, apply knowledge, and write and communicate orally.

Junior Great Books Curriculum, The (JGBC)

Grade Level(s): K-1 and 7-12

Resources Needed: Basic Leader Training Course; student books; student activity books; follow-up consultations; awareness presentations

Area(s) Addressed: Reading and writing

Junior Great Books is a literature-based program of interpretive reading, writing, and discussion, which partially replaces or supplements conventional instruction in literature and comprehension and also provides benefits in critical thinking. It is intended for use in up to five class instructional periods per week for twelve or twenty-four weeks. Students are involved in intensive collaborative guided practice in interpreting outstanding stories drawn from many cultures. It fosters active reading, exchange of ideas, and rigorous individual thinking. Students read, discuss, and write about interpretive issues through a sequence of activities. The program promotes students' ability to reason, solve problems, apply knowledge, write, and communicate effectively.

Leflore County (Mississippi) Follow Through Project

Grade Level(s): K-3

Resources Needed: None

Area(s) Addressed: Reading, writing, mathematics, science, social studies, music, physical education, health, and safety

Children assume responsibility for their own learning by planning self-initiated activities, carrying out their plans, presenting what they have learned, and sharing their experiences with others. Children become independent decision-makers and problem-solvers. Teachers structure specific learning experiences based on children's needs and their ability to learn a concept or skill. Adults help children apply acquired skills within student-initiated projects.

A parent component takes the program home to parents and brings parents to the school. Parents participate in classroom activities and workshops. They contribute their knowledge, skills, and resources to the school's educational goals.

Project Intercept

Grade Level(s): 4-12

Resources Needed: Funds for one-week training followed by week-long visits throughout year

Area(s) Addressed: Entire school's teaching is restructured

This is a positive program for intervention and remediation of students at-risk of suspension, truancy, dropout, academic failure, and behavior problems. It is approved for students who are considered high risk due to chronic academic failure, disruptive behavior, truancy, suspension and dropout. The basic premise of Project Intercept training is to restructure a school's teaching philosophies and to provide more effective techniques to deal with the at-risk student. The Intercept program is highly individualized and goals for each individual school are developed in concert with the participants of the project. Teachers, counselors and administrators are trained as a team to approach all problems that affect at-risk students. The program is two parts: one-half theoretical, one-half process. The program consists of a one-week training by Intercept master trainers followed by week-long visits throughout the year for on-line critiquing and demonstration teaching. One of the goals is to develop turn-key trainers to maintain the program at the original training site with the possible expansion of the program to other schools in the system.

SAGE

Grade Level(s): Grades 1-5 academically/intellectually gifted and talented students

Resources Needed: SAGE Tri-Fold Curriculum, resource materials

Area(s) Addressed: Higher order and critical thinking skills

The objectives of the SAGE program are to develop higher order and critical thinking skills and to improve academic achievement by providing a differentiated, specialized curriculum for academically/intellectually gifted students. The regular school curriculum is extended based on a three-fold model incorporating thinking skill development, mini-study units, and independent study. Activities presenting the thinking skills development portion of the curriculum stimulate and challenge students to think and to perform at higher levels of thinking and presenting specific instruction in areas of information gathering, organizing, and using resource materials. Mini-study units, extensions of the basic curriculum, are interdisciplinary in nature and incorporate thinking skill activities in broad topic areas. The third segment of the SAGE core curriculum, independent study, allows students to extend and to enrich their knowledge of interest/content areas. A mentorship program, utilizing experts in the areas of student interest, is an outgrowth of independent study.

SAGE develops new themes annually. There is a SAGE Network of adopters who share thematic units as well as curriculum adaptations made for the regular classroom. Thinking skill booklets for the regular classroom teacher are available through the program's supplemental materials component.

The SAGE materials are adaptable to a variety of program designs. Guidelines are provided for schools in the initial program development stages. Schools that already have established a gifted/talented program may use the materials to enhance their current program. The SAGE Tri-Fold Curriculum can be easily implemented in one of three instruction models or a combination of the field-tested models: separate classroom, resource room, consultant teacher. Classroom teachers can be trained to implement SAGE for the academically/intellectually-gifted students in the regular classroom.

Science-Technology-Society: Preparing For Tomorrow's World (PFTW)

Grade Level(s): 7-12

Resources Needed: Instructional model and modules

Area(s) Addressed: Problem solving, critical thinking

The goals of the Science-Technology-Society: Preparing for Tomorrow's World (PFTW) modules are to develop logical, higher level thinking and social reasoning skills in the context of science, technology, and society. Serving as the guiding framework for the materials, activities, and teaching strategies, a sound instructional model is utilized to develop the skills necessary for students to move to higher levels of cognitive reasoning and citizenship.

PFTW is comprised of a set of four independent curriculum modules. Topics covered include Coastal Decisions, Space Encounters, Beacon City: An Urban Land-Use Simulation, and Decisions, a 12 topic, cross-discipline, "sampler" module.

PFTW engages students in activities such as scenario writing, graphing, problem solving, conducting surveys, and futures forecasting, to add another dimension to existing curricula. Discussion and debate among students encourage critical self-evaluation and promote more complex reasoning ability and increased perspective-taking abilities. Depending on the modules selected and the course structure in which they are used, activities may be used in continuous sequence, interspersed throughout existing courses, or, as in the senior high grades, taught as discrete units of study.

SCORE for College (SCORE)

Grade Level(s): 7-12

Resources Needed: Inservice expenses, workbooks for students, supplementary teaching materials, existing facilities using current curriculum and equipment, a director and staff

Area(s) Addressed: College core curriculum leading to university eligibility upon graduation

SCORE is a comprehensive co-curricular support program that brings together administrators, counselors, teachers, parents, and students to increase student performance and eligibility. SCORE provides a comprehensive, holistic approach while training staff to build a program incorporating placement, study skills, academic support, multiple modality teaching techniques, counseling and mentoring. There are five major components:

(1) Tutoring and Study Skills,
(2) Guidance,
(3) Parents,
(4) Motivational Activities, and
(5) Summer Acceleration.

Program evaluation results show that high-risk students who participate in SCORE are successfully enrolled into a common core college preparatory curriculum; enroll in colleges and universities at higher rates than their peers; test out of limited English proficient programs at rates higher than their peers; decrease remedial course offerings and increase college preparatory curriculum; and increase graduation rates.

Success Enrichment, Project (PSE)

Grade Level(s): K-12

Resources Needed: Language arts enrichment activities

Area(s) Addressed: Language arts

This is a program to enrich the language arts of intellectually, academically, and creatively gifted students. Special enrichment activities are provided for students with exceptional high abilities in the areas of language arts. Although conducted in groups of 15 students at first, it was discovered that this program could be accomplished within a regular classroom setting with provisions for flexibility in student outcomes and expectations for varying student ability levels. Project Success Enrichment presents educators with a complete, comprehensive curriculum that includes sequential activities -moving students from simple to complex concepts, and instructs teachers in a way that they can make immediate use of the program. Because it is very flexible, it can be used with students of all learning styles, abilities, and cultural backgrounds.

