

Adolescent Literacy: Ensuring that No Child is Left Behind

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(This article appeared in the November 2003
issue of *Principal Leadership* under the title
“Don’t Forget the Adolescents”)



In America, we have a fundamental belief that all children should learn the basics of reading in the primary grades and continue to build on those skills throughout their elementary and secondary school years. But the reality is that over 5,000,000 high school students do not read well enough to understand their textbooks or other material written for their grade level. According to the National Assessment of Educational Progress (NAEP, 2002), twenty-six percent of these students cannot even read material that many of us would deem essential for daily living, such as road signs, newspapers or bus schedules. Students unable to handle the demands they face in high school will certainly struggle in technical school and college. For example, over half the students in college remedial courses will drop out of college. In short, if the reading challenges experienced by these individuals are unmet in high school, they face the real possibility of being undereducated, underemployed, and underprepared to participate successfully in the twenty-first century.

If reading problems are allowed to persist into adulthood, the consequences for individuals can be formidable. The National Adult Literacy Survey (NALS, 1992) indicated that about 22% of adults were performing at Level 1, the lowest of five literacy levels. This Level 1 group is considered to be *functionally illiterate*. Those who are functionally illiterate lack the ability to use reading, speaking, writing, and computational skills in everyday life and work situations. For example, a functionally illiterate adult is unable to fill out an employment application, follow written instructions, or read the directions and complete a *1040EZ Tax Form*. In sum, when confronted with printed materials, adults without basic literacy skills cannot function effectively.

United States policymakers are aware that America has a literacy problem. The *No Child Left Behind Act* passed in 2001 with its focus on elementary and middle schools, offers a long-term strategy for improving adolescent literacy.

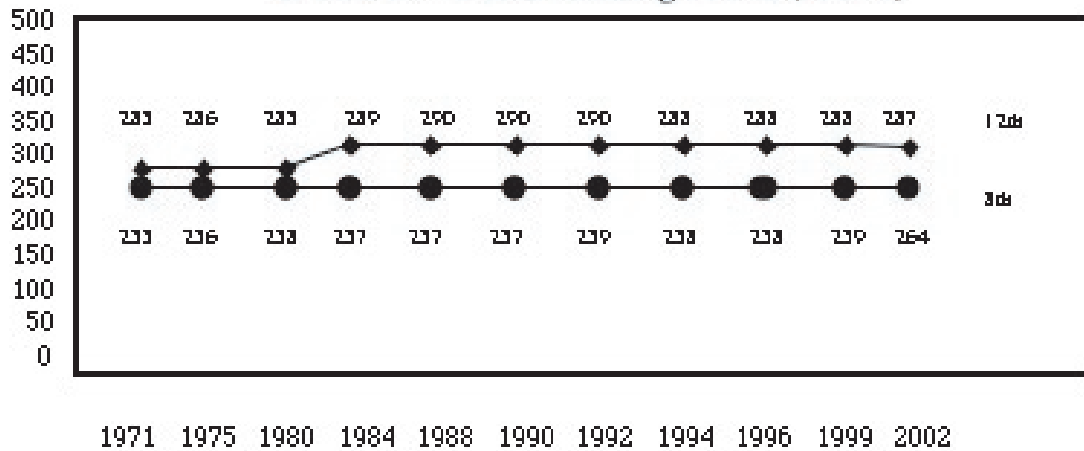
However we need to recognize that many adolescents have short-term needs. Only 40 % of all high school students can read well enough to comprehend their textbooks. The reading skill deficits of these students must be addressed in high school. Without intervention, millions of adolescents will have their futures largely foreclosed because they will lack the skills needed for the workplace, for further education or to take their place as citizens and heads of household. No child or *adolescent* can be left behind in the quest for literacy, equal opportunity, and a future with promise.

