The Final Report of the Maryland State Task Force on Reading





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October 27, 1998

"An effective teacher overwhelms any other school reform effort you could possibly put in place."

—James Stronge, College of William and Mary



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Preface

The Final Report of the State Task Force on Reading is intended to be read by many audiences. Teachers, administrators, parents, university faculty, and policy makers will benefit from the research perspectives presented as guiding principles and action plans. The report attempts to communicate clearly in everyday language the complexity inherent in reading as an area of learning for students, as an instructional challenge for teachers, and as a focus of reform for policy makers in the K-16 educational community.

The Final Report is a direct response to the challenge of Dr. Nancy S. Grasmick, State Superintendent of Schools, to investigate cutting edge research, best practices, and assessment data in order to formulate recommendations to guide programs in reading across the state. The Task Force and its subcommittees met regularly for eighteen months, from April 1997 through September 1998, to deliberate the status of student performance, to consider research about instructional practices, and to generate recommendations for improving student achievement.

During the commissioning of the Task Force, several national and state experts in reading and assessment were invited to consult with Task Force members. Dr. Steve Ferrara, Director of Assessment, Maryland State Department of Education, reported comparative data outlining similarities and differences among the following reading assessments of Maryland students: Maryland Performance Assessment Program (MSPAP), Maryland Functional Testing Program (MFTP), Comprehensive Test of Basic Skills (CTBS), and the National Assessment of Educational Progress (NAEP). Dr. Francine Hultgren, University of Maryland College Park (UMCP) and a principle researcher for the Outlier Study, explained common characteristics of high and low performing schools on MSPAP. Dr. G. Reid Lyon, Chief, Child Development and Behavior Branch, National Institute of Health, provided an overview of findings in reading based on brain research conducted at several national research sites. Dr. Patricia Cunningham, Wake Forest University, author of <u>Phonics They Use</u>, presented perspectives on the role of phonics in a balanced reading program. Dr. Martha Denekla, Director of Developmental Cognitive Neurology, Kennedy-Krieger Institute, stressed the primary role of language acquisition for beginning and developing readers.

Concurrent with the on-going investigation of the Task Force on Reading, the State Board of Education invited Dr. Louisa C. Moats and Dr. Dorothy Strickland to deliver presentations at its meetings in March and April 1998. Dr. Louisa Moats, D.C. Project Director for a five-year study of early reading instruction being conducted in Houston, Texas and the Washington, D.C. public schools, addressed the State Board on research findings related to the conceptualization of reading development and the reading preparation of teachers. Dr. Dorothy Strickland, Professor of Reading at Rutgers University, summarized and explained recommendations in the report released through the National Research Council by the Committee on the Prevention of Reading Difficulties in Young Children, of which she was a member.

The Task Force bases the recommendations which comprise the Final Report on over 1500 research studies as well as the input of the experts it consulted and those who presented to the State Board of Education. The center piece of the Final Report is a set of Design Principles for Improving Reading in Elementary, Middle and High Schools. The Task Force firmly believes that implementation of the Design Principles will directly influence reading achievement through thoughtful planning in curriculum, instruction, and assessment as well as associated linkages to teacher preparation, professional development, and community involvement. In this way, the Final Report of the State Task Force on Reading mirrors the orientation of the National Research Council Report, "Preventing Reading Difficulties in Young Children." The State Task Force on Reading deliberately chose not to recommend specific programs or materials for reading, leaving those selections to the discretion of local school systems. However, the Task Force strongly encourages local school systems to use the research-based Design Principles as guidelines for program development, materials selection, professional development, and community outreach.

The State Task Force on Reading appreciates the critical review of its Final Report provided by Dr. Louisa Moats, and Dr. Martha Denckla, who have been cited above, and by Dr. Richard Vacca, Kent State University, Dr. Bess Altwerger, Towson University, Dr. Richard Allington, University of Albany, SUNY, Dr. Linda Gambrell, University of Maryland, Dr. M. Susan Burns, National Academy of Sciences/National Research Council, Dr. Joanna P. Williams, Columbia University, Dr. J. David Cooper, Ball State University, Indiana, Dr. Linnea C. Ehri, City University of New York, Dr. Kathryn H. Au, University of Hawaii, Dr. Linda Baker, University of Maryland, Baltimore Campus, and Dr. Nancy Shapiro, University of Maryland.

The work of the State Task Force on Reading presented in this Final Report was achieved by means of focused discussion directed through facilitative leadership. The recommendations presented are consensus agreements centered on awareness that improving reading instruction and student performance is a complex issue which will require time, professional commitment, and resources.

Executive Summary

The Maryland Task Force on Reading was convened in April 1997. It was charged to develop and disseminate a Resource Paper on Reading Achievement, to design and recommend a comprehensive professional development system for pre-service and in-service education, and to target ways and means to inform policy makers, practitioners, and parents about how to implement best practices for reading in schools. Dr. Patricia M. Richardson, Superintendent, St. Mary's County Public Schools, chaired the Task Force whose members represent diverse stakeholders interested in student reading achievement.

Resource Paper on Reading Achievement

Design Principles for Reading Instruction in Elementary, Middle and High Schools

Based on a review of more than 1500 studies of reading, the Task Force identified best practices of reading instruction. These research-based best practices have been translated by the Task Force into Design Principles for Effective Instruction in Reading which are organized and explained for elementary, middle and high schools. The Design Principles represent the centerpiece of consensus agreements achieved during the commissioning of the Maryland Task Force on Reading. They constitute criteria against which local school systems, teachers, parents, and community stakeholders should evaluate the depth and breadth of a curricular reading program. Key references for each of the Design Principles are provided at the end of the report.

The **Primary Recommendation** of the Maryland Task Force on Reading centers on applying the Design Principles:

■ The Design Principles for Instruction in Reading for Elementary, Middle and High Schools constitute the criteria to be used in all Maryland public schools for developing and evaluating reading programs PreK-12, selecting appropriate materials, providing pre-service and in-service professional development, and involving the public in reading instruction.

Discussion around the Design Principles charted the direction of the Task Force in developing proposals for teacher preparation and professional development to improve reading instruction and in developing a plan of action to communicate to parents and community members about reading. The proposals and plan of action are well-articulated and are entirely consistent with the Design Principles for Effective Reading Instruction.

Comprehensive Professional Development System

Proposals for Comprehensive Professional Development

The State Task Force on Reading believes that all students can learn to read proficiently. However, opportunities for learning to read are essential for every child; this depends on good teaching. The Task Force believes that all teachers are responsible for teaching reading literacy; this depends on their receiving high quality and comprehensive professional development during pre-service and in-service. The Task Force submitted to the State Board of Education in December 1997 and January 1998 inputs for four courses (12 credits) for regular and special education elementary school teachers and for two courses (6 credits) for regular and special education secondary school teachers.

Three Supporting Recommendations for these actions follow:

- Teachers of all students, regular and special education, PreK-12, in Maryland will have formal instruction in the teaching of reading.
- Teacher education institutions will need to evaluate and, if necessary, revise current course offerings and/or programs to include the Design Principles and the inputs suggested by the Task Force on Reading to the State Board of Education in December 1997 and January 1998.
- The Professional Development and Training Committee Subgroup on Pre-Service Preparation, appointed by the State Superintendent of Schools, and representing institutions of teacher education and the Maryland State Department of Education (MSDE) personnel, will be convened to develop specifications for courses and to examine how Board approved COMAR Amendments in Reading can be implemented through existing or newly created structures.

The Task Force on Reading believes that teachers currently in the classroom should be provided with engaging, research-based professional development activities which reflect the Design Principles for Effective Reading Instruction and the course inputs suggested for pre-service teacher candidates. These learning opportunities should be applicable to teachers' immediate assignments and synchronous with their personal professional development plans.

The Task Force suggests that opportunities for professional development for in-service practitioners be flexible in design and in implementation. These programs may be organized and delivered by local school systems, institutions of higher education, and/or by collaborative partnerships of local school systems and institutions of higher education.

The Task Force acknowledges as well that the preparation of leaders in reading at the graduate level is critical to the success of reading programs in buildings and in local school systems.

Thus, two Supporting Recommendations follow:

- The Professional Development and Training Committee Subgroup on In-Service Preparation, appointed by the State Superintendent of Schools, will be convened to target the development of generic frameworks for credit courses submitted to MSDE for Continuing Professional Development (CPD) approval and the assessment of how these courses are implemented.
- A group of representatives from institutions of higher education, local school systems, and MSDE will be convened to revise certification requirements in reading for principals, reading teachers, and reading specialists.

Ways and Means to Inform the Public

An Action Plan for Communicating About Reading

The Task Force on Reading identifies as critical the need to disseminate immediately information related to the Design Principles for Reading Instruction and recommendations of the Task Force related to comprehensive professional development of teachers. Dissemination vehicles must address broad-based audience concerns and focus on both awareness and implementation strategies.

In this regard, the Task Force submits An Action Plan for Communicating About Reading which identifies internal and external audiences who must be made aware of the research-based Design Principles which support the most effective reading instruction that can be provided for all students. According to the Action Plan, several work groups will be convened to design and disseminate awareness materials and to activate information networks.

Essential in the initial phase of information dissemination is the finalization of a Power Point presentation outlining and explaining the Design Principles and recommendations put forward by the Task Force. In addition, two separate videos and accompanying guides are envisioned to meet unique information needs of internal and external audiences. The generation of a logo, slogan, brochures, bookmarks, and fact sheets to accompany a visually engaging publication of the Final Task Force Report are suggested. Electronic access and media publicity are likewise anticipated.

The Supporting Recommendation follows:

■ The Action Plan for Communicating About Reading will be implemented immediately.

Conclusion

The State Task Force on Reading recognizes that this Final Report is not the final word on reading in Maryland. Rather, the value of the work of the Task Force will be noted in animated discussions and dialogue that the Final Report will generate in schools, in colleges and universities, in homes, in communities, and in the press. Improved student reading achievement can be realized by well-trained and dedicated professionals and an informed public who understand that reading involves complex skills and processes which must be supported through well-designed elementary and secondary reading programs.

Recommendations of the State Task Force on Reading

s a result of its extensive research, review, and deliberations focusing on the status of student reading achievement in Maryland, the State Task Force on Reading submits the following Primary and Supporting Recommendations:

Primary Recommendation:

■ The Design Principles for Instruction in Reading for Elementary, Middle and Secondary Students constitute the criteria to be used in all Maryland public schools for developing and evaluating reading programs PreK-12, selecting appropriate materials, providing pre-service and in-service professional development, and involving the public in reading instruction.

Supporting Recommendations:

- Teachers of all students, regular and special education, PreK-12, in Maryland will have formal instruction in the teaching of reading.
- Teacher education institutions will need to evaluate and, if necessary, revise current course offerings and/or programs to include the Design Principles and the inputs suggested by the Task Force on Reading to the State Board of Education in December 1997 and January 1998.
- The Professional Development and Training Committee Subgroup on Pre-Service Preparation, appointed by the State Superintendent of Schools, and representing institutions of teacher education and Maryland State Department of Education (MSDE) personnel, will be convened to develop specifications for courses and to examine how Board approved COMAR Amendments in Reading can be implemented through existing or newly created structures.
- The Professional Development and Training Committee Subgroup on In-Service Preparation, appointed by the State Superintendent of Schools, will be convened to target the development of generic frameworks for credit courses submitted to MSDE for Continuing Professional Development (CPD) approval and the assessment of how these courses are implemented.
- A group of representatives from institutions of higher education, local school systems, and MSDE will be convened to revise certification requirements in reading for principals, reading teachers, and reading specialists.
- The Action Plan for Communicating About Reading will be implemented immediately by MSDE in collaboration with various stakeholders.

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Overview of Maryland Reading Task Force Report

The current results-oriented focus on education has spotlighted discussion based on student achievement in reading. How well students read and how well teachers teach students to read are frequently analyzed by the public press, electronic media, and educational networks. To date, data based on extended national research indicate that many students do not demonstrate age appropriate proficiency in reading, giving rise to charges nationwide that many students are receiving inadequate reading instruction. In Maryland, students' performance in reading parallels the national trend, and similar concerns have been raised about the quality of reading instruction.

The Maryland Task Force on Reading was convened in April 1997, by Dr. Nancy S. Grasmick, State Superintendent of Schools. The Task Force was charged to develop and disseminate a Resource Paper on Reading Achievement, to design and recommend a comprehensive professional development system for pre-service and in-service education, and to target ways and means to inform policy makers, practitioners, and parents about how to implement best practices for reading in schools. Dr. Patricia M. Richardson, Superintendent, St. Mary's County Public Schools, chaired the Task Force whose members represent diverse stakeholders interested in student reading achievement.