Lessons are presented in hierarchical sequence from skill awareness through skill acquisition, skill mastery, skill application, to skill transfer. At the skill application level, elaboration, originality, divergent thinking, and problem solving are emphasized. Cooperative learning approaches, such as hands-on activities, shared decision-making, active participation, and questioning techniques are demonstrated and experienced throughout the program of activities. Self-management and social skills are also stressed, along with a process-oriented approach to the content.

The language arts curriculum includes (1) Imagery, (2) Vocabulary, (3) Sentences, (4) Literature, and (5) Format. Upon mastery of these topics, learners study in-depth various types of poetry and short story writing and transfer their literary knowledge to a variety of integrated projects. Both oral and written communication skills are stressed through various teaching strategies. This developmentally sequential language curriculum is embodied in six packets (four to six years of instruction): introductory, short story, poetry, drafting and editing, literary analysis (classics, Newbery Award winner), and projects and evaluation.

Success Enrichment/Art, Project (PSE/Art)

Grade Level(s): 4-8

Resources Needed: Training in the use of PSE/Art materials, procedures and use of the program's curriculum, and training manuals

Area(s) Addressed: Content integration, thinking skills, problem solving, visual arts

This enrichment program in visual arts is designed to enrich the education of intellectually and creatively gifted students as well as students in the regular classroom, special education, and multicultural, education. Students are grouped for cooperative learning experiences organized into roughly three-hour blocks per week over a seven-month period. The curriculum for each program is developmentally-sequential, based on learning theory, and integrates content (academic) and thinking skills by using a specific process approach which has proven to be very effective. The program emphasizes problem solving, decision-making, higher level thinking, and creativity, as well as self-management and social skills.

The art curriculum includes enrichment activities that focus on drawing, painting, and design, clay work and sculpture, and thinking skills appropriate for children of all ability levels. The curriculum activities are sequential, use a variety of media, and emphasize: (1) proportion, (2) contour, (3) detail, (4) shape, (5) form, (6) pattern, (7) texture, and (8) use of color. After completing skill awareness and skill acquisition activities, students embark on individual projects.

PSE/Art asks students to brainstorm art principles, elements, and techniques, making connections as to their use in drawing, painting, and clay work. The students have an opportunity to work with a variety of media, topics, concepts, and projects relating art to academics. Students are encouraged to develop creativity, artistic expression, and perceptual skills in an effort to acquire an understanding of how all knowledge is interconnected. The integration of the two programs has become a powerful way to teach, particularly with those students who employ certain learning styles that need experiential, hands-on learning to acquire knowledge and concepts.

PSE/Art assists students in learning to use their minds and furthers their achievements in the area of visual art so that they may be prepared for responsible citizenship, further learning, and productive employment in our modern economy.

Systems Approach to Individualized Instruction (SAII)

Grade Level(s): 1-6

Resources Needed: Two handbooks; program materials; one-to-three-day pre-adoption workshop

Area(s) Addressed: Reading and math

SAII includes criterion-referenced tests and learning modules for 155 reading skills (e.g. readiness, phonics, syllabification, and structural analysis) plus 200 criterion-referenced tests and learning modules for the computational skills of mathematics. The program has developed sets of teacher questions and student worksheets to accompany over 400 paperback books. Each set of questions has been divided into lessons with each lesson having questions on five levels of comprehension: recall, interpretation, extrapolation, analysis, and evaluation.

Title I H.O.T.S.: Higher Order Thinking Skills Project

Grade Level(s): 4-6

Resources Needed: A computer lab, using Apple IIe, IIgs, or MacIntosh LC computers; an experienced teacher who is trained for that school

Area(s) Addressed: Reading and mathematics

The program replaces traditional drill and practice activities and content instruction in compensatory programs with thinking activities designed to generate the gains in basic skills expected from Title I programs. Students are provided with conceptual skills to learn the more sophisticated content of the upper elementary grade levels the first time it is taught. The program is conducted in a lab with a detailed curriculum and a teacher trained in Socratic dialogue techniques. Computers are used to enhance motivation and improve students' ability to self-monitor their own comprehension.

Students increase their abilities to articulate ideas and engage in sophisticated conversations, thus, enhancing their language use and ability to learn content, with both gains in reading and math. Students are pulled out of their regular classrooms for 35 minutes a day, four days a week, for two years.

Programs Supported by Positive Anecdotal Evidence and Research-Based Findings

Many of the promising programs/practices and strategies in use in the schools today are not based on hard empirical data; however, they were implemented by practitioners who have had successful student academic results as evidenced by anecdotal evidence. The programs/practices and strategies listed below came about through trial and error or the application of research-based findings.

A+ Schools

Grade: Level(s): K-12

Resources Needed: Training and resources in integrated learning, interdisciplinary teaching, and Gardner's theory of multiple intelligences

Area(s) Addressed: All curricular area(s)

The A+ Schools Program creates schools where students are taught in ways that enable them to learn and make the most of their talents, in an environment, which encourages learning. The program combines daily arts instruction with interdisciplinary teaching to improve the classroom learning environment and academic performance.

Harvard psychologist Howard Gardner's theory of multiple intelligence *(Frames of Mind,* 1983) has provided the intellectual and scientific foundation for the A+ Schools Program. This theory and other research shows that children learn in different ways through various learning styles and processes. Gardner observes different ways through various learning styles and processes. Gardner observes that humans have not just one intelligence but seven: linguistic, logical-mathematical, musical, visual-spatial, bodily kinesthetic, interpersonal, and intrapersonal. He also observes that traditional methods of education testing focus only on the linguistic and logical-mathematical, missing the other areas completely.

The faculties of participating schools attend a weeklong summer institute where they are trained in integrated learning, interdisciplinary teaching, and Gardner's theory of multiple intelligences.

Accelerated Reader

Grade Level(s): K-12

Resources Needed: Books on all levels, computer disks, an MS-DOS, Macintosh, or Apple IIe computer

Area(s) Addressed: Reading

Accelerated Reader is a technology-based literacy management program that motivates students ages 6-18 to read more and choose better books, while freeing teachers from reading and grading book reports and keeping records.

To use the Accelerated Reader, students read a book at their own pace from the program's acclaimed book list. There are 211 disks containing titles from great literature, acclaimed nonfiction books, children's classics, or award-winning contemporary books. After reading, students then test their knowledge and comprehension of the book by answering multiple-choice questions on the computer.