Over the past decade, there has been a significant investment made in understanding how people learn to read and in how to teach reading and related skills. Most of that attention has been focused on pre school and the primary grades, not adolescents. However, effective reading instruction for students in pre school and the primary grades may provide a viable blue print for teaching adolescents how to improve their reading proficiency. For example, the key components of reading instruction found effective for younger students (word analysis, fluency, comprehension) seem appropriate for adolescents when developmentally modified for this population.

According to data from the National Assessment of Educational Progress Reading Report Card, adolescents continue to read at levels that indicate limited growth in reading proficiency (NAEP, 2002). The trend data in Table 1 indicates that both 8th and 12th grade students “plateau” in reading skills with the average scores in the low proficient range. Twenty-three percent of these students read at the “below basic level.” Overall, we still have flat line reading scores indicating little growth. Thus, despite some slight improvement in reading proficiency over the past three decades, many adolescents are not attaining high proficiency or advanced reading skills necessary for success in high school and an information-based economy.

The challenge before local, state, and fed-

Table 1
8th and 12th Grade Reading Scores (NAEP)



eral leaders is to change this flat profile of literacy outcomes for adolescents. The problem, in part, exists because teaching literacy skills to the most underprepared adolescents is *not* a major priority for most high schools. Students' poor achievement in reading, writing, and speaking are often ignored as students are passed from grade to grade and taught in less than rigorous classes. Fortunately, some answers are currently available to help teachers and administrators in search of solutions to adolescent illiteracy. However, there are many perplexing problems remaining for which answers must be found. One of the most significant educational problems in our country is the number of adolescents who lack sufficient literacy skills to benefit from a rigorous high school education to say nothing of being unable to compete in the job market following school. Educational leaders must carefully craft solutions that are powerful and workable within the constraints and realities of secondary schools.

Meeting the challenge of adolescents with poor reading skills in high school is the focus of this article. Topics to be discussed included: defining reading literacy, the need for high school reading instruction, outcomes of poor reading proficiency, and promising instructional practices

DEFINING LITERACY

Literacy has been defined as, "an individual's ability to use printed information to function in society, to achieve one's goals, and to develop one's knowledge and potential." (NALS, 1996). Literacy is neither a single skill suited to all types of texts nor a specific set of skills. Rather literacy is a set of ordered skills that can be used to accomplish diverse tasks. For example, in reading, individuals must possess the knowledge and skills to locate and use information from texts that include editorials, news stories, poems, and fiction. Additionally, literate adolescents must be able to locate and use information contained in job applications, payroll forms, transportation schedules, maps, tables, and graphs.

Reading literacy can be rated on an achievement continuum that includes Below Basic, Basic, Proficient, and Advanced levels. For example, grade 8 students at the Below Basic Level can identify two explicitly stated facts from an article and use text to recognize the definition of a specific term. Students at the Basic Level can recognize the central idea in an article, identify a story's theme, and provide specific text references to support a generalization. Students at the Proficient Level can use metaphor to interpret character and comprehend directions to com-

plete a document form. Those at the Advanced Level can explain thematic difference between poems and compare different descriptions to integrate character (NAEP, 2002).

In an effort to increase reading literacy, the nation has concentrated needed attention on beginning readers, but efforts to help high school students are lagging. Few high schools today have reading programs to instruct students in basic and advanced reading skills and strategies. Some older students struggle with the reading demands of high school because they didn't master essential skills at the elementary level. Others mastered basic skills in elementary school but failed to acquire the skills and strategies to read more complicated material found in high school. Some students did not attain reading fluency or learn various reading comprehension strategies that advanced reading requires. These advanced strategies include summarization, making generalizations, synthesizing information, or monitoring understanding of the material. Many high school students are expected to learn reading strategies independently when in fact they need explicit