The work of this Task Force has occurred in three stages: (1) examining student reading achievement, and surveying research-based practices for teaching reading, (2) developing proposals for teacher preparation and professional development to improve reading instruction, and (3) developing a plan of action for communicating to constituents and community members about effective reading instruction.

The Task Force believes that all students can learn to read proficiently. However, opportunities for learning to read are essential for every child; this depends on good teaching. The Task Force believes that all teachers are responsible for teaching reading literacy; this depends on their receiving high quality and comprehensive professional development during pre-service and in-service. The Task Force believes that knowledgeable teachers are the key to improving reading achievement at all grades. Delivering a comprehensive reading program depends on support from educational and community leaders.

Based on a review of more than 1500 studies of reading, the Task Force identified best practices of reading instruction. These research-based best practices have been translated into Design Principles for Reading Instruction. Within this report, the Design Principles are organized and explained for elementary, middle and secondary schools. It is imperative to enable teachers to learn and to apply these principles. The Task Force believes that if the Design Principles for Reading Instruction are adopted statewide, student reading achievement will increase.

The Design Principles for Reading Instruction represent the centerpiece of consensus agreements achieved during the commissioning of the Maryland Task Force on Reading. They constitute criteria against which local school systems, teachers, parents, and community stakeholders should evaluate the depth and breadth of a curricular reading program. Discussion around the design principles charted the direction of the Task Force in developing the proposals for teacher preparation and professional development to improve reading instruction and developing a plan of action to communicate to parents and community members about reading. The proposals and plan of action are well-articulated and entirely consistent with the Design Principles for Reading Instruction.

Thus, the Final Report submitted by the Maryland Task Force on Reading is organized as follows:

- Chapter 1. Design Principles for Elementary, Middle and High School Reading Instruction
- Chapter 2. Proposals for Comprehensive Professional Development in Reading
- Chapter 3. Action Plan for Communicating About Reading

"Current difficulties in reading largely originate from the rising demand for literacy, not from declining absolute levels of literacy. In a technological society, the demands for higher literacy are ever increasing, creating more grievous consequences for those who fall short."

-Committee on the Prevention of Reading Difficulties in Young Children

Reading Achievement in Maryland

The State Task Force on Reading studied the status of reading achievement in Maryland from the perspective of a national norm referenced test, a national criterion referenced test, and a state criterion referenced test. The Task Force analyzed data available for public review during the spring of 1997, and, from that analysis, drew conclusions which contributed to its recommendations.

The Task Force examined how well students have performed on several different tests of reading since 1991. The Comprehensive Test of Basic Skills (CTBS IV), the National Assessment of Educational Progress (NAEP), and the Maryland School Performance Assessment Program (MSPAP) were surveyed. Performance of minority students was inspected and the effects of income on achievement were noted. The following guiding questions were addressed:

1. What is the achievement level of Maryland students in reading compared to students across the nation?

2. Are Maryland students improving in reading according to MSPAP?

What is the achievement level of Maryland students in reading compared to students across the nation?

The National Assessment of Educational Progress (NAEP) measures a nationally representative sample in reading, writing, science, and math on a regular basis. In 1992 and 1994, reading achievement levels of Maryland students in grade 4 were slightly lower than the national average. The Maryland mean was 211, while the national average was 215. The lower Maryland score was significant statistically although the absolute difference was marginal. Maryland was lower than 26 other states. Achievement in Maryland and the nation did not change from 1992 to 1994 in reading. However in 1994, 7% of Maryland students were at or above the advanced level, whereas in 1992, only 4% were at that level, indicating that there were more highly advanced fourth grade students in 1994 than in 1992.

The Comprehensive Test of Basic Skills (CTBS) is designed to compare students to each other and to predict future achievement. CTBS requires relatively low-level reading skills of vocabulary, sentence comprehension, and drawing inferences from paragraphs. In 1995, Maryland students in grade 3 were reading at the 53rd percentile, students in grade 5 were reading at the 48th percentile, and students at grade 8 were reading at the 55th percentile.

CTBS and the Maryland School Performance Assessment Program (MSPAP) serve different purposes. MSPAP is designed to show school performance in subject areas and to track change over time in levels of proficiency. MSPAP requires students to comprehend whole stories or texts, apply reading strategies to learning content from text, and connect reading to content based activities, such as a science experiment.

Are Maryland students improving in reading according to MSPAP?

Since 1991, reading has been included in MSPAP. Statistical adjustments are made annually to equate the assessment for each content for each year. This allows reading improvement to be

described over time. The baseline year established by MSDE for charting school improvement was 1993. Anomalies prevented reporting of reading scores in 1993.

Reading improvement on MSPAP in grades 3, 5, and 8 was inspected. Data displayed in Figure 1, "MSPAP Across the Years by Grade: Grade 3" indicate that from 1994 to 1997, reading changed from 31% to 37% rated satisfactory which was an increase of 6 percentage points. Data displayed in Figure 2, "MSPAP Across the Years by Grade: Grade 5" indicate that from 1993 to 1997, reading changed from 25% to 36% rated satisfactory, an increase of 11 percentage points. Data displayed in Figure 3, "MSPAP Across the Years by Grade: Grade 8" indicate that from 1993 to 1997, reading changed from 25% to 26%.

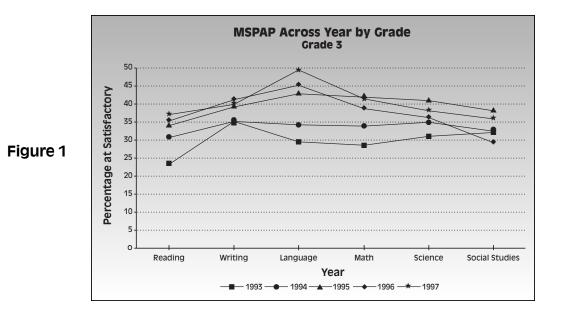
The Maryland School Performance Program (MSPP) has established the performance standard of 70% of students reaching at or exceeding the satisfactory level in reading. The Task Force concluded that although incremental progress in reading is apparent at grades 3 and 5, the rate of progress toward 70% is unacceptably slow, and the negligible rate of growth at grade 8 is cause for immediate concern.

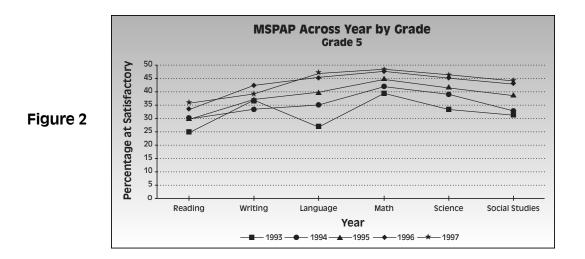
Summary

Reading achievement of Maryland students has shown slow progress. According to NAEP, Maryland student achievement in reading is slightly below the national average. On CTBS, Maryland students hover around the national average. On MSPAP, reading achievement has shown minimal improvement.

An analysis of disaggregated data from CTBS and MSPAP reveals that minority students in Maryland score significantly lower than majority students. However, the most dramatic source of achievement differences among students is family income. When compared, poverty is a higher barrier to achievement in reading than minority group membership.

In Maryland, schools and local school systems are evaluated annually on improvement reflected by MSPAP results, not by scores from NAEP or CTBS. Consequently, the State Task Force on Reading focused on the significance of MSPAP data for determining the effectiveness of statewide reading programs. Thus, an explanation of Reading Achievement in Maryland rightfully emphasizes that MSPAP requires students to read with more fluency, comprehension, integration, and critical evaluation than on NAEP and CTBS assessments.





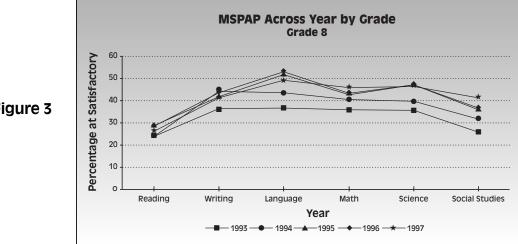


Figure 3



Design Principles for Elementary, Middle and High School Reading Instruction

The Design Principles for Instruction in Reading for Elementary, Middle and Secondary Students constitute the criteria to be used in all Maryland public schools for developing and evaluating reading programs PreK-12, selecting appropriate materials, providing pre-service and in-service professional development, and involving the public in reading instruction.

Introduction

Establishing Language Acquisition As the Foundation for Reading

The importance of learning to read is widely agreed upon in our society. This fundamental aspect of schooling must be equally available to all children. Yet, the complexity of the process of learning to read makes this goal difficult to achieve. Physiological, cognitive, social, emotional, and instructional factors all play a part in a child's literate development. Teachers may have little control over some of these factors. However, there is evidence that effective instruction may compensate for weakness in any of the other areas.

The anticipated literacy demands of the twenty-first century have created a sense of urgency among educators and policy makers that our children are adequately prepared with knowledge and skills to meet their personal and professional needs. It is imperative that literacy programs in our schools offer reading and writing instruction grounded in research-based understanding of how literacy development occurs.

How Readers Develop

The goal of reading instruction is for children to become increasingly proficient at understanding the messages and information contained in a wide range of printed materials, at applying the meaning found in print for specific purposes, and at producing meaningful print. For such development to occur, children must (a) be exposed to and use oral language; (b) understand that printed texts represent language and that there is a relationship between oral and written language; (c) comprehend the literal and inferred meaning of a variety of text types; and (d) want to engage in reading and writing for information and pleasure.

Learning to speak one's first language is an enormous task. Research in oral language development has contributed to the understanding that several behaviors are critical in acquiring language. From birth, infants must be immersed in meaningful spoken language. Models must be provided for young children learning to speak which show how people use language to communicate in meaningful ways. The environment of a young child must stimulate the child's ability to express ideas through speech. There is an expectation that he or she will speak; children are motivated and convinced that they will acquire language. The language learner takes responsibility for learning by practicing newly acquired language in an environment that promotes risk-taking. Speech is an essential element in the continuum of language learning. Listening, speaking, reading, and writing are all language processes which interconnect and reinforce one another.

Three Dimensions of Reading Development From Kindergarten through Grade Twelve.

In this report we examine all aspects of reading development from Kindergarten through Grade 12. Reading is a pervasive aspect of development beginning at age 3 as children are learning oral language and extending through high school as students use textbooks and multimedia to gain disciplinary knowledge. In addition to needs of beginning readers, in Maryland, students in intermediate grades (5-8) do not show adequate achievement according to recent MSPAP results. Therefore, we propose that three dimensions of reading must be considered as we attempt to improve achievement across the K-12 spectrum. These dimensions consist of *word recognition, comprehension of text, and self-directed reading*. Actually, all dimensions can be developed by students of all ages. However, for this report we suggest that word recognition is the focus for students from kindergarten to grade 2; comprehension of text is the focus for students of grades 2-5, and self-directed reading is the focus for students of grades 5-12. These intervals also suggest overlap.

Word Recognition

Learning to recognize words occurs most rapidly in the period between kindergarten and grade 2. Although many prerequisites are learned before kindergarten, and fluency of word recognition continues to grow to adulthood, the period of K-2 is vitally important. Precursors to word recognition are acquired with language development in children starting before three years of age. As children gain lexical knowledge (vocabulary) in ages 3-6, they also gain phonological knowledge. This refers to an understanding of the key elements in the sound system of their language (eg., English). They learn to hear the component sounds of words such as syllables and phonemes (sounds of speech). This phonological knowledge is shown in rhyming. A child's ability to detect the rhyme of "cat" and "mat" reveals the child's ability to separate the initial phoneme from the remainder of the spoken word. The abilities of segmenting the sounds of known words and constructing new words through phoneme blending are central to phonological knowledge, which is one important prerequisite to word recognition.

A second prerequisite is recognizing letters. Being able to identify written letters visually also occurs in children from age 3-5 years. As they gain visual discrimination of letters, some children also learn the phonemes associated with them. For example, many children learn the sound of the letter of their first name at an early age. Children often first recognize words by using a few salient features or general configuration. For example children may recognize STOP on a stop sign by the shape of the word. However, this does not enable children to recognize words they have not seen before. In pre-kindergarten and kindergarten, children may learn and should be taught letter-sound correspondences of the alphabet. In fact, the National Association for Education of Young Children now recommends instruction in letter-sound correspondences in young children's education. This enables children to learn word recognition in first grade which will open all of written language to them.