The computer handles all scoring and record keeping automatically, achieving closure by immediately presenting the student with a score. Accelerated Reader allows teachers to generate a wide variety of class and individual performance reports and helps them to assess and motivate student reading.

As a result of the students' motivation to read, they aspire to be independent readers. Students quickly begin reading books on their own with increased understanding. An impressive body of research documents show faster growth in reading achievement for participating students.

Accelerated Schools

Grade Level(s): K-12

Resources Needed: Various instructional styles, and strategies, and technology

Area(s) Addressed: All curricular areas

The North Carolina Partnership for Accelerated Schools was created to contribute to North Carolina's efforts to reform its educational system. Representatives from three educational agencies have worked collaboratively to implement the Accelerated School Project: 1) Public Schools of North Carolina, 2) Local Education Agencies, and 3) Teacher Educators (NC State University and East Carolina University). This three-way partnership, the first of its kind in the nation, provides resources, support, and a philosophical framework for changing school cultures. Goals of this project are to help schools

- use democratic decision-making processes by including parents, administrators, and faculty to empower the total school community to become responsible for the education of all students;
- provide high quality powerful learning experiences for all students while communicating high educational standards; and
- support teachers as agents of change.

After School Programs

Grade Level(s): Grades 3-12

Resources Needed: Funding for tutoring personnel, snacks for the students, and additional instructional materials and supplies (if needed)

Area(s) Addressed: Reading, Writing and Math (grades 3-8), End of Course subject areas (grades 9-12)

After School Programs can be planned in a variety of formats, but it is essential that administrators, teachers, and parents plan together for the most effective results. Plans should include such decisions as: grade levels and subject area to be addressed, time and place for the program, schedule of activities, instructional personnel, and materials and supplies needed.

Grade Levels and subject area to be addressed can include any combination of students in proficiency levels 1 and 2. Specific skills should be built into the program. Time allowed for the instructional program should be no more than an hour for elementary, and 90 minutes for middle and secondary students. Programs can be short term, such as a month before testing, or year-long programs. Some programs may need to locate outside the school. Near-by churches, museums, and community centers are possible sites.

Schedule of activities is determined by the age of the students. Elementary students usually need an activity period (songs, rhythm games, etc.) before beginning their instructional time. Middle graders also need an activity period or just time to socialize. High school students also enjoy a few minutes to socialize. If snacks are served, they should be healthy no fat or sugar-laden foods such as soft drinks or chips. Some good choices include granola, trail mix, small sandwiches, popcorn, fruit, juice or milk. Plenty of water should be available. The school may elect to have students bring their own snacks, which may work with middle and high schools.
Instructional personnel could include certified teachers, teacher assistants, volunteers, peer tutors (middle-high school students), or service organizations. A low teacher/student ratio, one teacher or tutor to five or six children for a 30 minute period, is more effective than one teacher or tutor for 15-20 children for an hour. Time should be spent in direct teacher or tutor interaction with the students. There should be periodic assessments of students to determine if the program's goals are being met. If not, the plan needs to be revised.

Materials and supplies can be those already available or ordered for the use of the program. For example, one school with grades 3-5 elected to purchase phonics materials for use with its after school program to supplement their regular literature-based reading program. Secondary students can use this time for lab work, simulations, active learning or peer tutoring.

Schools must design after school programs that meet their identified needs. The important thing to remember is to involve all the stakeholders and assess students regularly to determine if the program is working.

Alternative Education Programs

Grade Level(s): K- 12

Resources Needed: None

Area(s) Addressed: All curricular areas

Alternative Education Programs are small. Those who operate these programs design both program and organization. Character, theme, or emphasis may be developed from the strengths and interests of the teachers who established them. The teachers should elect to be a part of the program, with subsequent teachers being selected with the input of present staff. Students and families select the program. A teacher-director administers the programs. Small size denies them much auxiliary or specialized staff (librarians, counselors, etc.). Alternative Education Programs are usually housed as mini-schools in buildings that were dominated by larger programs. The superintendent sustains the autonomy and protects the integrity of the mini-school. All programs are relatively free from district interference, and the administration also buffers them from demands of the central office. The continuity in leadership is important. Considerable attention goes into cultivating a strong sense of connection among students and between students and teachers. The curriculum must be compelling, challenging and inviting. Staff roles are broadened to include new responsibilities. Teachers and school administrators must continue to collaborate to improve the image of alternative education.

Building Teacher Capacity and Student Success Through Lesson Planning

Grade Level(s): All

Resources Needed: Knowledgeable instructional leader

Area(s) Addressed: All curricular areas

The program frequently teachers have the desire to improve their ability to meet the instructional needs of students, but the "how to" is lacking. Even if teachers have attended training to extend their knowledge of effective instructional strategies, they may feel uncomfortable attempting to transfer that learning into classroom practice.

An instructional leader can view this situation as an opportunity to put several processes in place that will result in improved student learning. First, an analysis of test data will determine which goals and objectives in the *Standard Course of Study* are areas of strength or areas of weakness for a particular group of students. Next, benchmark testing is a valuable tool for identifying which objectives have been mastered and which need greater emphasis at a given point in the school year. The use of pacing guides should be paired with this assessment to ensure that all students are being taught all aspects of the curriculum. Finally, because teachers of a particular subject or grade levels should be at about the same point in the pacing guide, a knowledgeable instructional leader can write lesson plans to be used by all. These plans represent a culmination of best practices and are rich with activities designed for the non-traditional learner. Lessons are designed with students actively involved as workers and learners Lessons that begin by giving a research base through means of "teacher background information" are most beneficial. Plans should clearly explain the role of the teacher and the role of the learner throughout the design.

The instructional leader provides support and assistance through classroom visitations as lessons are taught. Teachers discuss and hone lessons through weekly meetings.

As teachers develop an increased comfort level and enhance their expertise, they engage in co-operative planning with the instructional leader having a lesser role.

Classroom Workshop

Grade Level(s): 3-6

Resources Needed: Books, teacher-made mini-lessons, self-evaluation forms, and records

Area(s) Addressed: Literacy education

The reading-writing workshop is one of the most important new strategies in literacy education. Students choose their own topics for writing, books for reading, and projects for investigating. A workshop is a long, regularly scheduled, recurrent chunk of time during which the main activity is to work on a subject. A defining element in a true workshop is choice. However, the workshop must have structure for group and individual work. Deep student immersion into the subject is the key to learning. Workshops meet at least once a week or daily, if time permits. All workshop time must be used on some aspect of working. When the students complete a product, a piece, or a phase, they aren't finished for the day: instead they must get a new assignment based on their running list of tasks and topics, or seek a conference with the teacher. The students collaborate freely with classmates, keep their own records, and self-evaluate.