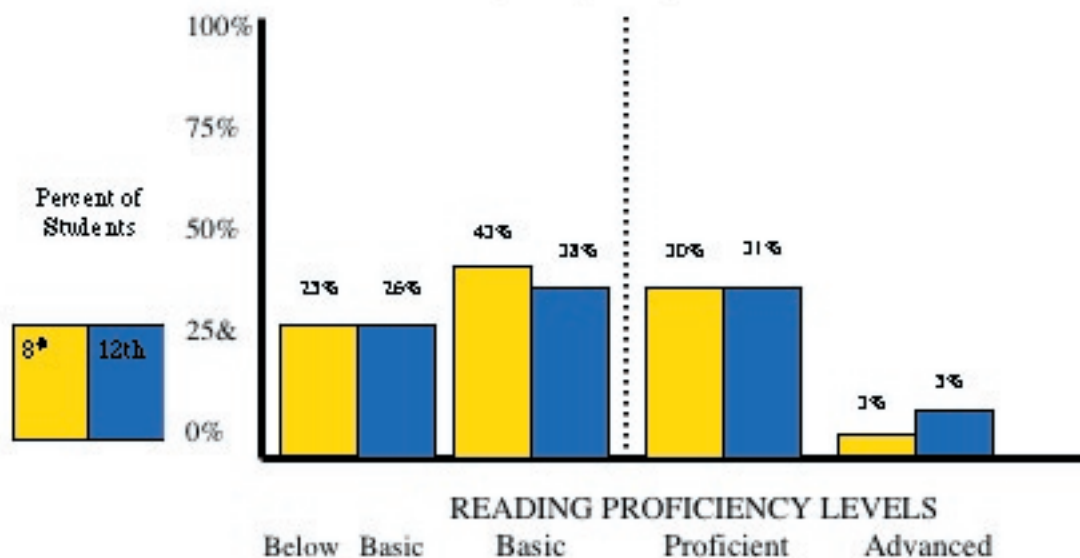
instruction before they master advanced reading strategies. This is particularly true for students with learning disabilities. According to Richard Vacca,

"We're seduced by this notion that if we could just teach the basics by 4th grade, kids would be able to handle the complex demands of literacy that are required of middle and high school students. And that's just not going to happen."

Failure to address the poor reading performance of high school students is evident in reading assessment data. The results from the 2002 NAEP reading assessment indicate that many of the nation's 8th and 12th graders perform at levels well below the proficient level (see Table 2).

According to information from NAEP, 68% of 8th grade students and 64% of 12th grade students fail to attain the level of proficient reader, a goal set by the National Assessment Governing Board (This level is represented by the dotted line in Table 2). In fact, significant numbers of these students have yet to attain the level of

Table 2
Percent of 8th and 12th Grade Students at Each Reading Achievement Level
(NAEP, 2002)



basic reader.

In Table 3, student performance by ethnic group is shown. Average mean scores demonstrate the variability in reading performance of the various ethnic groups. For example, while Asian/Pacific Islander 8th grade students mean performance was close to the Proficiency Level minimum score of 281 (see dotted line in Table 3), the average mean scores for American Indian, Black, and Hispanic students were right at the lowest point of the basic level. Clearly, many students entering high school are not reading at the recommended level of proficiency thought to be necessary for success in high school and beyond.

Internationally, the challenge is similar. On the Programme for International Student Assessment (PISA) reading sub test, more American adolescents score at the lowest level than adolescents from many other countries. Specifically, on the 2001 PISA Assessment, 18% of American students scored at the lowest level and do not progress beyond proficiency in