Recognition of simple words, such as "tub" and "fun," occur when children have a basic knowledge of phoneme segmentation, visual discrimination of letters, some letter-sound correspondences and phoneme blending ability. These skills enable children to recognize a word based on its written form. Word recognition processes normally learned in grade one consist of the following: separately identifying letters or letter clusters visually, associating sounds at the phoneme and syllable level with the letters, and blending sounds into a familiar spoken word. In addition, children learn to recognize words by analogy. They decode a new word by comparing it to a highly similar word they already know. These processes are based on the child's phonological knowledge, visual letter discrimination, sound and letter-pattern correspondences, and blending ability. Mastery of these processes is shown when children can read non-words such as "tat" or "rad". With this knowledge, children can recognize many words they have never seen before, which is a primary goal of early learning and instruction.

As students learn word recognition, they gain in speed and fluency. Being able to recognize words automatically is increasingly valuable as children attempt to comprehend increasingly complex stories and texts. Reading fluency depends on extended opportunities for meaningful reading and practice of underlying word recognition processes.

When children have learned the basics of word recognition, orthographic knowledge grows rapidly. This refers to an understanding of the written system of English. In this phase, students learn higher order rules and spelling patterns. For example, the word "greet" rhymes with "eat," which shows that the vowel following an "e" is silent. This is a higher-order rule for mapping the spelling pattern of the written word to the phonology of English. Such spelling patterns do not represent irregularity. Rather, they represent a complex orthographic system that overlays a simple and broadly applicable alphabetic principle of letter-sound correspondences. These rules are not exceptions, but reveal that English contains important patterns that are both letter-sound based (eg., single letters and one associated phoneme) and spelling-pattern based (eg., patterns of multiple letters with phonemes or syllables). Throughout school, fluency of word recognition continues to increase.

Comprehension of Text

Although beginning reading is dominated by learning to recognize words, reading in the intermediate grades of 2-5 is characterized by learning to comprehend written text. Success in word recognition does not guarantee success in text comprehension. A well-established correlation of approximately .60 between word recognition and text comprehension in grades 2-5, for example, indicates that only about 33% of the differences between children's comprehension performance are accounted for by word recognition skill. In other words, many students can read words, but are poor comprehenders. Comprehension presents a challenge for many students.

Comprehension of text consists of many processes. The most basic is gaining the main idea of a passage. Students who can comprehend a paragraph can summarize it accurately after reading. This ability to gain the gist of a passage is not simple. Comprehension requires the reader to distinguish more important from less important information. It depends on making simple inferences between and within sentences. This process involves constructing a meaning that extends what the child already knows about the topic. Further, texts differ. To understand stories, children must understand the plot, character and setting. To understand information texts, children need to detect the structure of the passage. For instance, some information texts are chronological and some are comparison/contrast in their organization. Comprehending relies not only on this flow of constructive processes, but also on explicit cognitive strategies.

To comprehend either narrative or informational text, good readers in grades 2-5 use cognitive strategies. Most prominent among these strategies are using prior knowledge, self monitoring, summarizing, and questioning. Good comprehenders use what they already know to gain new ideas from text (prior knowledge). They check themselves during reading to be sure they are understanding the content, and if they detect failures to understand, they select a new strategy (self-monitoring). They continually build new meaning as they read (summarizing). They ask questions to themselves to clarify their comprehension (questioning).

These cognitive strategies can each be taught and must be presented to most students, especially lower achieving readers. Although advanced readers will invent and use these cognitive strategies on their own, direct instruction is needed for a majority. In Maryland, the relatively low MSPAP scores in reading at grade 8 are largely attributable to low performance in comprehension of text. At the grade 8 level, reading word recognition is unlikely to be the primary source of reading failure. A lack of cognitive strategies for reading comprehension is the most obvious source of reading deficit for grade 8 and also grade 5 students.

Self-Directed Reading

Students in grades 5-12 need to become self-directed readers. While students need to use all of the cognitive strategies for comprehending text, merely possessing these strategies alone will not assure effective reading in subjects such as social studies, science, and literature. Effective students are able to regulate their own strategies for gaining knowledge from multiple texts. They know when, and how to apply a wide range of inquiry strategies. They understand which strategies are useful for different texts in different subject matters.

Reading in middle school and high school consists of inquiry skills as well as text comprehension strategies. Successful students are able to set goals for reading, search efficiently through multiple sources, organize information that they gather, synthesize viewpoints that may conflict, and communicate the findings coherently. Understanding text is at the center of these learning activities. Without effective self-directed reading, students in middle and high school from grades 5-12 will not be equipped for subject matter learning.

Motivation is vitally important to self-directed reading. To direct their reading and learning, students must possess a desire for conceptual understanding of content. This involves intrinsic motivation to read. Reading motivation is a desire to understand, to build interests, and to gain command of reading inquiry skills. That is, students must want to read for learning. If they are seriously seeking to gain conceptual knowledge, students will use good text comprehension strategies. However, if they are reading only to get a grade or to avoid failure, students will not use cognitive strategies well. As a result, their learning will be minimal. Without reading motivation, self-directed learning will not occur frequently and academic progress will suffer. In addition to motivation, self-directed learning depends also on self-efficacy. Students who believe they are capable readers have the attitude that "I can do it." This self-efficacy spurs their effort to read, and their persistence in the face of difficult text. Reading motivation and self-efficacy increase self-directed reading, and, therefore, increase achievement in all subjects.

Disengagement is a pervasive problem in middle and high schools. Many students are disaffected from reading. These students do not believe that reading has significance or worth for them. Disengaged students do not direct their own learning. They wait for the teacher to prescribe every step in their reading, writing, and learning. A remarkably high percentage of grade 8-12 students is reluctant to put effort into books and is disinterested in reading. However, classroom and school environments that follow principles of student-centered teaching and engaged learning can increase reading engagement substantially. Teaching the basics of inquiry and building the motivational support for self-directed reading are extremely valuable for reading success in middle and secondary school.

"Effective reading instruction is built on a foundation that recognizes that reading ability is determined by multiple factors: many factors that correlate with reading fail to explain it; many experiences contribute to reading development without being prerequisite to it; and although there are many prerequisites, none by itself is considered sufficient."

-Catherine Snow, Harvard University

Design Principles for Elementary Schools

Introduction

n any educational reform, an accountability system based on educational goals must be accompanied by a new vision of curriculum and instruction. This vision should merge traditional methods that have been shown to increase achievement with innovations based on recent research. In reading, especially, it is important to create an ambitious instructional framework. It is imperative that reading should become the top priority for all teachers in all schools. The first step in effective teaching is to have clear, strong goals. Schools that embrace reading, achieve in reading. Highly visible goals for reading, articulated school-wide, set the stage for increasing student achievement. However, goals are not enough.

To improve reading instruction in elementary schools, teachers and administrators should take steps to implement what is known about the best practices for teaching reading. An abundance of research, program evaluations, and classroom inquiry from teachers over the past 30 years has been conducted. The following design principles for reading instruction in Maryland are based on 1500 studies of reading published in reputable journals. This research has identified as significant a number of effective practices in reading instruction. Findings from this extensive knowledge base can be expressed in terms of principles for designing effective instruction. Integration of the principles in the classroom is essential to effective instruction. Each principle can be thought of as a thread in the fabric of good teaching. A selected bibliography at the end of the report provides examples of the literature in professional practice and research from which the Design Principles have been drawn.

The ultimate goal is to enable all students to become achieving, independent readers. In this report, we define reading as the ability to construct, examine, and extend meaning from a wide range of books and printed materials. Reading skills and processes must be used frequently by all students to gain knowledge and experience for school and personal purposes. These competencies can be learned in classrooms where the Design Principles are implemented. Although these principles for teaching reading are ambitious, they are feasible. Effective instruction is within the reach of every teacher given the proper administrative support and the necessary resources. At present in Maryland, outstanding teachers are implementing these principles daily. The aim should be to make these principles universal among all teachers. An effective school system depends on the full understanding and implementation of all of the Design Principles for Reading Instruction in Maryland.

Excellence in reading instruction can be expressed in terms of principles for a balanced reading program. The best practices identified in research for a balanced reading program at the elementary grades include the following twelve components:

- 1. Teacher Knowledge and Planning
- 2. Word Recognition Instruction
- 3. Early Intervention and Prevention
- 4. Balanced Instruction
- 5. Reading and Writing to Learn
- 6. Self-directed Learning
- 7. Collaboration for Learning
- 8. School-wide Coordination
- 9. Instructional and Learning Time
- **10. Ongoing Assessment**
- 11. Classroom Collections and School Library Media Centers
- 12. Home, Family and Community Connections

Each design principle, a description of that principle, and research-based best practices for implementing that principle follow.

1. Teacher Knowledge and Planning

Teachers possess a deep professional understanding of reading and learning to read. They spend a minimum of 30 minutes each day with instructional planning focused on reading to meet students' needs. Planning is connected to a comprehensive balanced reading program established within each school system's curricular framework.

Above all else, effective teachers of reading are professionals. They understand how children read and learn. This understanding is a knowledge base that teachers apply in the classroom. Effective teachers are not merely technicians. Rather, effective teachers understand their students and the curriculum and act on that understanding to plan and conduct a range of productive learning experiences.

Teachers' knowledge is fundamental to their effectiveness. For reading instruction, the most basic form of knowledge is understanding how children read and learn to read. In beginning reading, this knowledge consists of an understanding of the development of language acquisition, letterknowledge, phonemic awareness, phonics, word recognition, and story comprehension. Although reading comprehension is more complex than these basics, children never become proficient readers without mastery of these competencies.

In addition to teaching word recognition, effective primary teachers possess knowledge of the following: helping students become self-directed learners; organizing team collaboration for learning; conducting ongoing assessments that inform teaching; and using limited time wisely. In other words, effective teachers understand all the principles stated in this framework. Expecting all teachers to gain this knowledge is a high aim. But in view of the national and statewide emphasis on reading, teachers must be supported to attain it.

At the center of effective teaching is planning. Teachers with exciting, productive classrooms spend time planning daily. They plan alone and with colleagues. In their planning, effective teachers think about the educational goals, the timing and sequence of activities, books and materials available, writing assignments, grouping patterns, and the assessments they will undertake to inform their teaching. Planning may include reading children's books, inspecting writing journals, and thinking about connections in an integrated curriculum. Teachers have reasons and a rationale for each activity they plan for children. One ingredient of effective planning is prioritizing. Effective teachers modify their programs on a regular basis to meet curricular expectations and the needs of their students. Maintaining an uninterrupted and sustained focus on reading is critically important. Planning of this kind takes time and administrative support. Planning is the link between teachers' knowledge and action in the classroom. Effective teachers take time, and are given time, to plan.

2. Word Recognition Instruction

Teachers provide focused word recognition instruction for 15-30 minutes daily. This consists of explicit, systematic, direct instruction in word recognition and its cognitive prerequisites. Effective instruction will emphasize phonological knowledge, letter recognition, letter-sound correspondence, structural analysis of words, spelling patterns, writing, and oral reading fluency.

Development of oral language is a prerequisite to reading for all children. As soon as children learn to perceive words, they begin to gain knowledge of the sound system. In story book reading with family members and conversation with peers, children learn that words have sounds that can be separated into phonemes and syllables. Phoneme segmentation and blending are prerequisites to reading because the speech sounds must be associated with individual letters for children to read English. In the preschool years, children also learn to recognize letters visually. Basic levels of phonological knowledge and visual recognition of all letters should be taught to all children in prekindergarten and kindergarten.

In kindergarten, children should be taught six groups of prereading skills. These include vocabulary and oral language, phonological knowledge, visual recognition of all the letters, writing of individual letters, environmental print knowledge, and narrative story comprehension. To foster each of these six groups, scheduled activities should be included in the kindergarten program. For vocabulary and oral language, teachers should emphasize such activities as show and tell, story telling, reciting nursery rhymes, poems, and chant, and learning the names of environmental objects. To teach phonemic knowledge, teachers should provide for rhyming, word segmenting, phonemic blending (making new words from separate sounds), and songs or poems that play with words. To foster visual recognition, teachers should expect children to be able to name all the letters, to write them, to recognize the one-one correspondence between written and spoken words, to distinguish sounds in words, and to use some knowledge of beginning sounds and letters. Teaching about environmental print consists of helping children read signs or symbols (eg., street signs, commercial logos, labels, names) that require sight recognition, and understand their meanings. Story structure, including the basics of the plot (what is happening?), character (who is involved?), and setting (where is this happening?), should be taught. Reading aloud, using "big books" and other high interest material is a motivating form of practice in these processes.