Teachers model their own reading and writing processes, conferring with students one-to-one, and offer well-timed, compact mini-lessons as students work.

Classwide Peer Tutoring

Grade Level(s): K-12

Resources Needed: Training for teachers and for students who are tutors

Area(s) Addressed: All curricular areas

Peer tutoring is the provision of instruction by a fellow student. Classwide peer tutoring is systematic, peer-mediated, instructional intervention designed to improve the basic skill performance of students who are recognized as low-achieving, disadvantaged, or mildly disabled. Data from a number of investigations have shown the powerful effects of classwide peer tutoring on the reading performance of students classified as mildly disabled; both the performance in math, spelling and vocabulary of students receiving Chapter 1 services; and weekly spelling tests of low-achieving, minority students. One significant study showed classwide peer tutoring for secondary students in social studies to be equally effective for students with and without disabilities, with test scores increasing by approximately 20 points. Additional evidence suggests that classwide peer tutoring is a socially acceptable classroom intervention for both teachers and students.

Evidence seems to indicate that students will make greater gains using classwide peer tutoring over traditional instruction. It increases students' opportunities to improve academic skills, expands instructional resources and strategies in the classroom, and involves all students in a valued activity.

Comer School Development Program

Grade Level(s): K-12

Resources Needed: Parents and school support personnel

Area(s) Addressed: Intended to improve the educational experience of poor minority youth

Schools must review problems in an open discussion in a no-fault atmosphere. Each school must develop collaborative working relationships among principals, parents, teachers, community leaders, superintendents, and health-care workers. All decisions must be reached by consensus rather than by decree. Each Comer school is governed by the following three teams:

The School Planning and Management Team-This building-level governing and management body is headed by the principal and comprises teachers, administrators, parents, support staff, and a child development specialist. As a team they are responsible for identifying targets for social and academic improvement, establishing policy guidelines, developing systematic school plans, responding to problems, and monitoring program activities.

The Mental Health Team-This team is headed by the principal and includes teachers, administrators, psychologists, social workers, and nurses. Together they analyze social and behavioral patterns within the school and determine how to solve recurring problems, applying child development principles in their decision making.

The Parents' Group-The goal of this group is to involve parents in all levels of school activity, from volunteering in the classroom to school governance.

Cooperative Learning

Grade Level(s): K-12

Resources Needed: Open-ended or extended response exercises, extended tasks, portfolios

Area(s) Addressed: All curricular areas

Cooperative learning is a teaching strategy in which small teams, each with students of different levels of ability, use a variety of learning activities to improve students' understanding of a subject. Each student team is responsible for learning what is taught and also for helping teammates learn, creating an atmosphere of achievement. Cooperative learning is a strategy in which students work in groups to achieve shared goals.

There are five basic elements of cooperative learning (Johnson and Johnson, 1987):
positive interdependence, face to face promotive interaction, individual accountability, interpersonal and small group skills, and group processing.

Documented results of cooperative learning show that students involved in this approach to learning, experience improved academic achievement, improved behavior and attendance, increased self-confidence and motivation, and increased liking of school and classmates. Improved relations among different ethnic groups can be expected. This teaching strategy is very effective for working with students who have experienced minimum success in school.

Cooperative Teaching

Grade Level(s): K-12

Resources Needed: Training and resources in cooperative teaching

Area(s) Addressed: All curricular areas

Cooperative teaching, or co-teaching, is a model that can be a benefit to both teachers and students. Cooperative teaching is two or more professionals delivering substantive instruction to a diverse, or blended, group of students in a single physical space. (Cook & Friend, 1996). Studies have shown that when cooperative teaching has been appropriately implemented, there have been significant increases in various areas of academic performance and attendance and significant reductions in discipline referrals. Along with these outcomes, other goals for cooperative teaching include increasing instructional opportunities for teachers and students, increasing time on task for students to learn, reducing the stigma of students with exceptionalities, and increasing students understanding for each other. Though this model has been and continues to be implemented for special education students' participation in general education classrooms, cooperative teaching can be applied in any instructional setting that has students with diverse needs.

Successful implementation of the cooperative teaching model is characterized by several defining traits. First, the cooperating teachers offer complementary strengths. Often one teacher has strengths in curriculum and classroom management while the other is more proficient in individualizing instruction and addressing students' special needs. These professionals are not identical; rather, they bring different qualities that combine to produce a rich learning environment. Second, the teachers are compatible in terms of teaching philosophy and discipline. This promotes consistency in instruction and management and gives students reliability in the teaching process so they can work with either teacher. It also enables a positive working relationship. Third, the model involves equality and partnership between the teachers. This means collaboration between two appropriately trained and licensed professionals, not a teacher-to-assistant relationship. Communication and planning is jointly shared, not the responsibility of one participant. Fourth, there is alternation in instruction, as well as all other aspects of service delivery. This gives variety to the student and gives opportunities for each teacher to increase her/his own professional competence. Fifth, successful co-teaching utilizes flexibility, the latitude afforded by this model to increase instructional options for the diverse learning needs of students. This certainly includes modifications for students with identified disabilities but also can encompass more broad learning styles (e.g. visual, auditory, kinesthetic, etc.) that are exhibited by students with no disabilities. All of these characteristics combine to produce increased continuity and emphasis in instruction, with greater opportunity for student growth and learning.

The cooperative teaching model can be applied to nearly any curricula that are chosen. Keys to its successful implementation are careful planning and consideration when choosing cooperative teams and offering opportunities for continued collaboration and planning between team members.

Creative Writing Workshops

Grade Level(s): K-12

Resources Needed: Professional writers or English instructors

Area(s) Addressed: Writing skills; builds students' self-esteem

Students work with professional writers to explore issues such as peer pressure, drug and alcohol awareness, conflict resolution, and gang involvement through a summer creative writing project. Through poetry and fiction workshops, reading circles, field trips, and writing exercises, students learn to talk out their thoughts and express them on paper. The program not only strengthens students' reading and writing skills, but helps the public housing community create an atmosphere that celebrated their academic and intellectual achievement. Students are highly motivated by opportunities to publish and perform their work. Students and teachers team up with a local bookstore to host a public poetry reading and coordinate a poetry festival at the school. Writing instructors at the schools help students edit and publish an anthology of their work to share with friends and family members.

Developmentally Appropriate Practices

Grade Level(s): K-6

Resources Needed: None
Area(s) Addressed: Human Development

Developmentally appropriate practices, commonly referred to as DAP, are practices that are age and individually appropriate for each child in a program. Age appropriateness is a dimension that comes from research in human development that says there are universal, predictable sequences of growth change that occur in children during the first ten years of life. Individual appropriateness looks at each child as an individual with an individual pattern and timing of growth, individual personality and behavior patterns, learning style, and family background.