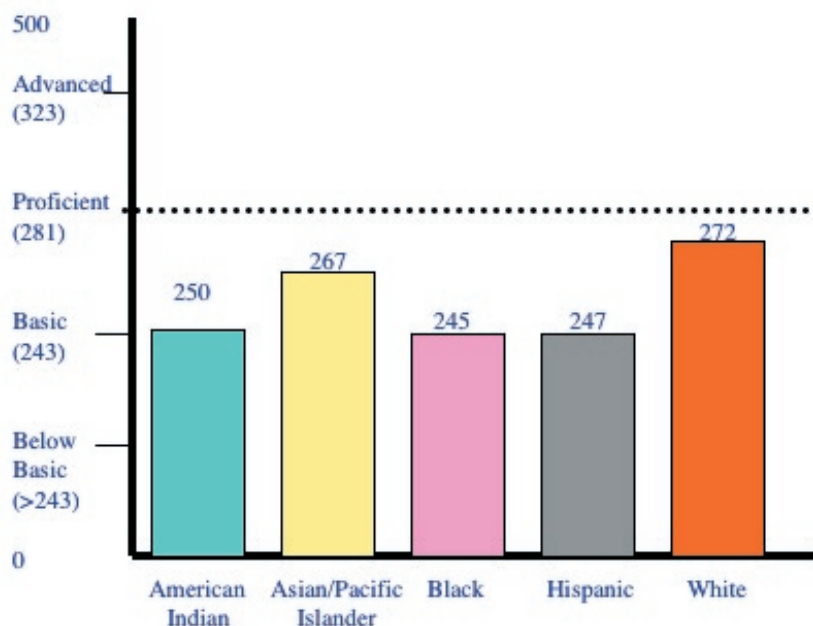
the simplest of reading tasks (Organisation for Economic Co-Operation and Development). In short, U.S. 15-year olds are performing at the cross national “average.” However, many are way below average.

When reading problems are not addressed in adolescent students, the consequences can be severe. Reading problems lead to failure in high school, which in turn may lead to many students giving up on education altogether. While progress was made during the 1970s and 1980s in reducing high school dropout rates, these rates have remained steady during the 1990s. The overall effect of the dropout rate is that some 4 million adolescents have dropped out of school during the past decade.

Portrait of High School Dropouts 2000

- Each year 4.4% or 383,000 students in grades 10-12 leave school without graduating.
- The dropout rate for students living in poverty is six times higher than that of their

Table 3
Reading Skill Level for 8th Grade Student Ethnic Groups
Average Mean Scores from the 2002 NAEP



peers who aren't poor.

- The drop out rate for minority students is between two and four times higher than that of white adolescents.
- In 2000, the proportion of the population that did not complete high school and was no longer enrolled in high school varied according to racial/ethnic groups. Specifically, 3.8% of Asian/Pacific Islander, 27.8% of Hispanic, 13.1% of Black, and 6.9% of White population groups had not completed and were not enrolled in high school.

Because 43% of today's workforce have not graduated from high school, the impact of adolescent and adult illiteracy on the U. S. economy is enormous. Losses in business and industry attributable to basic skill deficiencies in workers run into hundreds of millions of dollars annually because of low productivity, errors, and accidents. The U. S. Department of Labor estimates that 60% of unemployed workers lack the basic skills necessary to be trained for high-tech jobs in today's economy. The National Adult Literacy Survey (NALS, 1993) indicated that about 22% of adults were performing at Level 1, the lowest of five literacy levels.

The ramifications of illiteracy in the lives of adolescents are enormous and often devastating. First and foremost, poor literacy skills lead to frustration, embarrassment, a loss of self-esteem, a sense of hopelessness, and a longing for a "way out." Often the way out takes the form of delinquency – 85% of all juvenile offenders have reading problems,

The U.S. economy is changing rapidly in ways that may have negative consequences for workers who are deficient in reading skills. For example, today employers desire employees who: (1) read and do math at the ninth-grade level or higher, (2) can solve semi-structured problems, (3) communicate effectively, (4) work in groups with persons of various backgrounds, and (5) use personal computers to carry out tasks like word processing. Reading proficiency

is foundational to these employment competencies.

IMPROVING LITERACY INSTRUCTION IN HIGH SCHOOL

The demands placed on students in today's high schools are significant. For those students who lack basic literacy skills, these demands may be insurmountable. High school students are expected to read and analyze large amounts of printed information, express themselves in writing, and solve multiple-step problems with limited assistance from teachers. And, in light of the standards-based reform movement, successfully pass state assessment exams. These demands steadily increase and become more complex as students move from the 9th to the 12th grade. Hence, given that reading performance plateaus during their high school years (see Table 1), it is clear that the "performance gap" between these students' abilities and what they are expected to do widens. For some students, the gap is so big and the sense of hopelessness so great, they make the choice to drop out of school altogether.