During first grade, the complexity of word recognition tasks in instruction should be increased. At the beginning of the year, teachers should conduct an assessment to determine the word recognition knowledge possessed by each child in the classroom. The assessment should include letter knowledge, phonological knowledge, letter-sound correspondences, simple word recognition, spelling, and writing. Every one of these aspects of word recognition should be taught to every child who does not already possess these skills. For example, every child should be taught to recognize and write each letter, if not already known. The sounds of each letter should be taught to ensure secure letter-sound correspondence competence. By the middle of first grade, all children should be able to read a significant number of new words composed of familiar letter and sound elements that have been taught. This is an important benchmark for mid-first grade reading. This benchmark should be tested with classroom-based assessment, and the results should inform the direction of instruction.

As children become fluent at simpler levels of reading in first grade, more complex letter-sound correspondences containing consonant clusters, vowel diphthongs, and multi syllable words should

be introduced. To recognize new words, teachers should help children use familiar words as analogies. Both reading words by analogy and sounding out words should be strategies available to all students.

Reading meaningful, decodable books should occupy a substantial amount of children's instructional time by the end of first grade, if not sooner. Extended practice through active reading is necessary to gain fluency, and the self-confidence needed to persist in the face of difficulties. Further, conceptual development should be emphasized to help children gain a knowledge base for comprehension of stories and books.

In second grade, word recognition instruction continues by expanding the scope of words to be learned and the expectations for fluency in oral reading. Second grade word recognition instruction consists of teaching children to decode (sound out) longer (6-15 letter) words, and to be systematic in their use of strategies. Teachers should emphasize the use of analogies and the roles of prefixes, suffixes, and roots of words. Orthographic conventions in English, such as spelling changes to reflect tense (fall, fell), or semantically related words (rib, ribbed, ribbon) should be taught. By the end of second grade, students should be able to read aloud fluently, decode unknown words successfully, write words and stories, and construct meaning from texts. In addition, second graders should be able to identify major types of text including narrative, exposition, documents such as tables and correspondence, or directions. They should be able to read silently; comprehend the literal meaning, and begin to demonstrate higher comprehension skills. These are important benchmarks that should be assessed in classroom-based, ongoing assessment activities.

Instruction in word meaning and comprehension should increase rapidly as second grade students gain fluency in oral reading. For example, the role of sentence context in determining the meaning of words once they are pronounced is important. For instance, the different meanings of "rocks" in "the girl rocks her baby sister" and "he stepped on the rocks to watch the game" illustrate that word meaning is determined both by pronunciation and by context. Most important, comprehension of the plots, characters, and resolutions of stories should be taught.

Effective primary word recognition instruction is provided in a block of time. Within the language arts block, word recognition instruction is given in a 15-30 minute period daily. The instruction is planned to optimize the learning of phonology, letters, orthography, vocabulary, and oral reading fluency. The reading of meaningful, decodable books is provided in addition to this word recognition instruction. Reading aloud, and discussing children's background experiences related to books is valuable. However, time for shared book reading is allocated in addition to the time of 15-30 minutes for word recognition instruction.

Word recognition instruction often requires teaching several different groups, usually of 4-5 students. This grouping is needed to give students tasks that are matched to their cognitive levels. As the teacher is providing instruction to one group, other groups can be engaged in buddy reading, spelling, free writing, and book reading. This flexible grouping requires extended planning. Each child's daily time of 15-30 minutes spent in word recognition instruction cannot be compromised or substituted for the other activities.

3. Early Intervention and Prevention Strategies

Teachers routinely screen beginning readers for signs of reading difficulty. Additional instruction is provided for low-achieving readers. Teachers allocate an additional 30 minutes daily to individual children or flexible groups not larger than 4-5 students. Students are given explicit instruction in word recognition and spelling. In addition, reading familiar text and reading books that are accessible to beginning readers will help students develop fluency.

Within the typical classroom at all elementary grade levels, students' reading experiences and competencies vary dramatically. Lower achieving students will not make headway in other content areas without improvement in reading. They need special attention. Effective teachers monitor student progress in reading on an ongoing basis and provide additional time daily for individual or small group instruction to improve the competencies of those who are not making adequate progress. The classroom teacher, in partnership with the reading specialist, provides small group instruction in the classroom to support the acquisition of reading skills. In addition to providing instruction in the classroom, time in the daily schedule is set aside for special reading instruction for the struggling reader with an early intervention program.

Features of highly effective intervention programs include an emphasis on early detection of reading problems in first grade. Effective word recognition instruction for lower achievers includes all the cognitive skills described in the principle on word recognition instruction. Children should be assessed to determine their levels of knowledge of phonology, visual letter recognition, letter-sound correspondences, spelling patterns and word reading.

After identifying students' needs, teachers should provide explicit, systematic, direct instruction in phonics in an organized sequence. Teaching phonological knowledge, including an emphasis on onset and rime, phoneme segmentation, phoneme deletion, and phoneme blending, is necessary. In addition to the usual letter-sound correspondences, the more advanced spelling patterns involving consonant clusters, long vowel patterns, and advanced word decoding strategies should be emphasized. These represent challenges for these students. Struggling students need abundant opportunities to gain fluency in oral reading after they have gained basic ability to recognize some words. While reading easy-to-read text, students can attend to the letter-sounds and use meaning and structural cues to confirm their decoding. Use of meaningful, decodable books, and repeated reading can advance reading fluency of these students.

Emphasizing the writing of letters and words is important for cognitive processes of reading as well as the motor coordination of writing. Furthermore, writing naturally leads to spelling. Spelling is a window into student's knowledge of the alphabetic principle. As spelling is a source of difficulty for low achievers, teaching students words that are being taught in reading and designated sets of patterned spelling words is necessary for these students. In all work with lower achievers, frequent assessment of their word recognition knowledge is needed to assure that the instructional tasks are well matched to the emerging skills of the students.

Students' participation in special reading instruction shifts over time. As students improve, they may move out of the group. As students transfer into the class, they may need special help. The focus of teaching shifts according to students' needs for different aspects of reading. Communication among all staff members with regard to progress of specific children is essential.

4. Balanced Instruction

Teachers provide balanced instruction by engaging children in meaningful literacy experiences to meet individual needs. A balanced program includes a variety of reading and writing structures that support reading, writing, listening and speaking. In class-rooms, the program encompasses read alouds, shared reading, guided reading, independent reading, and various support systems for writing. A solid base of childrens' literature is used as well as a selection of easy-to-read books.

Effective teachers balance instruction by connecting reading and writing. The main focus of both reading and writing is to make meaning. Effective instruction provides modeling, scaffolding, and opportunities for independent, self-directed reading and writing. For example, shared reading uses an enlarged text that all children can see. The teacher uses a pointer to help all children follow along. Shared reading encompasses the reading and rereading of big books, poems, songs, and other texts as well as children's stories. This instruction should be based on children's literature and information books. Understanding and enjoyment of the text is emphasized. Comprehending the plot, character, setting and resolution should be systematically taught. Shared reading explicitly demonstrates early strategies such as word-by-word matching and the processes of reading extended texts.

In guided reading, the teacher works with small groups who have similar reading levels. The teacher selects and introduces the text. The teacher supports children as they reading the whole text by pointing out strategies used before, during and after reading. The teacher guides, demonstrates and explains strategies for word recognition and comprehension to students as they are reading. Independent reading challenges readers to identify words independently while reading texts well within their reading grasp. Providing time for sustained reading and allowing children to choose books that they wish to read helps develop confidence and ownership in reading. Reading workshop allows students time to read books of their own choosing and to reflect and share both orally and in writing through response logs. The "read-aloud" is a valuable element in any reading program because it involves children in listening for enjoyment while providing an adult demonstration of fluent, expressive reading.

Shared writing involves teachers and students working together to compose messages and stories. The teacher supports early writers by being the scribe. In this process, the teacher demonstrates how writing works, drawing attention to letters, words and sounds. With interactive writing, writing strategies and the ways words work may be demonstrated. Children learn to hear sound in words and connect this knowledge to letters, thereby increasing the relationships between reading and writing. Guided writing gives children opportunities to be authors and to develop their voice. They learn to write for different purposes, such as to inform, entertain, and persuade. Teachers coach students as they are writing and use conferences to improve the quality of student work.

Literature-based instruction is emphasized. This includes authentic literature, and conceptually rich information books. These materials provide a base for comprehension instruction. Direct teaching of getting the main idea, summarizing, and connecting new text with prior knowledge is emphasized. In addition, children's conceptual development is fostered by emphasizing information from topics in social studies, science, and other content subjects. Instruction in word recognition as described in another design principle, can be connected to literature-based instruction in many ways. For example, students can practice decoding, collect spelling words, and notice spelling patterns in words that are found in literature. Extended reading of literature is valuable for oral reading fluency and simple comprehension.

Classroom organization should assure that 120-140 minutes are used for reading/language arts. In addition to word recognition instruction allocated for 15-30 minutes per day, these literaturebased reading and writing activities should be allocated not less than 90 minutes per day. Refer to the design principle on instructional and learning time for more information.

5. Reading and Writing to Learn

Teachers integrate reading and content. They organize instructional units in which reading and language arts are taught simultaneously with contents such as science and social studies. Teachers provide opportunities for students to conduct research and solve problems through reading and writing.

As one form of integration, teachers can form thematic units. To create a thematic unit, teachers first choose a conceptual theme that is consistent with the school and district curriculum goals. A theme that can meet the goals in science, social studies, reading/language arts, math, and fine arts is inclusive and exciting. Science themes, such as adaptation, changes in the earth's surface, or simple machines, can be good starting points. Social studies themes, such as colonial life in Maryland, can be connected to science, literature, and reading. Thematic units contain explicitly stated objectives for reading coordinated with the content goals. Skills, strategies, and competencies in reading are written in conjunction with the goals for content learning. Teachers can seek help from other classroom teachers, reading specialists, media specialists, and other school resources in planning interdisciplinary units.

Direct instruction in comprehension strategies should be provided. Teachers should emphasize strategies of using background knowledge, questioning, comprehension monitoring, and summarizing. These complex cognitive strategies are best taught in a meaningful content context. Each of these strategies should be taught separately with teacher modeling, coaching, and guidance about when and how to apply each strategy. The use of the strategy should benefit the student by fostering better understanding of narrative or informational text. Each strategy should be taught, reviewed, practiced and discussed on multiple occasions. Once is not enough for strategy development. Effective teachers provide opportunities for students to set their own short term and long term purposes and questions to guide their reading. This gives students a personally significant purpose for using these cognitive strategies. Students should get the idea that using strategies helps them learn and enjoy the ideas and information from texts.

Student inquiry activities provide in-depth understanding of a topic which enables students to become experts in a content area. Such a unit provides an ideal context for learning higher-order reading strategies. Being knowledgeable in a topic empowers students to set goals effectively, monitor their comprehension, search for information, synthesize ideas across multiple resources, and develop fluency. A thematic unit is a frame of reference for self-directed reading. When students have some knowledge about a topic and are learning more about it, they can take charge of their own reading. This helps them become self-directed learners.

6. Self-directed Reading

Teachers provide opportunities for students to choose books based on their interests, and topics they are currently learning about in an integrated curriculum. Ample time is given for students to respond extensively through writing and discussion. Students are encouraged to share their knowledge, personal responses, and strategies for reading.

The strongest predictor of students' ability to comprehend text is the amount and breadth of their reading. There is an old adage that people learn to read by reading. To a significant degree this has been proven by scientific studies. The amount of reading surpasses intelligence, parental background, and specific methods of instruction in determining achievement in reading. However, enabling students to spend large amounts of time reading is a challenge. Effective teachers ensure that all students read frequently and widely by taking account of the following three factors: (1) student motivation (2) accessible books and (3) time and opportunity to read.

Effective teachers increase the amount of reading by nourishing motivation for self-directed reading in many ways. First, primary teachers support students' expectations that they will learn to read. Children come to primary school with a belief that they will learn to read. This "can do" attitude, however, can be quickly squelched by failure. Effective teachers select tasks for beginning reading activities on which all students will succeed. Initial success builds confidence and desire to read. When children believe they can read, they will choose to read. Success, self-efficacy, and amount of reading grow together simultaneously.

In addition to cultivating a "can do" attitude in their students, motivational teachers support a "want to read" disposition. The desire of young children to read is fueled by effective teachers who enable them to see personal significance in their reading. The first step in making reading personally significant is "real world" relevance. When students see that reading is linked to their lives, their curiosities are sparked. Effective teachers build on real world experience and use "hands-on" activities in the classroom as a basis for reading development. When children become knowledgeable about a topic, their interest grows. This interest feeds the desire to read wider and to learn more. Children need a print-rich environment. Celebrating the work of featured authors and illustrators can enhance appreciation for reading. As students' motivation increases, they become self-directed readers. Teachers who support self-directed reading with a print-rich classroom and designated time for reading are rewarded with students who gain a sense of ownership for literacy.