Planning a developmentally appropriate program means that teachers need to assess each child individually, where he or she is in the areas of physical, social, emotional and cognitive development, in addition to his/her individual talents and interests. Teachers also need to think about children's basic needs for play and rest. DAP requires teachers to plan an inclusive program that honors cultural differences and children with special needs. A support program for parents and families completes the developmentally appropriate program.

Programs that are developmentally appropriate provide opportunities for teachers and their students to work continuously to determine the best practice for a group of children at any given time. Developmentally appropriate practices are not the same for all children or groups of children.

A list of developmental characteristics is available that covers physical, social, emotional, and cognitive areas of development and should be used in conjunction with teacher and parent observations of each child.

Direct Instruction

Grade Level(s): K-6

Resources Needed: Extensive training, coaches, curricular materials

Area(s) Addressed: All curricular areas, however, reading, language arts, and mathematics can be implemented separately

Direct Instruction evolved from a theory of instruction developed by Siegfried Engelmann of the University of Oregon. Englemann's early works focused on beginning reading, language, and math and were published by Science Research Associates in 1968 under the trade name DISTAR (Direct Instruction System for Teaching and Remediation). Englemann's theory of instruction is that learning can be greatly accelerated if instructional presentations are clear, rule out likely misinterpretations, and facilitate generalizations. Over the past three decades, the original curricula have been revised and new ones developed. These curricula have been incorporated into the comprehensive school reform model known as the Direct Instruction Model. The primary goal of this model is to improve academic performance so that by fifth grade, students are at least a year and a half beyond grade level.

Through the Direct Instruction Model students are taught in small groups through highly interactive lessons. The lessons are based on carefully scripted and tightly sequenced instructional strategies. The students are asked to make frequent oral responses while the teacher monitors, and corrects errors immediately. Students are placed at appropriate instructional levels based on performance. Those who learn rapidly are not held back and those who need additional assistance receive it. Pull out programs are not implemented.

Teachers receive extensive training in instructional and diagnostic strategies and receive in-class coaching.

Direct/Individualized Reading Instruction

Grade Level(s): 1-12

Resources Needed: Intensive staff development in the chosen program and systematic follow-up consultation.

Area(s) Addressed: Literacy

Students who have not experienced success in a traditional reading instruction model are included in a more structured, systematic program designed to assess and remediate before significant delays are present. These direct instruction models usually take one of two forms. The first design is a whole school approach and is appropriate for schools that have a large percentage of low-achieving students. The entire faculty is trained and every teacher teaches reading to a small group during a designated school-wide reading block. *Failure Free* and *Success for All* are examples of such programs that have been used with success in North Carolina Public Schools.

The second design is used with students who have been exposed to several literacy approaches and are still functioning as nonreaders or as emerging readers. Sometimes this design is provided through one-on-one instruction such as *Reading Recovery* or *Reading Rescue.* With upper elementary age students and above, instruction is offered in a pull out, small group setting. Special emphasis is placed on phonemic awareness, often in a discreet trial format.

Grade Group and Department Instructional Meetings

Grade Level(s): All

Resources Needed: Common planning time; an administrator or instructional specialist knowledgeable of best practices in content areas

Area(s) Addressed: All curricular areas

Rarely do educators working under the same roof come together to discuss instruction. For excellence to be pervasive, regular meetings where teachers share effective strategies, learn from research, and learn from others must become routine.

Ask a group of teachers, such as the math department or all teachers of students in grades 6-8, to select a mutually-agreed-upon time to meet weekly. Explain that the emphasis will be on examining research-based best practices in their field and sharing strategies that they have found effective. Initially, an instructional leader such as an administrator or instructional specialist will plan and carry out the agenda. One session might focus on reading and discussing an article from a professional journal in which successful strategies are explored. During the next session, the leader of the group might demonstrate and model an effective instructional strategy. Teachers should be encouraged to implement new learning in their classes. The leader's role at this point is establishing the expectation, then monitoring and supporting.

It is important that teachers begin to assume ownership for this form of professional collegiality. This can be accomplished through a gradual transition from administrator-directed meetings to teacher-leader-directed meetings. As the administrator is monitoring instruction and observes desirable practices in action, s/he should compliment that teacher and ask him/her to explain/demonstrate/share that strategy at the next meeting.

As teacher leaders emerge, ask them to plan future meetings. These sessions will then begin to focus on instructional issues that teachers feel are especially pertinent to their teaching and will likely highlight issues for which they had not had a support structure in place previously. Discussions might center around ideas for teaching an especially difficult objective, or three different ways to introduce the same objective. Having master teachers share strategies that engage students in active learning is a powerful means of building capacity among teachers and success among students.

Group Investigations

Grade Level(s): 3-12

Resources Needed: Units of study

Area(s) Addressed: All curricular areas

This is a group inquiry model developed in different fields, including the Biological Science Curriculum Study, the Social Science Curriculum Project, and the Group Investigation Model (Joyce, 1986). In the common structure of these models, a learning cycle begins when the class encounters or identifies a problem for study. As a first step, the whole class discusses the topic, shares prior knowledge, generates hypotheses, poses questions, sets goals, and makes a plan for studying the topic. Roles and tasks are parceled out to different groups of students, based upon their curiosities and skills. The inquiry proceeds in the small groups, with the teacher serving as facilitator and resource along the way. When the investigations are complete, the teams reconvene to share and discuss their findings.

High Schools That Work (HSTW)

Grade Level(s): 9-12

Resources Needed: None

Area(s) Addressed: All curricular areas

High Schools That Work (HSTW) is an initiative of the Southern Regional Education Board-State Vocational Educational Consortium, organized in 1987 to improve the academic, technical, and intellectual achievement of career-bound high school students.

HSTW is a whole-school, research and assessment-based reform effort that offers a framework of goals and key practices for raising student achievement. It provides intensive technical assistance focused on staff development and a nationally recognized yardstick for measuring program effectiveness. HSTW promotes a changed school environment as a context for implementing the key practices. HSTW sets high expectations, identifies a recommended curriculum to accomplish these goals, and sets student performance goals benchmarked to the National Assessment of Educational Progress (NAEP).

School Revitalization
A key to upgrading the achievement of career-bound students is a comprehensive "whole school" revitalization to

- revise the academic and vocational curriculum;
- eliminate the general education track;
- require all students to pursue an upgraded academic core and either a vocational or an academic major;
- arrange for academic and vocational teachers to plan and work together;
- make teachers aware of the potential of all students;
- counsel students and involve their parents in planning and student in completing a challenging four-year program of academic and vocational study; and
- provide students with the extra help needed to meet higher standards.

Integrated Curriculum

Grade Level(s): K-12

Resources Needed: Integrated topics in content areas

Area(s) Addressed: All curricular areas

The integrated curriculum the arts and humanities, reading and writing into broader disciplines while maintaining the integrity of the basic skills and concepts of each content area.