Adolescents who lack basic literacy skills need intensive, focused, sustained instruction to help them catch up with their peers. But high schools are generally not structured nor have teachers been prepared to provide this kind of instruction. For example,

- High school English teachers, along with other teachers for the most part, are not trained to provide basic literacy instruction, nor do they see this as their role. They often share the conventional view that students should have been taught how to read in the earlier grades.
- High schools do not lend themselves to well-coordinated instruction across subject areas. This reality makes it difficult for teachers to provide intense, sustained, and focused instruction across the school day.
- There has not been broad-scale dissemi-

nation and preparation of teachers to use existing instructional practices that are scientifically based.

- Traditionally, the role of high school teachers has been to teach subject matter content (e.g., history, science, etc.). Preparing students to pass subject matter portions of state examinations reinforce this role. Hence, many teachers take the position that basic literacy instruction for struggling adolescents is a very complex undertaking for which they have not been prepared.
- Adolescents with literacy problems often lack the motivation, commitment, or belief that more instruction will make a difference in their performance. Because their schooling history has often eroded their self-confidence, they typically are reluctant to put forth the effort necessary turn things around.

To bring about dramatic changes in the state of adolescent literacy in this country, significant changes will be required in (a) how high school teachers and administrators see their role in teaching literacy, and (b) how basic literacy skills are taught as a part of the high school curriculum. Because of the broad array of student needs and the complexity of the problems presented by adolescents with poor literacy skills, no single program or approach can meet the needs of all. Thus, the best high school literacy programs are ones that consider both the unique needs of students with literacy problems and the realities of secondary schools.

Some students will need more individualized, explicit, intensive instruction of basic reading skills, while other students will need opportunities to practice fluency and comprehension skills within the context of their regular classes. Others might need extended day tutoring in before and after school achievement centers. In short, it is important to meet students where they are in their literacy development (Hock, Schumaker, & Deshler, 1999). Ehren and Lenz (2002) have developed The Content Literacy

Continuum (CLC) at the University of Kansas Center for Research in Learning. The CLC describes five levels of literacy support that should be in place in every secondary school.

The five different levels in this continuum emphasize how important it is to infuse literacy instruction throughout the high school curriculum *and* that a host of high school teachers with different types of expertise will be required to successfully address the broad array of needs presented by adolescents. Additionally, since the problems of adolescents with literacy problems are so significant, intervention outside of the school day is warranted. Hence, high schools should consider the important role that before and after school tutoring programs to support services provided across the Content Literacy Continuum. The key outcome associated with the Content Literacy Continuum is that students will attain appropriate achievement standards on state assessment tests and demonstrate real-world content literacy.

Level 1: Ensuring mastery of critical content in all subject area classes. Adolescents with poor literacy skills typically have great difficulty understanding most of the curriculum taught by their subject matter teachers during class – thus, they don't acquire the core knowledge expected of all high school students. It is important that all subject matter teachers use teaching aids and devices that will help students better understand and remember the content they are teaching. The use of such tools as graphic organizers, prompted outlines, structured reviews, guided discussions and other instructional tactics that will modify and enhance the curriculum content in ways that promote its understanding and mastery have been shown to greatly enhance student performance. These modifications represent a teacher's first response to meeting the needs of students who are struggling within content instruction. Although Level 1 interventions are designed to help those students with limited levels of literacy, they also must be designed such that their use benefits

all of the students in an academically diverse class.

An example of this is the use of a “unit organizer” to help students understand potentially confusing and complex subject matter being covered in a unit of instruction. This organizer displays the main topics and the relationship of these topics to each other and other units being studied in the course. By carefully configuring the unit organizer to display core concepts and important vocabulary and then having students regularly use this organizer for studying material from the unit, the outcomes of students with literacy problems on unit tests improve considerably.