7. Collaboration for Learning

Teachers create social structures to enable students to respond to their reading. These may include whole class teaching, teams, partnerships, and individual work. In various groupings, students share their experiences, knowledge, strategies for reading, and personal interest about books.

Effective teachers make learning a collaborative enterprise. The nature of collaboration changes over time, but the principle of social construction of meaning from books should be implemented at all grades. Collaborative learning occurs at all ages.

Effective teachers often create literature study groups. As students read the same book, teachers invite students to share their own interpretations of the text. Alternative versions of a character's motives or plot outcomes are accepted. Journal writing and personal responses to the literature give students a basis for negotiating meaning with their peers. Each student's individual interpretation is enhanced by the social construction of meaning. Using the reader response perspectives of global understanding, developing inter-

pretation, personal reflection, and critical stance, students become engaged in revisiting what they have read by explaining their interpretations with peers. With literature study, diversity in the classroom provides a rich array of different opinions and cultural frames for discussing story meanings.

When students are reading to be informed in social studies and science, inquiry groups engage students in the process of generating questions, accessing information from multiple sources, organizing the information, and presenting it to various audiences. Collaboration fosters students' reflection of their own work as well as the ability to work together in becoming experts on a topic.

Teachers can use pen pals, book clubs, partnerships, and team work to foster reading. In these social contexts, effective teachers emphasize reading skills and strategies. They enable students to support one another's learning by providing modeling, guidance, and feedback. Content of stories and information books can be discussed and debated within productive team structures. Team building requires time, attention, and expertise, but the effort often results in gains in reading achievement and social cohesion.

8. School-wide Coordination

Teachers plan collaboratively for students' learning by discussing goals, curriculum, students' special needs, and literacy successes with colleagues. Communication within and across grade levels emphasizes consistency in the program and allows for clear instructional goal setting.

Effective schools have excellent stewardship of the reading program. With leadership from the principal, reading specialist, and library media specialist, teachers participate on a team to form objectives, establish a scope and sequence of goals, and advise in the purchase of books and materials. A full-time reading specialist who is knowledgeable about current research-based instructional techniques, elementary school curriculum, and students' needs in reading serves as the team leader. The media specialist is a key team member bringing to light new publications and techniques for school-wide distribution of books. The effective teacher is an individual and also a team member who has individual goals for the classroom and team goals for the school.

School-wide coordination is needed to establish schedules that optimize the time for blocks of teaching reading and language arts. In addition, continuity of the reading program across grades is essential. The types of novels, for example, and the elements of the novel that are emphasized in each grade level are discussed by the school team. This assures that students can experience cumulative learning opportunities and comprehensive coverage of all aspects of every form of literature.

If schools are integrating reading instruction with different content areas, teachers plan their reading in coordination with science, social studies, math, and art. In this case, school-wide coordination will connect reading goals, activities, and texts to the objectives of the other content areas. Although integrated instruction can be the most powerful vehicle for teaching reading, it is important to maintain an emphasis on the reading goals, reading activities, and reading time within the integrated scheme.

9. Instructional and Learning Time

Time allocated for reading and language arts instruction is at least 120-140 minutes per day. This time is scheduled in large blocks to allow for integrated activities. During instruction, students are actively reading, writing, or discussing text for at least 85% of the scheduled period. Extended learning time in school, home, and community settings is beneficial.

A wide range of valuable plans can be used to implement this principle. For example, some plans for primary reading instruction use a block reading/language arts design consisting of 30 minutes each of guided reading, word study, writing, and self-selected reading. Each block occurs daily, each with its own pattern. Other plans use an integrated reading/language arts unit for 140 minutes with a sequence consisting of the following: literature-based reading and discussion, word recognition instruction, and writers' workshop, with children moving to each of these activity centers. A third design consists of two 70-minute blocks of reading and writing instruction. A morning block consists of literature reading, word recognition instruction, discussion, and writing. The afternoon block is content-oriented (science and social studies) with reading, discussion, word study, and writing. Many plans are feasible.

Far more important than the time scheduled for reading is the time students are engaged in reading. In effective classrooms, students are actively interacting with texts at least 85% of the time scheduled for reading and language arts. Being engaged in reading includes activities such as the following: being absorbed in silent reading; intensely following a guided reading activity; participating closely with a partner in "buddy reading" and joining a text-based discussion about a story or information book. Time spent doing work sheets and exercises are notably absent from effective classrooms. Engaged reading time involves meaningful text, either being read or being written.

Classrooms with high amounts of engaged reading time are well-managed. Teachers' goals are clearly stated and understood by students. Routines for getting settled and beginning work are well established. Materials are accessible and plentiful. Feedback about progress is given to the students. Many management problems are frequently solved if students have purposes for reading that are meaningful to them. When students are motivated to read and write, behavior problems and management challenges subside. Effective teachers increase engagement by creating personal significance for reading through many avenues. They may connect reading to student background, build thematic units that are tailored to student interests, and enable students to pursue their own purposes for reading and writing. All of these improve the productive use of time in the classroom.

Administrative support for engaged learning time is crucial. Engaged learning time is reduced in the classroom whenever disruptions and interferences occur. Consequently, as effective teachers reduce distractions from inside the classroom, effective administrative support minimizes interruptions from outside the classroom.

10. Ongoing Assessment

Teachers observe students' reading and writing behaviors continually to inform decisions they make regarding instruction and learning. Assessment reflects the interactive nature of reading. Teachers observe how students respond to text and discuss what they read. Teachers observe, document, and collect examples of student work that show the development of reading and writing.

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Effective teachers have explicit procedures for continuously assessing each student's progress toward reaching the reading objectives of the classroom. For primary students, these goals may emphasize word recognition, oral reading fluency, and story understanding. For intermediate students, these goals may emphasize text comprehension, vocabulary development, inquiry skills, and reading-writing connections in various genre.

Effective teachers use two kinds of assessment— continuous informal assessment and periodic formal assessment. Continuous informal assessments may include observing students during classwork, perusing student journals, and gauging the reading comprehension of individuals from their class participation. These observations are used to make instructional modifications and inform the teacher's evaluation of student achievement.

Beyond informal observation, effective assessment includes on-demand tasks. For primary students, running records are taken and analyzed for each child. Monthly miscue analysis may also be applied. Effective teachers assess oral reading fluency and spelling regularly to learn about children's understanding of phonics and word recognition. At all grades, on-demand activities for comprehension include story retelling, using reader response perspectives of global understanding, developing interpretation, personal reflection, and critical stance in discussion and written response of students' reading. Teachers also make ongoing assessments of students' question-asking, information-seeking, and knowledge synthesis. These qualities are demonstrated in portfolios, reports, and exhibits of students' work.

Ongoing assessment is most useful when it is based on processes and products of an instructional activity. Effective assessment is fused with instruction. Both informal and formal assessments are most effective when they are linked to reading goals and desired student outcomes. The reading outcomes in the MSPAP are understood by effective teachers. If classroom instruction and assessments are linked to these outcomes, teachers will be able to keep reading instruction relevant to outcomes for which schools are accountable. The reading specialist serves a pivotal role in the coordination of school-wide assessments; assists teachers in the interpretation of formal test data; and provides individual assessments for students with special needs.

11. Classroom Collections and School Library Media Centers

The school provides a library media center containing a minimum of 20 titles per student. Each classroom collection contains a minimum of 500 titles which could be partially drawn from the library media center. Print represents a variety of genre including information books, narratives, poetry, references, and multimedia. A variety of cultural backgrounds is represented in the collection. Books encompass a range of difficulty and interests so that they are accessible and appropriate to all students.

Classrooms in which students achieve highly in reading have substantial school library media centers and classroom collections. Books in the classroom are immediately accessible and are promoted by the teacher. Books rotate from the library media center for self-directed reading and content reading. The best collections are selected by the teacher working with the library media specialist based on decisions about student needs. The classroom collection is integral to fulfilling the goals of the reading program. It is especially useful for making reading-writing connections and fostering reading during thematic instruction. A solid classroom collection of books is most essential for developing the self-directed reading of learners. Teachers who spark children's curiosities have an abundance of books enabling students to satisfy their interests.

Building a classroom collection is a team effort. School library media specialists are integral to building a school-wide plan. The library media center and classroom collections can be coordinated in a wide range of rotating or complementary designs. Teachers and library media specialists collaborate to find books in review sources, catalogs, exhibits, conferences, local libraries, and book stores.

It is not the presence of books, but the students' ownership of the books that contributes to reading achievement. Students feel ownership when they are familiar with the books and want to make books a part of their lives. Effective teachers enable students to take ownership of the classroom collection by helping them organize it and take responsibility for its use. Reading instruction may include teacher read-alouds to provide appetizers for the books. Teachers and library media specialists may encourage students to share books by reading aloud in a similar way. They enable students to use the book collection daily as part of normal teaching and learning. All types of books are used in a myriad of ways as tools for fostering reading.

12. Home, Family and Community Connections

Teachers, school administrators, and public school policy makers, collaborate to strengthen the way in which families, communities, businesses, and other governmental agencies can support lifelong literacy. Effective reading instruction involves the cooperative efforts of family, community organizations, daycare providers, agencies dedicated to children's issues, business partners and existing family support services.

More than 30 years of research has shown that family involvement is crucial to student achievement in reading. The education of children is a shared responsibility of the home and the school with each bringing different strengths to the home-school partnership. Parents are their children's first teachers. Research has shown, for example, that young children who have rich early literacy experiences progress more readily through formalized reading instruction. On the other hand, children whose early environment is limited in literacy experiences are most often at risk for reading failure. Effective schools move beyond asking parents to monitor homework and read to their children. They develop a full partnership that sustains the development of lifelong reading skills.

The National Standards for Parent/Family Involvement programs need to be applied to Maryland's reading efforts. Parenting skills can be promoted and supported by schools offering parent workshops on reading programs and how children are assessed in reading. Regular communication can include information on what children will be studying for the following month and ways in which parents can help at home. Brochures can assist parents in improving their children's reading. Schools can send home summer reading lists and provide information on the public libraries' summer reading programs. Parent involvement in student learning can be made an integral part of reading instruction. For example, teachers can provide guidelines for parents to ask open-ended questions as they read with their children. They can encourage parents to take their children to the library, provide writing journals, play word games, read the newspaper together, and hold daily or weekly family discussions on what each family member is reading. Parent volunteers can be trained to work with the schools' reading program and serve as tutors with students. Parents can be full partners in decisions that affect children by serving on school improvement teams.

At least five factors have been identified by research as related to the ability of parents to affect a child's achievement in reading: the socioeconomic status of the parents; their educational level; the aspirations they have for their child's education; their beliefs about literacy; and, the parents' promotion of literacy activities. A brief workplace literacy program, while not likely to affect income and general education levels directly or quickly, can affect parents' aspirations for their children's education, their ability to act as a role models, and their promotion of literacy activities. Public school policymakers need to work closely with workplace literacy providers to identify those families that would benefit from programs targeting not only the worker, but also the worker's family members.

Because of the strong connection between families and literacy, family literacy services should be provided. Four basic models have been used for delivering family literacy services: (1) a direct adult-direct child model involving integrated programming, intense instruction, and participation of a parent and the preschool child; (2) an indirect adult-indirect child model, which is characteristic of many library programs and involves participation of the child and adult in activities which promote reading for enjoyment; (3) a direct adult-indirect child model, in which the parents are instructed in literacy and in reading to children, and (4) a direct child-indirect adult model, in which the child receives instruction with parent participation. Using a multi-agency approach, communities need to implement a network of family literacy programs so that Maryland can reduce the number of children who enter school already at risk for reading failure.