This approach to curriculum design has been proven to be a very effective method for teaching and learning. Students learn best when the subjects taught are connected and related to common goals. Schools can expect students to think at higher levels, improve their attendance and self-esteem, and perform at higher levels on tests and classroom assignments.

Several overlying concepts that embrace curriculum integration are brain-based learning, whole language, reading or writing workshop, interdisciplinary teaching.

Johnston County Schools' Parent Agreement

Grade Level(s): K-12

Resources Needed: Contracts

Area(s) Addressed: All curricular areas

The Johnston County Schools' Parent Agreement is an integral part of the Johnston County Student Accountability Policy. Parents must come to school for a conference and sign the agreement by the end of the first school month or face consequences for not signing the agreement. Social workers and other support personnel are utilized to seek out parents who have not signed agreements.

The agreement requires parents to

- support their children's school experience;
- communicate frequently with teachers, and
- monitor the progress of their children.

Students, teachers, and principals also have commitments as a part of the agreement.

Learning Logs

Grade Level(s): K-12

Resources Needed: Notebooks or journals

Area(s) Addressed: All curricular areas

Learning logs are one way to overcome the passivity of the traditional classroom. They help students become more active and responsible for their own learning across the curriculum.

Learning logs should be used to have students react, record, speculate, compare, analyze, or synthesize the ideas in the curriculum. They should not be graded but used to pursue ideas and promote higher order thinking skills. These logs are a way for students to monitor thinking, and make reflection habitual and concrete. This is writing for thinking, not for creating a polished product. These writings should help to replace textbook study questions, ditto sheets, or other low-level, memorization-oriented activities.

Literature Circles/Text Sets

Grade Level(s): 2-12

Resources Needed: Magazines, books, and novels

Area(s) Addressed: Reading, literature

Groups of four or five students choose and read the same article, book, or novel. After reading outside of class, students use notes to prepare to play one of several specific discussion roles, and come to the group with notes to help them take that job. Circles have regular meetings, with discussion roles rotating with each session. When they finish a book, the circle may report briefly to the whole class; then they trade members with other finishing groups, select more reading, and move into a new cycle.

Peer Response and Editing

Grade Level(s): 2-12

Resources Needed: Drafts of students' writings

Area(s) Addressed: Writing

Students give diplomatic and critical feedback on drafts of each other's writings. Training students to help each other with their work requires both management tools and process skills.

Problem-Based Learning (PBL)

Grade Level(s): K-12

Resources Needed: Varied, depends on the problem

Area(s) Addressed: History, character education, social studies, literature, art, media, graphic arts

Problem-based learning is a curricular model that uses an authentic problem as the impetus for learning. It begins with an ill-structured, open-ended problem, such as the controversy at one middle school about what its students really need to learn. The problem leads students to an investigation from which subject matter content and instruction springs. PBL may be the entire focus of a course, or it may occur within the context of a unit of study, which is called "post-holing". The process for approaching each problem depends on its structure, subject, and context. Following are some elements students must consider when investigating a problem:

- Meeting the problem,
- Defining the problem,
- Gathering the facts,
- Hypothesizing,
- Researching,
- Rephrasing the problem,
- Generating alternatives, and
- Advocating solutions.

PBL deepens learning throughout a unit of study and provides a genuine context for relevant learning. It requires students to use their multiple intelligences.

Reading and Writing as Processes

Grade Level(s): K- 12

Resources Needed: Printed text in any content area or discipline

Area(s) Addressed: Reading and writing

This program teaches reading as a process by using strategies that: provide before- and after-reading activities, and structure help during the reading. Scaffold and differentiate activities according to student needs and abilities. Rubrics are used to evaluate student learning.

Strategies to use before reading
- Brainstorm,
- predict,
- browse,
- skim,
- question,
- vocabulary predictions,
- vocabulary web,
- fast write, and
- K-W-L

Strategies to Use While Reading
- reading rate,
- predict,
- questions,
- reread,
- summarize,
- self-correct,
- visualize,
- identify confusing parts,
- K-W-L,
- monitor vocabulary,
- monitor understanding,
- context clues,
- book marks, and
- seek help,

Strategies to Use After Reading
- confirm, adjust predictions,
- skim,
- visualize,
- question,
- reread,

- think aloud,
- retell,
- K-W-L,
- note-taking,
- reflect through: writing, talking, dance and movement, drawing,
- graphic organizers,and
- infer

Actively involve students in making sense of the reading. Use questioning strategies that require students to use higher order thinking skills. Give students many opportunities to talk with one another about the reading.

Give students opportunities to write, before and after reading. This can be done with a partner, small groups or whole class. Allow sufficient time for students to use all of the steps in the process of writing (pre-writing, drafting, editing, revising/rewriting and publishing). Model a variety of ways for students to organize what they have learned from the reading. Give students a chance to use teacher-developed models, as well as to develop their own.

Expose students to a rich range of literature. Use literature circles, reading partners (paired reading), book clubs, etc. Books from the media center or public library, classroom libraries or students' personal collections can be used for this purpose.

Reading Buddies

Grade Level(s): K-10

Resources Needed: High-interest/low-ability books

Area(s) Addressed: Reading

In this program, upper-grade students volunteer to tutor lower-grade students. Tutoring sessions last 30 minutes several times a week. Tutors should be students who scored low Level 3 or high Level 2 on EOGs or EOCs. Tutees should be students who scored at Levels 1 and 2 on EOGs or EOCs. Tutors should tutor in the lower-grade classrooms in a specified location in the room. Tutors should participate in an initial "workshop" learn how to tutor. Tutors should meet periodically to brush up on their skills, to ask questions they have, and to solve problems. Tutors will select a book, prepare and carry out pre-reading activities with their reading buddy, read the book to their buddy, and ask comprehension questions. In addition tutors can have their reading buddies read from something they are working on in class.

Tutors wear "Reading Buddy" buttons or nametags when they are tutoring. Reading Buddies should receive some type of reward for their work; i. e., an ice cream party, a pizza party, a certificate of merit.