Level 2: Weaving learning strategies within rigorous general education classes. When Level 1 interventions are insufficient to impact the performance of students with literacy problems in a classroom, teachers must consider instructional methods at the next point on the intervention continuum, Level 2. Here teachers incorporate instruction on selected learning strategies into their classes. Students with literacy problems often lack the necessary learning strategies that help them understand and remember the information being taught (e.g., how to ask questions of themselves to check their understanding of what is being taught or how to use memory strategies to remember critical information for a test, etc.). On an ongoing basis, while teaching subject matter material, teachers look for opportunities to point out to students particular strategies that would help them learn the information being taught. It is not enough, however, for teachers to merely tell students about a strategy that would be helpful for them to use; it is important that they explain how to use the strategy, model its use, and then require students to use the strategy in relation to their content assignments. In short, the purpose of embedded strategy instruction is to teach the students “how to learn” the subject matter material. Teachers can incorporate into their subject matter classes strategies for acquiring, remem-

bering, and expressing course information. By teaching students strategies that are directly relevant to the demands of their course, they are shifting the instructional emphasis, in part, from just learning course content to acquiring the underlying processes to enable them to independently understand and remember the content.

An example of how a general education teacher might incorporate learning strategy instruction into ongoing class activities is as follows. At the beginning of an academic year, a history teacher might explain to the class that being able to read and paraphrase written historical information is important because paraphrasing is required to write reports, answer questions, and discuss information in class. The teacher would then share the specific steps involved in paraphrasing content reading materials and model how to actually paraphrase historical information to complete different types of learning tasks. Class activities and assignments would, in turn, be structured to require students to paraphrase text and use the paraphrased information. The teacher would expect students to use the newly learned strategy in a host of naturally occurring situations within the course and would provide feedback on student work.

Level 3: Supporting mastery of learning strategies for targeted students. Some students who lack literacy skills have great difficulty mastering learning strategy within the classroom as presented in Level 2. The instructional conditions are not conducive to their learning (that is, the large numbers of students, little time for individual feedback, limited opportunity to ask questions for clarification, etc.), Level 3 Interventions may be necessary. In these interventions, students with literacy problems receive specialized, intensive instruction from someone other than the subject matter teacher (e.g., a special education teacher, a study-skills teacher, a resource room teacher). Continuing with the example cited above for the Level 2 Interventions, if the history teacher notices that some student(s) in the class are struggling with

mastering paraphrasing, support personnel (e.g., the special education teacher) would be asked to provide much more explicit, intensive, and systematic instruction in the strategy. An explicit instructional sequence would be followed that ensures student understanding of each step of the strategy, opportunities to practice the strategy in materials that are at the appropriate instructional reading levels, provision of elaborated feedback after each practice attempt, and teaching students to generalize the strategy to a broad array of learning tasks and materials. Such intensive instruction would be provided until the student gains the necessary confidence and masters the strategy at a level of fluency. At such time, the students would apply the newly mastered strategy to assignments in the general education classroom.

Level 4: Developing intensive instructional options for students who lack foundational skills. In nearly every high school there is a small group of students who cannot respond adequately to the intensive strategy instruction provided in Level 3 interventions. For these students, teachers need to consider interventions at Levels 4 and 5 on the continuum. While the numbers of students who require interventions at these levels are relatively small in most school systems, educators need to be aware that these students exist and require a type of instruction that is often not available to them. These are students who have severe learning disabilities, who have specific underlying language disorders in linguistic, metalinguistic, and metacognitive areas, who are English-as-a-second-language learners, or who have had prolonged histories of moving from one school to another. As a result, they may lack many of the foundational skills required for advanced literacy.

Students receiving Level 4 Interventions learn content literacy skills and strategies through specialized, direct, and intensive instruction in listening, speaking, reading, and writing skills. Reading specialists and special education teachers work together at this level to

develop intensive and coordinated instructional experiences designed to address severe literacy deficits. For example, they may implement an intensive reading program for those students who are reading at the first- through third-grade levels. These professionals may also assist content teachers in making appropriate modifications in content instruction to accommodate severe literacy deficits.