Maryland Reading Task Force Design Principles

Principle Description Teachers possess a deep professional understanding of 1. Teacher Knowledge and Planning reading and learning to read. 2. Word Recognition Instruction Phonemic awareness, phonics, structural analysis, spelling, and vocabulary development are important components of learning to read. They require explicit, systematic, direct instruction. 3. Early Intervention and Prevention Struggling readers are given additional instruction for reading familiar text, word recognition, and writing. Elements of balanced instruction include read alouds, 4. Balanced Instruction shared, guided, independent, and interactive reading and writing. 5. Reading and Writing to Learn Integrated learning opportunities are organized to support students' learning social studies and science through research, problem solving, and student reflection. 6. Self-directed Reading Children read independently to develop their interests, knowledge and literary experience. Teachers create social structures to enable children to 7. Collaboration for Learning respond to reading through literature discussion groups and response. 8. School-wide Coordination Teachers plan collaboratively, within and across grade levels, and among resource personnel within a school. 9. Instructional and Learning Time Reading and language arts instruction is allocated in large blocks of time, at least 120-140 minutes per day. 10. Ongoing Assessment Teachers observe students' reading and writing and review formal test data to make decisions about teaching and learning. 11. Classroom Collections and Classroom collections and school library media centers School Library Media Centers have a variety of books to support many levels of readers. 12. Home, Family, and Community organizations, parents, and care providers **Community Connections** help students make their literacy relevant.

ELEMENTARY

"Our schools meet or exceed the goals that have been held historically but fail to meet the more recent expectations set by society. After nearly a century of expecting schools to develop the basic literacy abilities of most students, but expecting advanced literacy to be learned by only some, today's schools have been challenged, or expected to develop advanced literacy in virtually all students. In other words, society now expects schools to educate all students to levels of proficiency expected historically of but a few."

-Richard Allington, State University of New York, Albany

Design Principles for Middle and High Schools

Introduction

Students need to become critical, independent readers to be prepared for the marketplace of the future. Yet, their basic reading abilities are not increasing significantly. The scores of eighth grade students on MSPAP have shown negligible progress from 1991-1996. In addition, closely associated with reading achievement are amount and breadth of student reading.

Too many middle and high school students are non-readers. In a study published by the National Center for Educational Statistics, eighth graders reported how much independent reading they did. A total of 20% answered "None." Sixty-eight percent of these students who reported never reading independently, were in the bottom half of the population in achievement. Likewise, students who spend more time reading were more likely to be in the top half in reading comprehension achievement. Unfortunately, only 10% of grade 8 students nationally read three hours a week, or 30 minutes per day, independently for their own enjoyment. However, 62% of the students who spent 30 minutes per day reading for their own enjoyment were in the top half in achievement. The conclusion is that students who rarely or never read are very likely to be low achievers in reading. At the same time, active readers who devote time and interest to reading independently are likely to be high achievers. Active reading and achievement increase simultaneously.

Helping students to become competent, independent readers is the responsibility of every teacher. All teachers, especially teachers of English, history, science, and math are important agents in the literacy learning of young adolescents. All teachers can foster the improvement of reading by using the principles of reading instruction presented in this report. The best practices for reading instruction in middle and secondary school represent opportunities for students to improve their reading and learning strategies. These principles are tools for teachers and administrators. They can create an instructional atmosphere that is book-centered. The first step in improving middle and secondary reading achievement is a commitment from teachers, administrators, and parents to create a literate culture at school and home.

In middle and high school, content literacy is the ability to use language to learn and communicate content in a given discipline. Language is an essential tool for thinking and learning. Teachers can help their students maximize content learning from their courses by engaging them in all language forms—speaking, listening, writing, and reading. For students to become literate in the content areas, their teachers need to help them understand concepts and terminology, as well as diverse ways of thinking associated with the sciences, arts, and humanities. Effective teachers provide opportunities for their students to produce the various discourses that communicate knowledge in different fields. Teachers support content area literacy when the classroom experiences offered require their students to analyze, synthesize, and imagine.

Content area literacy is not a matter of learning to read and write. It is a matter of using reading, writing, speaking, and listening to learn about content. Defined as learning about content, and thinking and communicating about content, content area literacy is not a singular concept. The type of knowledge that is fundamental to the social sciences is different from that most important to the natural sciences. Ways of speaking and writing about that knowledge differ between fields, as well. The principles that follow can support middle and secondary students' content area learning, thinking, and communicating.

Our belief is that all students can learn. When students fail, it is most often due to a lack of opportunity. Evidence shows that good teaching is a strong factor in increasing this opportunity.

Therefore, we believe that improvements in reading instruction for middle and high school students are needed urgently. Reading does not end in the primary grades. Without sustained teaching through middle and secondary school, reading achievement, like achievement in all contents, will languish. To improve middle and secondary instruction, the following practices of teaching should become commonplace in all Maryland schools. We should support teachers in knowing and implementing these principles in their classrooms.

These following principles are based on exemplary practices in teaching reading in the middle and high schools. A growing research base undergirds these practices. They are consistent with data-based theories of literacy development among adolescents. While some principles are similar to those of elementary school, others are different. The set as a whole applies to middle and high school teaching and learning:

- 1. Teacher Knowledge of Content Literacy
- 2. Learning with Text and Technology: Strategies and Time
- 3. Guided Inquiry
- 4. Self-directed Learning
- 5. Student Collaboration
- 6. Ongoing Assessment
- 7. Classroom Collections and School Library Media Centers
- 8. Utilizing a Reading Specialist
- 9. Home, Family, and Community Connections

Each design principle, a description of that principle, and research-based best practices for implementing that principle follow:

1. Teacher Knowledge of Literacy Content

Teachers are knowledgeable about the processes of reading and writing. They are familiar with strategy instruction, guided inquiry, self-directed learning, and text selection.

Content area literacy instruction places written and oral language at the heart of learning about a subject. When teachers link reading and writing, students can explore, clarify, problem-solve, and think deeply about content. Content teachers model the use of graphic organizers and response journals to organize and think about text information. They continue to draw students' attention to text patterns and organizational devices to facilitate understanding of the relational aspects of the information found in texts.

Effective teachers provide students with frequent and varied opportunities to write. Students' writing experiences in school improve their thinking when they are asked to write more than simple short responses to questions. When students keep learning logs or journals, take notes, or create graphic organizers, they develop deep conceptual understanding. Writing to learn can occur prior to reading or listening, enabling students to activate prior knowledge or make predictions, as well as afterwards, to help them summarize or synthesize.

In content area classrooms, effective teachers also provide opportunities for students to compose thoughtfully; teachers support a writing process in which students plan, rework ideas with a goal of making sense, and edit so their communication is clear. Content area writing includes elaborated

writing traditional for school contexts, such as essays. However, students also have the opportunity to create lifelike writing, as well. At all times, they are aware of the purpose and audience for their communication. Writing is seen as a collaborative process. The teacher provides opportunities for students share their finished communication publicly. Expectations and criteria are clear from the outset of an assignment. Rubrics are effective tools for doing this. Technology can play an increasing role in student production as students learn to word process, create spreadsheets, or present through computer graphics, video, or audio productions.

2. Learning with Text and Technology: Strategies and Time

Teachers provide instruction in cognitive strategies that help students generate meaning from varied print and non-print sources. To enable students to interpret information and relate it to what they already know, teachers emphasize strategies that can be used before, during, and after reading. This helps students to monitor their comprehension and apply strategies flexibly with a variety of materials. Teachers use authentic texts of interest and relevance to students and multiple texts from different genre, including novels. Folktales, reference books, information books, and World Wide Web sites are consulted and searched.

Content teachers connect available texts with student interests. They assist in the acquisition of new knowledge from text by bridging students' existing ideas with the new. They plan meaning-ful text-based activities that are interesting, providing sufficient but surmountable challenges. Such learning takes time. Therefore, instructional time for reading consists of at least 60 minutes per day devoted to instruction in strategies for reading, gaining knowledge from text, and writing in response to text. This calls for a collaborative effort among departments, teams, and resource personnel.

Effective content area teachers understand that new knowledge creates new ways of thinking about the familiar. These teachers provide opportunities for students to apply their new ideas to authentic problems in their own lives. Instruction incorporates scaffolding to allow students to face challenges without fear of failure. Students learn when their text-based activities build on what they already know and inspire them to expand their knowledge.

Essential to effective teaching with text is the use of authentic and multiple print sources and technology to support learning. Teachers purposefully evaluate and select texts to provide a wide range of materials that will be appropriate to their students' learning needs, interests, and capabilities. Textbooks are only one source of information in a content area classroom. Various genres, reading levels, and cultural perspectives are represented in the materials available to students in any content area. Primary documents, authentic literature, and computer simulations or other real-life problems foster learning in the social sciences, humanities, natural sciences, mathematics, and technology fields. Print materials are used in conjunction with technological resources, such as World Wide Web sites and CD ROM-based materials. Teachers support students' awareness and motivation to explore a wide variety of print and non-print materials. They share enthusiasm for favorite resources in their particular content area. In studying content that is not disembodied from their lives, students are given the opportunity to evaluate the range of materials available to them and to self-select texts that best meet their learning needs.

Teachers provide instruction in cognitive strategies that help students generate meaning from varied print and non-print sources. Teachers emphasize strategies to be used before, during, and

after reading, enabling students to interpret information and relate it to what they already know. This helps students monitor their comprehension and apply strategies flexibly with a variety of materials. Examples of strategies include generating questions, summarizing, predicting, and clarifying meaning. Effective teachers also model text restructuring by using graphic organizers and response journals. To help students in making meaning, teachers provide instruction in recognizing and identifying text patterns and facilitate the use of literature circles and discussion groups. Strategy instruction is offered in the English/language arts block, and extended to all interdisciplinary classes enabling students to see the relationships between cognitive strategies and the curriculum content. Effective teachers utilize a portion of instructional time to read aloud to students. This time enables students to focus on the varied use of literary techniques, to understand and appreciate the flow of language, and to extend meaning.

3. Guided Inquiry

Teachers help students generate broad questions for research and support them as students engage in inquiry. Effective learning from text in middle and secondary school is based on salient topics and themes. Teachers enable students to access information through multiple sources, synthesize it with their own perspective, and share it with peers.

Teachers help students generate broad questions for research, reflection, and inquiry into significant topics. These topics may be drawn from social studies, science, and other fields, or from challenges that developing adolescents face. To culminate learning, guided inquiry supports student communication through classroom publishing, web site design, or presentation in a public forum.

To support inquiry in a discipline, content area teachers introduce their students to the conventional forms of discourse in their particular content area. Students must discover how to extract the important information from what they hear and read. They must be able to produce that information in accepted forms in their own speech and writing. One important step in helping students understand the knowledge of a content area would be to help them discover the ways in which they most often structure that knowledge. For example, many historical events are often discussed in either a sequential or a problem-solution framework; science and math are often represented as cause-effect relationships; literature follows variations of story grammar. Once a teacher introduces text frameworks, students can select the strategies that they find will work best for understanding and integrating the information, ideas, and themes in their topic of inquiry.

Teachers encourage students to read and write about topics of personal significance over extended periods. In this process, students become intrinsically motivated to read and learn. They gain the desire to read for its own sake. Effective teachers motivate students to read self-selected books at least 60 minutes per day for their own enjoyment.

4. Self-directed Learning

Teachers continue to enable students to become engaged readers and writers. Students learn to set realistic but challenging goals for their reading and writing. They acquire intrinsic motivations for reading, gaining conceptual knowledge, and extending their literary experience.

Teachers help students learn to set realistic but challenging goals, and pursue their goals to fulfillment. Teachers provide support for students' self-efficacy as readers and intrinsic motivation for learning. They enable students to appraise their competencies and needs. As students progress, teachers provide positive feedback which gives each student a strong self-concept as a learner.

Effective content teachers create opportunities for their students to interpret and to create their own productions, thus rendering content material meaningful to them. A wide variety of available resource materials representing different genres and levels foster student success, interest, and meaning-making. The teacher's role is that of a guide, not of "teller." When the teacher functions as a guide, students learn which aspects of the learning process are negotiable and which are non-negotiable. Students develop self-efficacy and their own realistic, but challenging goals. Learning is constructed in cooperative peer groups, discussions, and process writing. Students learn to build their own bridges between prior and new knowledge.

Teachers support growing independence by helping students determine a focus, engage in effective study strategies as they interact with content materials, and evaluate their work. Teachers explain and model cognitive strategies and provide practice for students to monitor increasingly their own learning. Students learn to anticipate meaning and check their understanding as they receive oral or printed messages.

Studying entails hard work. Teachers make students aware of appropriate study strategies, demonstrate those strategies, and ask students to practice applying them. Students can organize and record information they must remember with double-entry notes or text frames and other graphic representations. When students have the opportunity to develop expertise in an area of interest to them, they are willing to engage in this hard work. Students are decision-makers throughout their learning process. They decide the appropriateness of given materials for the purposes they have set for their own learning. Students set learning goals, develop a plan for reaching those goals, and monitor their progress toward attaining them, making adjustments as needed. They decide what product(s) will demonstrate their learning and develop the criteria and audience for their productions.