SAALE Model: A Systematic Approach for Adapting the Learning Environment

Grade Level(s): K-12

Resources Needed: Training in the use of the SAALE Model (5 day Trainer of Trainers available)

- Intervention Checklist K-4
- Intervention Checklist for Related Environments for Secondary Students
- Secondary Level Self-Assessment
- *Reaching the Hard to Teach* 350 page book, optional
- *Reaching the Hard to Teach* Video Training Program
- *Reaching the Hard to Teach* Teaching Manual for Trainers

Area(s) Addressed: All curricular areas

The SAALE Model is a systematic approach to developing procedures to identify the "mismatches" between the student and a "specific classroom/teacher expectation." Instructors are shown how to assess a student's learning style, evaluate classroom environments, and pinpoint areas needing intervention and adaptation. Teachers are taught how to adapt the socio-emotional, behavioral and physical environments. Emphasis is placed on lesson plan design, teaching techniques, formatting of content, use of media, student evaluation and modified grading. Teachers are presented strategies for reaching students most in need of intervention. The model was developed by Dr. Judy Wood, Virginia Commonwealth University. Two new resource texts are *Exceeding the Boundaries* (1997) and *Adapting Instruction to Accommodate Students in Inclusive Settings,* 3rd Ed. (1998).

Step Lively Program

Grade Level(s): 5-8

Resources Needed: Dance instructors; parents

Area(s) Addressed: Students' self-esteem

This is a dance program that addresses drug and violence prevention through movement and music. With the assistance of instructors, students develop their own choreography, creating original dances that reflect positive decision making and personal pride. Students' self-esteem and self-expression are increased. The project culminates with a public performance for parents and friends. Parental involvement is key to the program's success.

Strategies Intervention Model (SIM)

Grade Level(s): 6-12

Resources Needed: Teacher preparation in strategies instruction

Area(s) Addressed: All curricular areas

The Strategies Intervention Model developed by Jan Schumaker and Donald Descheler and their colleagues at the Kansas Institute for Research in Learning Disabilities is a model that identifies strategies that are optimally effective to help students meet the demands of the task in a manner that is appropriate, timely and resourceful. The goal of the approach is to help students with learning problems learn course content through instruction in skills necessary to acquire, store and express content. It focuses on teaching students how to learn and how to demonstrate command of their knowledge in performing academic tasks. For example, a student with fifth grade reading skills may use a reading strategy to delineate relevant information from tenth grade reading-level material.

The model is divided into four strands: acquisition, storage, expression and content enhancement. Each strand is broken down into specific strategies that the student learns as he progresses from a dependent to an independent learner. A sample list of the strategies that the student learns are: word identification, paraphrasing, self-questioning, visual imagery, multipass, first-letter mnemonic, paired associates, listening and note-taking, sentence writing, paragraph writing, error monitoring, theme writing, assignment completion, and test-taking.

Teachers are trained in the basic concepts of the strategy and are encouraged to tailor the strategy and instructional procedures to fit their personal teaching style.

Study Teams

Grade Level(s): 3-12

Resources Needed: Team game strategies such as Slavin's "Team Games Tournament"

Area(s) Addressed: All curricular areas

Where it is necessary for students to memorize voluminous or complex material, Slavin's "Team Games Tournament" and related strategies help students bring energy to the task. These structures help students form interdependent groups that parcel out tasks, share the work, stop to help members who fall behind, and provide an interlocking reward system where everyone gets maximum benefits if each person in the group succeeds.

Teaching New Behaviors Model

Grade Level(s): K-12

Resources Needed: Training in concept of instruction of new behavior

Area(s) Addressed: All curricular areas

The Teaching New Behaviors model was originally designed to help students with special behavioral needs transfer appropriate behavior from one environment to another. The model has implications for teachers to use to teach any content areas. Lessons are presented in a three-level format that includes awareness, understanding and application of objectives. The model is simply a structure that teachers may use to address academic needs and manage behavior, recognizing that instruction takes place in a series of steps involving both teacher and student, progressing from the active direction of the teacher (teaching) to the active involvement of the student (learning).

Information about the model is presented in Teaching New Behaviors: A Guide to Curriculum Development in Teaching New Behaviors, available from the Department of Public Instruction. The document presents 28 examples of ways to teach new behaviors, identifying the instructional level, the instructional objective, teacher behaviors, and instructional activities/suggestions. The emphasis is upon behavior but the design is applicable to all instructional areas.

Three I's for School Improvement

Grade Level(s): All

Resources Needed: School's improvement team and improvement plan

Area(s) Addressed: All goals set by the school including reading, writing, math, school climate, parent involvement, safe schools, etc.

Too often the school will attempt to improve student achievement by writing numerous strategies into the improvement plan. Guskey and Sparks noted in their article *Exploring the Relationship Between Staff Development and Improvements in Student Learning,* that changing too many things too rapidly could also result in the maintenance of the status quo. Schools need to take a critical look at their school improvement plan to assess whether the strategies create too much change too rapidly. To determine if goals, objectives and strategies are unrealistic, consider the three I's of school improvement: initiation, implementation and institutionalization. Initiation refers to building the readiness for change and includes such activities as deciding to start, assessing needs, and developing a commitment. Implementation is the period when action plans are put into practice in order to achieve intended results. Such activities include designing and carrying out plans, training, and using new practices. Institutionalization occurs when new practices are integrated into school policies, budget, and ongoing programs. These activities become part of the school's routine. Assessing the school improvement plan for the three I's can be done with the whole school improvement team or small groups within the team. Assign all or parts of the school improvement plan to various members of the school improvement team. Have members read their assigned section of the plan carefully and code each goal, objective, and/or strategy with the following: (I) for Initiation, (2) for Implementation, and (3) for Institutionalization. Use a (0) for those for which nothing has been done.

The school improvement team will share their findings with each other and the faculty. The result may indicate that too many goals, objectives, and/or strategies were written into the plan with very little resulting in actual change needed for improving student performance. Revising the plan to include a limited number of realistic goals, objectives, and/or strategies will go much farther in achieving the intended results.

VOYAGER EXPANDED LEARNING

NOTE: Some evaluative data are available on the Voyager Expanded Learning Summer Reading Program are available. The study is based on data from a total of 173 students from Richmond, Virginia; Memphis, Tennessee; Hayward, California; and West Contra Costs, California. This research was conducted by Anne E. Seraphine, Professor of Educational Psychology at the University of Texas at Austin. Some data are also available from the Charlotte Mecklenburg Schools based on a summer educational and enrichment program for K-5 foster chioldren.

Through its partnerships with the Smithsonian Institution, the Discovery Channel, NASA and the Jet Propulsion Laboratories, and Polariod, Voyager Expanded Learning has developed a comprehensive initiative that is based on the following principles:

- High-interest, research-based curricula;
- Proven child-centered teaching methodologies;
- Restructured classrooms that promote collaborative learning;
- Alignment with national and state standards;
- Expanded learning time and whole school improvement;
- Continuous professional development;
- Classroom quality assurance program;
- Parent and community involvement; and
- Basic skill development and assessment.

The innovative curricula for K-8 students are built around core subject matter and presented as "adventures." Each curriculum is multidisciplinary, integrated, field-tested, and proven to produce significant academic growth. The curriculum includes a comprehensive curriculum guide with daily lesson plans, essential instructional materials, built-in assessment, parent guides (in English or Spanish), videotapes, and audiotapes.