Level 5: Developing intensive clinical options for language intervention. In Level 5 Interventions, students with underlying language disorders learn linguistic, metalinguistic, and metacognitive foundational skills they need to acquire the necessary content skills and strategies. Generally, at this level, speech pathologists deliver one-on-one or small-group curriculum-relevant language therapy in collaboration with other support personnel teaching literacy skills. They also assist content teachers in making appropriate modifications in content instruction to accommodate severe language disorders.

Before & After School Supports: Adolescents with literacy problems often need additional support and opportunities to practice learning newly learned literacy skills. Before and after school tutoring programs can be an effective component to an overall literacy program. When tutoring programs are designed to teach students specific skills in how to learn as well as content knowledge, student outcomes increase. An example of this is the research based *Strategic Tutoring* program that teaches adolescents core literacy skills needed to complete high school assignments *as well as* the associated learning strategies that helps students learn independently and stay abreast of class assignments. In order to be effective, before and after school tutoring programs must be well organized and research based with the major goal being the improvement of students overall literacy skills.

In summary, current evidence indicates that the following factors are related to improving outcomes for adolescents with poor literacy

skills:

- The infusion of literacy instruction in all aspects of the high school curriculum.
- The involvement of all secondary teachers in making literacy instruction a top priority.
- Strong administrative leadership to ensure optimal conditions for literacy sound literacy instruction.
- The availability of broad continuum of literacy instruction including provisions for intensive, small group or one-on-one literacy instruction for those students most deficient in literacy skills.
- The use of research-based instructional practices.

SIGNS OF PROGRESS

Research demonstrating the efficacy of reading interventions for adolescents with reading deficits is limited. However, there are some promising interventions that warrant attention. Research supports teaching students strategies for reading and monitoring their own thinking as they complete reading tasks. When the instructional practices associated with strategy instruction are adopted, adolescent reading performance improves significantly. For example, Reciprocal Teaching, developed and validated by Ann Brown and Annemarie Palincsar, was shown to be effective in improving reading comprehension with middle school students. This was particularly true for those who struggle with learning. Reciprocal teaching significantly increased students' ability to use reading strategies and to attain higher scores on standardized comprehension measures.

Reciprocal teaching has content class teachers teaching students four specific reading strategies: generating questions as you read, predicting what will happen next, summarizing what's been read, and clarifying difficult material. Teachers engage students in extended dialog and discussion as a method to teach these strategies.

Another promising intervention is Reading is FAME. Mary Curtis and Ann Marie Longo created this program at the Boys Town Reading Center. The program was developed specifically for older adolescents with reading problems. The Reading is FAME curriculum is a small-group direct instruction model that places students in one of four developmental reading courses. Each course lasts about 16 weeks. Students are taught reading skills and strategies through modeling, teacher guided student practice, and independent practice with feedback. Average gains after 36 weeks of instruction have been more than two grade levels. Generally, students gain one year of reading skill for every semester of instruction.

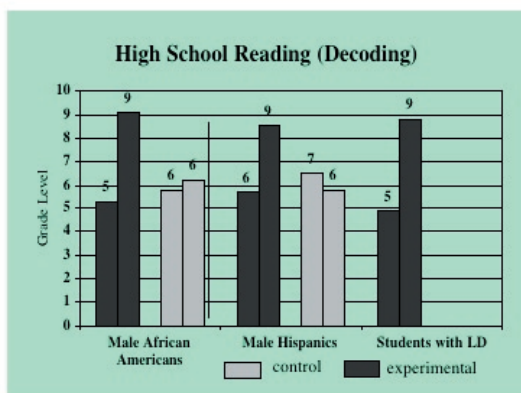
Scientifically-based Instruction Can Work! – An Example