5. Student Collaboration

Teachers enable students to collaborate for learning from text. Classroom groups based on teacher assignment, or student interest in a topic, or student expertise are formed for guided inquiry activities, or strategy instruction.

Effective middle and high school teachers regularly incorporate small group discussion into course activity, to foster long-term understanding of content. In guided inquiry activities, and strategy or writing instruction, teachers form groups in the classroom. Groups may be based on teacher assignment, student interest in a topic, or specific forms of student expertise. The role of individual students is emphasized by discussing responsibilities, obligations and duties of each group member.

Participation in discussion groups enables students to face their confusions, check their interpretations, and discover alternative explanations. The content area teacher establishes an environment conducive to discussing learning by building a sense of community, setting guidelines, selecting groupings, and monitoring group progress. Students must feel comfortable with the peers with whom they interact. Small groups are associated with greater student willingness to take risks. Additionally, in small groups, students have a greater opportunity to participate. Content area teachers continue to occasionally read aloud to students, particularly from higher level texts. This reading helps students appreciate the flow of language, and extend their understanding.

6. Ongoing Assessment

Teachers continuously assess reading and writing of all students to inform instruction and to accelerate student learning. Assessments are based on multiple sources of information including student work on projects, on-demand tasks (quizzes or tests), performance assessment tasks, and teacher observation of classroom work.

Effective teachers assess process, as well as product. They use observation to discover students' use of strategies such as connecting new text to prior knowledge, self-monitoring for meaning, summarizing, and extending meaning. In writing, teachers look for evidence of planning, revising, and editing. They look for student engagement in discussion.

Effective teachers support students in the development of self-assessment capacities. This enables students to understand criteria on which they will be judged in classroom assessments, the MSPAP, or standardized tests. With instruction, students learn to judge their performance and demonstrate their continued growth in content literacy.

In content classes, students take increased responsibility for self- and peer-assessment. Effective teachers encourage students to monitor their own reading comprehension and extension of text meaning. Students are provided opportunities to make decisions about appropriate representations of learning from text and participate in the development of criteria for evaluating their productions. With teacher guidance, students learn to set their own standards and strive for higher achievement.

7. Classroom Collections and School Library Media Centers

The school provides a library media center which serves as the information hub of the school. Print represents a variety of genre, including information books, narratives, poetry, references, and multimedia. A variety of cultural backgrounds is represented in the collection. Books encompass a range of difficulty and interests so that they are accessible and appropriate to all students.

The middle and high schools provide a minimum of 25 and 30 titles per student respectively. Reference materials and literature related to content are readily accessible to students in the classroom and media center. Classroom collections are selected by teachers to support the use of primary documents and authentic literature to help students maximize understanding of content concepts and terminology. Building the classroom collection is the work of the classroom teacher in collaboration with the school library media specialist and reading specialist.

Effective teachers working with school library media specialists enable students to evaluate the relevancy, authority, and accuracy of content information by engaging students in the exploration of a wide variety of content materials on a daily basis. Effective school library media specialists provide curricular support to students by enriching and extending classroom instruction._

8. Utilizing a Reading Specialist

Middle and secondary school staffing includes a full time reading specialist who is knowledgeable about current research-based instructional techniques, curriculum, a wide range of adolescent and young adult literature, and students' needs in reading and writing. The specialist provides school-wide leadership in reading and writing instruction across disciplines. In addition, middle school students have specific reading instruction from a certified reading teacher for one class each day through the eighth grade.

Integrated planning sessions between teachers and the middle school reading specialist focus on scheduling reading instruction in the curriculum, supporting strategy instruction, and coordinating effective time use for teaching students to learn from all texts types. The reading specialist assists with the school-wide selection of print and non-print materials that match curricular themes with student reading needs. The reading specialist supports strategy instruction and text selection by all teachers, and assists content teachers in providing reading instruction for all students. Collaboratively, the reading specialist, media specialist, and content area leaders provide the effective use of media reference materials and literature in the content classrooms. The reading specialist also assists classroom teachers and content teachers in providing reading instruction for all students.

9. Home, Family, and Community Connections

Teachers, school administrators, and public school policy makers collaborate to strengthen the ways in which families, communities, businesses, and other governmental agencies can support lifelong literacy. Effective reading instruction involves the cooperative efforts of family, community organizations, agencies dedicated to young adults' issues, business partners, and existing family support services.

When education is valued throughout the community, students become literate in the content areas. As parents and the community encourage all students to hold high career aspirations, they become motivated to engage in learning experiences inside and outside the classroom. High aspirations must be fostered in home and school environments that demonstrate that the locus of control of a student's success is internal. That success is related to an individual's efforts rather than to external influences.

As students move through middle and high school, the reading and writing demands increase significantly. In all subject area reading, there is greater emphasis on the evaluation, synthesis, and application of newly acquired knowledge. Parents' interest in and support of their child's homework assignments continues to be an important factor in their child's success. Parents need to be available to answer questions or discuss what their child is learning. They need to continue to show interest in what their child is learning and in what their child thinks.

Teachers and parents can work together to help students build a sense of self-efficacy through their reactions to student success and failure. Teachers can express the need for parental involvement in their children's education. The importance of continuing to establish a home reading environment cannot be overestimated. Teachers can also encourage parents to support students' problem-solving strategies. Parents should continue to advocate for their children through middle and high school and build positive relationships with their child's teachers and coaches.

Maryland Reading Task Force Design Principles

MIDDLE AND HIGH SCHOOL

Principle	Description
1. Teacher Knowledge of Literacy Content	Teachers are knowledgeable about the processes and instruction of reading and writing.
2. Learning with Text and Technology: Strategies and Time	Ample time is provided for students to learn and apply strategies before, during, and after reading to a variety of texts.
3. Guided Inquiry	Students engage in research to answer questions about salient topics and communicate their find- ings through a variety of methods.
4. Self-directed Learning	With teacher guidance, students set and pursue realistic, but challenging goals and develop intrin- sic motivation for reading and learning.
5. Student Collaboration	Students participate in collaborative groups to learn from text.
6. Ongoing Assessment	Teachers make informed instructional decisions through their observations of students' reading and writing and review of formal and informal assess- ments.
7. Classroom Collections and School Library Media Centers	Multiple texts and technology are selected by students based on their needs and capabilities.
8. Utilizing a Reading Specialist	The school-based reading specialist provides lead- ership in reading and writing in all disciplines.
9. Home, Family, and Community Connections	Teachers, school administrators, and public school policy makers collaborate to strengthen the ways in which families, communities, businesses, and other governmental agencies can support lifelong literacy.

"There may be no job in the world more important than that of teaching children to read. Powerful teaching depends on a deep understanding of what is to be taught alongside a sensitive understanding of when a child may have difficulty with what is being taught."

-Marilyn Jager Adams, Harvard University

Proposals for Comprehensive Professional Development in Reading

Teachers of all students, regular education and special education, PreK-12, should have formal instruction in the teaching of reading.

Teacher education institutions will need to evaluate and, if necessary, revise current course offerings and/or programs to include the Design Principles and the inputs suggested by the Task Force on Reading to the State Board of Education in December 1997 and January 1998.

The Professional Development and Training Committee Subgroup on Pre-Service Preparation, appointed by the State Superintendent of Schools, representing institutions of teacher education and Maryland State Department of Education (MSDE) personnel, will be convened to develop specifications for courses and to examine how Board approved COMAR Amendments in Reading can be implemented through existing or newly created structures.

The Professional Development and Training Committee Subgroup on In-Service Preparation, appointed by the State Superintendent of Schools, will be convened to target the development of generic frameworks for credit courses submitted to MSDE for Continuing Professional Development (CPD) approval and the assessment of how these courses are implemented.

A group of representatives from institutions of higher education, local school systems, and MSDE will be convened to revise certification requirements in reading for principals, reading teachers, and reading specialists.

Teacher Education — Pre-service Preparation

Chronology of Events

At its meeting in December 1997, the State Board of Education received from the Task Force general statements describing the content of reading theory and methodology which should be taught to Maryland teachers seeking certification in the following areas:

Early Childhood Education (Nursery-3) Elementary Education (Grades 1-6 and Middle School) Special Education Generic Infant/Primary (Birth-Grade 3) Special Education Generic Elementary/Middle (Grade 1-Grade 8) Task Force decisions were grounded in the belief that courses in reading theory and methodology should be presented to pre-service teacher candidates as part of field-based experiences. The content of all courses should be research-based and represent contemporary thinking.

Specific inputs for the following four courses were suggested by the Task Force:

• Processes and Acquisition of Reading

Students will develop an understanding of the language and cognitive precursors to reading acquisition. They will demonstrate a knowledge of word recognition and the reading acquisition process. They will demonstrate an understanding of the role of experiential background, prior knowledge, motivation, and personal significance to developing readers.

• Reading Instruction

Students will demonstrate a knowledge of best practices and instructional strategies which focus on the purposes for reading. They will demonstrate an understanding of the role of concepts of print, word recognition instruction (for example, phonics, spelling, vocabulary, writing), text structure, comprehension, and classroom organization in developing a variety of strategies to use with developing readers. They will also demonstrate a knowledge of early identification and intervention strategies for low achieving readers.

• Assessment for Reading Instruction

Students will demonstrate an understanding of how to use data from state, local, and classroom assessments of reading to make ongoing instructional modifications in their classrooms as a strategy for prevention and intervention. They will demonstrate an understanding of how to implement a variety of reading assessments and adjust the curriculum accordingly. They will demonstrate a knowledge of under which circumstances the following types of reading assessments are valuable: teacher observations, running records, learning logs, performance assessment, portfolios, projects, rubrics, and norm-referenced assessments. They will demonstrate a knowledge of how to provide meaningful input to Admission Review and Dismissal (ARD) assessments. In addition, they will be able to communicate assessment data about individual student reading performance to parents.

• Materials and Motivations for Reading

Students will build support for long term motivation of developing readers within a framework of inquiry. They will experience a variety of texts to be used in their classes when reading for literary experience, reading to perform a task, and reading for information. They will apply strategies for selecting materials, for retrieving materials, and for evaluating materials. They will demonstrate an understanding of accessibility, variety of media, multicultural materials, text features, and oral and written responses to literature. They will also demonstrate a knowledge of the role of parents in supporting reading programs.

At its meeting in January 1998, the State Board of Education received from the Task Force general statements describing the content of reading theory and methodology which should be taught to Maryland teachers seeking certification as secondary regular or special education teachers. The Task Force reiterated its belief that courses in reading theory and methodology should include extensive field-based experiences, and the content for these courses should be research-based and represent contemporary thinking. Specific inputs for "Methods of Teaching Reading in the Secondary Content Areas, Part I" and "Methods of Teaching Reading in the Secondary Content Areas, Part II" were suggested. Two possible pathways for candidates seeking certification as regular and special education teachers at the secondary level were proposed as follows:

Option A

Two three-credit courses for a total of six credits. Courses are identified as "Methods of Teaching Reading in the Secondary Content Areas, Part I" and "Methods of Teaching Reading in the Secondary Content Areas, Part II."

Option B

A six-credit integrated program model to include the content of courses identified as "Methods of Teaching Reading in the Secondary Content Areas, Part I" and "Methods of Teaching Reading in the Secondary Content Areas, Part II."

The Task Force outlined its recommendations for pre-service teacher preparation for all candidates seeking secondary teaching certification as follows:

Methods of Teaching Reading in the Secondary Content Areas, Part I

This course outlines the essentials of reading processes necessary for secondary students to become proficient readers. The design principles for middle school and high school are emphasized including: guided inquiry, learning with text and technology, self-directed learning, student collaboration, classroom collections and utilizing a reading specialist. The following content is introduced so that teacher candidates focus on the meaning of the five components listed below and how the components individually, or in clusters, play out in the classroom:

1. Purposes and Types of Reading

Candidates are introduced to the three purposes for reading: reading for literary experience, reading to be informed, and reading to perform a task. They discuss and practice strategies for interpreting narrative and expository text.

2. Assessment

Candidates are introduced to various methods for assessing student reading, including, but not limited to, reader response theory. They learn about methods for diagnosing reading difficulties and how to modify or accommodate instruction based on diagnosis.

3. Cognitive Strategies in Reading

Candidates are introduced to cognitive strategies in reading. They focus on the reading process (before-during-after reading strategies). As such, they consider establishing a context for reading, the importance of prior knowledge, and strategies for vocabulary acquisition. They learn about how to help students become independent readers and how to employ those strategies successfully. Using multiple texts, searching for information, and evaluating text critically are studied from the perspective of helping students become independent learners as they construct, examine, and extend meaning of texts they use in content area study. Additional discussion centers on ways to assist students who are delayed in reading make meaning by using a variety of texts and approaches.