Teachers who opt to use the curricula must first attend a two-day implementation training that will be conducted on-site by a certified trainer from Voyager University. The cost for certification is $250 each for 1-14 participants, $195 each for 15-24 participants, and $150 each for 25 or more participants with $2,250 as a minimum for on-site training. However, the company can make special arrangements for small districts with 10 or fewer participants. Recertification training is $100 per participant.

Voyager Hallmarks

The comprehensive framework for achieving results in based on the hallmarks outlined in the chart below.

Collaborative	Child-Centered	Engaging	Experiential
Group Tone • respect • sense of community • individual responsibility • good citizenship	Student Initiative • self-directed • independent investigations • confidence building	Interest-Based Learning • intriguing subject matter • interdisciplinary explorations • advanced topics and concepts • authentic and unique delivery	Discovery-Based Learning • hands-on learning • explorations/special projects • nurturing curiosity
Pathfinders • mutual support • advancing together • exploring and discovering together	Individual Differences • learning needs • skill development and reinforcement • appreciation for diversity	Multi-Age Grouping • flexible groups • peer modeling • sharing of knowledge and experiences	Higher-Order Thinking • open-ended questions • process thinking • creativity
Learning Teams • pride • cooperation • helping others • regard for differences	Facilitating and Coaching • encouraging • modeling • co-learning	Group Interaction • active involvement • sharing knowledge and ideas • questioning	Special Events • real-world connections • interest building • community interaction • lasting impressions
Team Leaders • leadership development • opportunities for all • students teaching students • positive peer influence	Debriefing • sharing learning experiences • making connections between prior and future learning • identifying the "big ideas" • reflective thinking	Learning Stations • child-centered • responsibility • problem solving • decision making	Celebrations • knowledge and skills demonstrated • parent involvement • success focus for all

In-School Comprehensive Learning

The comprehensive in-school kindergarten reading curriculum, *Treehouse*, is designed to ensure students read at grade level or above and provides materials for up to 90 minutes per day for five days each week. Children are taught to read through an instructional framework of teaching, modeling, assessing, and reviewing essential beginning reading skills and strategies. The annual cost per class for 23 students is $2,580.

The middle school mathematics program for grades six through eight uses hands-on, activity-based learning to help students to help students to develop mathematical understanding, solve problems, and reinforce basic skills using tables, graphs, symbols, and equations. The annual cost is $1,580 for the first class per teacher and $390 for each additional class taught by the same teacher.

After-School Learning Booster Series

In the K-6 *Discovery Channel Success City, USA (First Adventure)*, students become participate in Success City, USA by becoming young inventors, product developers, business owners, employees, and consumers. They evaluate their interests and skills and select careers to investigate. Students learn the skills to obtain and keep a fulfilling job as participants in the American economic system. The content addresses applied mathematics, reading, careers, leadership, economics, entrepreneurship, business administration, and ethics.

In the K-6 *Smithsonian SomethingWild, Second Adventure*, students explore all that prowls, runs, and flies in daylight and darkness. By working through these excursions, students learn that changes in the environment can dramatically impact the existence of all living things. Content addresses reading, writing, mathematics, biology, entomology, and ecology.

PreLaw Justice for All, First Adventure for grades six through eight allows middle school students to explore the American legal system and discover how fairness, equality, and "justice for all" form the core of its foundation. In mock trials, students confront moral, ethical, and legal issues. Reviewing case studies and participating in role-play scenarios help early adolescents understand rights, privileges, responsibilities, and consequences. The content addresses reading, writing, mathematics, history, government, law, and sociology.

In the *American Dream, Second Adventure*, middle school students investigate the interactions of people, places, and environments across the American experience. Opportunities are provided for students to examine their personal beliefs, character, and the guiding principles. Content includes reading, writing, mathematics, history, government, economics, and sociology.

The annual cost for the after-school learning program is $4,400 per class of 18 students. Price is prorated by nine-week quarters for late starts.

Summer School Programs

The summer school program includes a variety of learning programs:

- *Smithsonian National SpaceCommand*, mathematics emphasis for grades three through six;
- *Discovery Channel Pre+Med Community Hospital*, reading emphasis for grades three through six;
- *Discovery Channel Pre+Med ER*, reading emphasis for grades three through six;
- *Discovery Channel Pre+Med, Code Blue*, mathematics emphasis for grades six through eight;
- *TimeWarp Egypt*, reading intervention for grades two and three;
- *TimeWarp Greece*, reading intervention for grades four and five;
- *TimeWarp The Americas*, reading intervention for grades six and seven.

The Voyager Assessment Collection

The primary purpose of this collection is to help a teacher systematically gauge what a child knows and can do so that informed instruction takes place. The Collection components include various forms of

- pre and post assessments for selected reading, writing, mathematics, and content proficiencies;
- performance assessments such as checklists, rubrics, student reflections, anecdotal records, and teacher observations to assess students' projects, demonstrations, and performances;
- teacher/captain observations for routine documentation of student behaviors related to established criteria; and
- student reflections to review and evaluate their own products and progress.

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Writers Home Page

Grade Level(s): PreK-12

Resources Needed: Computer with Internet hookup or Web Whacker on server connected to Internet, staff development to allow students and teacher to create a homepage

Area(s) Addressed: Reading-Writing

The teacher and students should establish a home page for their to publish student's works. PreK children will develop a story, draw and write the story in their own creative writing and tell the story to the teacher, who will in turn write out the story. As the students get older, they are able to write out their own work and add original or ones off the Internet.

An Author's Corner on the class or school's home page will encourage students to write for publishing. This emphasizes to the students the necessity of accuracy and correctness. The home page acts as a tool to show parents the student's writing and technical skills and an effective tool to encourage students to write.

Two schools that have used this method can be located at: http://www.angelfire.com/nc /HOTS/index.html Whiteville Middle School, HOTS program and Warren Elementary School http://www.warren.k12.ky.us.

Writing Across the Curriculum

Grade Level(s): K-12

Resources Needed: Journals, learning logs, letter exchanges, autobiographies, word problems, non-fiction writing

Area(s) Addressed: All curricular areas

Double entry journals: In the left column of the journal, students write facts about the topic under study. In the right column, students write their reflections on those facts. Journals are reviewed and used as a basis for answering questions that arise as students study content.

Learning logs: Students document personal observations as well as personal reflections on topics being studied within any content area.

Interviewing: Students interview each other using pre-writing questions. They then organize the interviewee's responses in an organized manner.

Letter exchanges: Students write to people within the community or in their classroom or school.

Autobiographies--Rather than writing their life story, students write about their experiences learning math, science, etc.

Word problems: Students construct word problems from regular number problems and exchange with another student to solve.

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