4. Strategy Instruction

Candidates are introduced to how to incorporate reading in a meaningful way through studentcentered instruction. Read aloud strategies, modeling for extended meaning, and the integration of reading and writing promote the concept of shared responsibility for literacy. Candidates learn the importance of reader-text matches, readability loads, and the reading ranges of students. In this way, they become familiar with the features and structure of text, learning activities which present authentic tasks and choices in reading, and the use of developmentally appropriate trade books for content area study. Methods for diagnosing reading difficulties and making instructional modifications and accommodations based on diagnoses are explored further.

5. Motivational Development

Candidates are introduced to intrinsic and extrinsic motivation for reading and the development of self-efferacy. The importance of student-centered instruction for helping students become self-directed learners is emphasized.

■ Methods of Teaching Reading in the Secondary Content Areas, Part II

This course reviews and expands the content from "Methods of Teaching Reading in the Secondary Content Areas, Part I" and focuses on teaching secondary students to learn from text. Teachers apply theories, strategies, and practices in daily classroom use. Additional content is introduced and stressed in the following three components:

1. Purpose and Types of Reading

The complexity of technical reading, i.e., reading in the content areas, is introduced. Strategies for helping students read documents and integrate meaning with authentic texts are studied and applied in daily classroom use.

2. Cognitive Strategies in Reading

The impact of multi-media resources and how students can learn to process multi-media information are introduced. Strategies for helping students connect reading with these and other study skills are studied and practiced in daily classroom use.

3. Integrated Instruction

Integrating content area goals with reading goals is taught intensively. Strategies for helping students communicate effectively about what they have read in content area texts are studied and practiced in daily classroom use.

In addition, the Task Force offered the following recommendation for candidates seeking certification in the following areas:

- Candidates Seeking K-12 Teacher Certification (For example, Art, Music, Physical Education, Health)
 Recommendation: Candidates will be required to select either the elementary or the secondary sequence.
- Candidates Seeking Teacher Certification in Addition to a Professional Licensure (For example, Audiologists and Speech Pathologists)
 Recommendation: Candidates will be required to select either the elementary or the secondary sequence.

• Candidates Seeking Teaching Certification in a Resident Teacher Certificate Program **Recommendation:** Candidates will be required to complete 90 clock hours in the five required components and will be required to select either the elementary or the secondary sequence.

The inputs described above for teacher certification requirements in reading were translated into regulatory language by the Division of Certification and Accreditation and presented to the State Board of Education for permission to publish at its meeting on February 24-25, 1998. The COMAR Amendments were published in the Maryland Register on April 24, 1998. The 30-day open comment period ended on May 26. The State Board conducted a public hearing on May 26. The State Board was originally scheduled to vote on the COMAR Amendments for Reading on June 23, 1998. At its meeting in June, the State Board voted to postpone its vote on the COMAR Amendments in Reading until the July Board meeting. However, at the June meeting, the State Board voted to accept from the Task Force it's recommendation to amend the regulation for candidates seeking K-12 Teacher Certification. The new proposed amendment would allow these teachers to pursue a six-credit sequence.

Other Decisions

In discussion which extended beyond the information it provided to the State Board in December 1997 and January 1998, the Task Force addressed specific recommendations for certification of teachers in the following areas: teachers of the hearing impaired, teachers of the visually impaired, teachers of the severely profoundly handicapped, and teachers of trades and industry. The recommendations are outlined as follows:

- Teachers of the Visually Impaired: The nature of this disability requires specialized training. The Task Force did not recommend requiring additional reading credits for pre-service teachers of the visually impaired.
- Teachers of the Hearing Impaired: Certification in Special Education is required for certification as a teacher of the hearing impaired. Pre-service candidates would fall under the reading requirements for Special Education recommended to the State Board in December 1997 and February 1998.
- Teachers of the Severely and Profoundly Handicapped: Certification in Special Education is required for certification as a teacher of the severely and profoundly handicapped. Pre-service candidates would fall under the reading requirements for Special Education.
- Teachers of Trades and Industry: The Task Force recommended that the number of semester hours of teaching reading/writing be increased to six hours. It is further recommended that the number of semester hours of credit which may be earned through Maryland State Department of Education approved workshop activities be increased from 9 to 12.

When the final Task Force Report is accepted, the decisions reached by the Task Force will be communicated to the Division of Certification and Accreditation. Those recommendations which are applicable will be translated into regulatory language to be considered by the State Board of Education and the Professional Standards in Teacher Education Board (PSTEB).

Teacher Education — In-service Preparation

Teachers currently in the classroom should be provided with engaging, research-based professional development activities which reflect the Design Principles for Reading Instruction and the course inputs suggested for pre-service teacher candidates. These learning opportunities should be applicable to teachers' immediate assignments and synchronous with their personal professional development plans.

The Task Force suggests that opportunities for professional development for in-service practitioners be flexible in design and in implementation. It is probable that many of these programs will be organized and delivered by local school systems, but it is also commendable for institutions of higher education, acting alone or in partnership with local school systems, to plan and implement professional development in reading for classroom practitioners.

Next Steps

It is urgent that a Professional Development and Training Committee appointed by the State Superintendent of Schools, be convened as soon as possible to develop specifications for courses delivered to pre-service and in-service teachers. This committee will be assisted in its work by national consultants.

Pre-Service Preparation

The Task Force appreciates the role of collaborative partnerships in implementing satisfactorily any new changes in certification, course, or program structure. For this reason, a subcommittee of the Professional Development on Training Committee, representing Maryland teacher education institutions and Maryland State Department of Education (MSDE) personnel will focus on how the suggested course inputs can be implemented through existing or newly created structure.

In addition, the Task Force offers its membership as resources to PSTEB, the K-16 Council, the Maryland Association of Colleges of Teacher Education (MACTE), and local school systems as discussions on performance outcomes for teacher candidates related to reading course specifications evolve.

In-Service Preparation

In order to establish consistency statewide for in-service programs based on the Design Principles and reflecting pre-service course specification, a sub-committee of the Professional Development and Training Committee will be formed. This group would be

comprised of representatives from the Task Force subcommittee on professional development, local school system Continuing Professional Development (CPD) liaisons, and curriculum specialists. Their task would target the development of generic frameworks for credit courses submitted to MSDE for CPD approval and the assessment of how these courses are implemented. The work group would be charged to use the Design Principles as a guideline to delineate further reading theory and methodology referred to in the COMAR Amendments and to allow for the addition of other content in reading at the discretion of local school systems. In addition, the work group would be

expected to design a Trainer of Trainers component to ensure building local capacity in implementing the approved courses.

The Task Force recognizes that leadership is critical to the success of reading programs in buildings and in local school systems. The limited time of the Task Force's commissioning did not enable participants to study fully requirements in reading for principals, reading teachers, and reading specialists which are currently prescribed by advanced professional certificates and graduate studies. For this reason, the Task Force recommends that a work group of representatives from institutions of higher education, local school systems, and MSDE be convened to revise certification requirements in these areas of leadership. "Not only the first grade teacher, but also the parent, the pediatrician, the school administrator, the curriculum consultant, the textbook publisher, the state legislator, and the secretary of education need to understand both what is truly hard about learning to read, and how wide-ranging and varied are the experiences that support and facilitate reading acquisition."

-Catherine Snow, Harvard University



Action Plan for Communicating About Reading

The Action Plan for Communicating About Reading will be implemented immediately by MSDE in collaboration with various stakeholders.

The Task Force on Reading identified as critical the need to disseminate immediately information related to the Design Principles for Effective Reading Instruction and recommendations of the Task Force related to comprehensive professional development of teachers. Dissemination vehicles must address broad-based audience concerns and focus on both awareness and implementation strategies.

The following Action Plan for Communicating Reading identifies internal and external audiences who must be made aware of the research-based Design Principles which support the most effective reading instruction that can be provided for all students. "Internal audiences" are the members of the educational community; "external audiences" are families and community members. Efficient distribution of this critical information requires a carefully planned series of events and activities specifically tailored for these groups.

Internal Audiences

Following acceptance of the Final Report of the Task Force, several work groups will be convened to design and disseminate awareness materials and to activate information networks. Essential in the initial phase of information dissemination is the finalization of a Power Point presentation outlining and explaining the Design Principles and recommendations put forward by the Task Force. Developed primarily for teachers, the Power Point presentation is intended to be available for startup school activities during early fall 1998 and is conceived as a critical resource available to School Improvement Teams as they plan and evaluate balanced reading programs.

The Task Force earnestly resolves through personal contacts and by using Power Point or other prepared materials to communicate its findings to varied educational audiences across the state, including but not limited to, the following: State of Maryland International Reading Association Council (SOMIRAC), K-16 Council, Maryland Association for Supervision and Curriculum Development, Maryland Association of Teacher Educators, Maryland Association of Boards of Education, Maryland Association of Colleges of Teacher Education, Maryland Association of Elementary School Principals, Maryland Association of Secondary School Principals, Maryland PTA, Maryland State

Teachers Association, and the Baltimore Teachers' Union. In addition, Task Force members will schedule with MSDE staff work study sessions related to the Design Principles and Task Force recommendations for local school system supervisors of reading, early childhood, special education, and content areas. The Maryland Reading Network and the state Regional Professional Development Networks provide opportunities to develop a cadre of teachers to train colleagues on the Design Principles and Task Force recommendations.

External Audiences

It is important that stakeholders outside the education community understand the complexity of reading, the elements of a balanced reading program, and how the Design Principles for Effective Reading Instruction can be used to ensure quality instruction. Task Force members in collaboration with MSDE School and Community Outreach Office will conduct a series of information sessions (using Power Point or prepared materials) for mass media representatives. Other targeted audiences for focused presentations include, but are not limited to, the following: Maryland Business Roundtable, Maryland Committee for Children, Ready at 5, Advocates for Children, Youth, and Families, Head Start Collaborative, Even Start, public libraries, home and hospital groups, homeless shelters, state and local agencies for family support, and faith communities.

Next Steps for Communicating About Reading

In order to deliver this information to internal and external audiences, several different ways of communicating must be developed. In addition to Power Point presentations, two separate videos and accompanying guides are envisioned to meet unique information needs of internal and external audiences. Additionally, it is anticipated that public interest will be generated by means of a logo and slogan for educators as well as media, business, and community partners to use in highlighting collaborative literacy campaigns. Printed materials, such as brochures, bookmarks, and fact sheets, to accompany a visually engaging publication of the Final Task Force Report, will be designed and disseminated. The Final Task Force Report will be mounted on the MSDE web site. Public service announcements by famous Maryland residents will be broadcast on local television and radio networks.

Conclusion

The Final Report of the State Task Force on Reading synthesizes over 1500 research studies and the input of national and state experts in reading. The result of this analysis is the Design Principles for Reading Instruction in Elementary, Middle and High Schools. The Design Principles represent the centerpiece of consensus agreements achieved during the commissioning of the State Task Force on Reading. They establish standards against which local school systems, teachers, parents, and community stakeholders should evaluate the depth and breadth of a curricular reading program.

Formulation of the Design Principles charted the direction of the Task Force in developing proposals for teacher preparation and professional development to improve reading instruction and in developing a plan of action to communicate to parents and community members about reading. Thus, the Task Force submits the following: A Primary Recommendation and six recommendations which support it.

The Design Principles for Instruction in Reading for Elementary, Middle and High Schools constitute the criteria to be used in all Maryland public schools for developing and evaluating reading programs Pre-K-12, selecting appropriate materials, providing pre-service and in-service professional development, and involving the public in reading instruction.

The State Task Force on Reading stresses the need for collaborative partnerships in implementing the Design Principles, comprehensive professional development, and communication networks focused on reading. It calls for teams comprised of representatives from the Maryland State Department of Education, local school systems, and institutions of higher education to use the Final Task Force Report as a starting point for working together to ensure that teachers are well-prepared and the public is well-informed.

The State Task Force on Reading recognizes that its Final Report is not the final word on reading in Maryland. Rather, the true value of the work of the Task Force will be noted in animated discussions and dialogue the Final Report will generate in schools, in colleges and universities, in homes, in communities, and in the press. Improved student reading achievement can be realized by well-trained and dedicated professionals and an informed public who understand that reading involves complex skills and processes which must be supported through well-designed elementary and secondary reading programs.

"The practice of teaching reading, like the practice of scientific medicine, never should cease to be, in the most positive sense of the term, a work in progress."

-David Denton, Director, SREB Health and Human Services Program

Elementary Reading Instruction

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