The Situation: In the early 1990s, the LD teachers at an inner city high school in Michigan began teaching several research-based reading strategies to students with LD in the resource room. About seven years ago, in preparing for a North Central Accreditation visit, the data from this effort came to the attention of the school principal and the reading target-area committee. They were thrilled to see the tremendous gains that the students with LD were making but were frustrated by the fact that such large numbers of at-risk students in this high school (not formally classified as LD) were failing miserably because of poor reading skills. The committee decided to design a program that could be made available to all entering freshman who were doing poorly in reading. During the first NCA Outcomes Accreditation Cycle, all ninth-grade students in the targeted high school were pretested. Students who earned scores two or more years below grade level were targeted for instruction. The program was so successful that the teachers decided to set up an experiment to demonstrate the program's success by comparing the performance of all of the students in the

next year's freshman class who were reading at least two years below grade level with students in a comparison high school (matched on grade, gender, pretest score, and race).

Instructional Program: The designated students at the targeted high school received 50 minutes of intensive instruction on a daily basis (every day of the week) on a research-based reading program that is the Strategic Instruction Model (SIM). SIM was developed and extensively validated by researchers at the University of Kansas Center for Research on Learning. Students were taught in small groups (one teacher to four or five students). They were pulled-out of their English classes for this instruction. The instruction lasted three to eight weeks, depending on how many sessions each student required to reach mastery. After a student had mastered the strategy, he or she returned to instruction in the English class.

Word Identification Strategy (Michigan)



Results: The graph shows the students' grade-level scores on the pretest and the posttest. The darkly shaded bars depict the mean scores on pre and post tests for the students enrolled at the experimental high school. The lightly shaded bars show the mean scores on pre and post tests for the students at the comparison school. Male African-Americans, male Hispanics, and students with learning disabilities at the experimental high school made mean gains of about three grade levels with regard to decoding while

they were in the program. Similar students in the comparison high school made either small gains or no gains on the average.

WHAT NEXT ?

Every year thousands of adolescents arrive in high school totally unprepared for the curriculum and literacy demands they encounter. Strategies are needed *immediately* to address this pressing concern – these students can't wait for "more research" or another round of school reform initiatives to take hold. Federal, state, and local authorities should consider the following short-term actions:

- Identify current practices that are being successfully used to improve literacy skills in high schools throughout the country. These practices and the surrounding conditions that have contributed to their success should be described in detail for other schools to emulate.
- Establish demonstration sites to showcase those programs and practices that produce significant outcomes for adolescents with literacy problems. These sites can serve as examples to others who want to immediately implement successful practices.
- Support professional development programs that teach administrators and teachers how to implement *scientifically based practices*. While there are still many unanswered questions surrounding adolescent literacy, there is much that we already know. Resources should only be devoted to those professional development programs that prepare teachers to use practices that have been validated and shown to produce significant outcomes.
- Change initial teacher preparation programs to include increased attention on literacy instruction. Currently, many teacher preservice programs include almost no training for prospective high school teachers on how to deal with literacy problems in the adolescents they will be teaching.

Additional strategies that should be a part of long-term plans to eradicate adolescent illiteracy include:

- Support the adoption and implementation of those promising school reform models that have emerged within the past decade that provide a blueprint for changing the overall structure of high schools that will create an overall environment that is conducive to literacy development for *all* students.
- Make research on adolescent literacy as high a priority in this decade as early reading was during the 1990s. There is a great deal that we must learn about how to more effectively teach underprepared adolescents to read, write, and speak. In the absence of these answers, many of the problems that under prepared adolescents present will not be addressed.
- Establish mechanisms and expectations for various agencies (e.g., National Science Foundation, Office of Educational Research Initiatives and Services, National Institute of Child Health and Human Development, Office of Special Education Rehabilitation Services)) to collaborate to address the complex issues surrounding adolescent literacy – this problem is too big and complex for any one agency to tackle.
- Encourage federal education agencies to support significant *and* sustained connections between researchers, practitioners, and policy makers to guide both the knowledge production and knowledge utilization enterprise on questions surrounding adolescent literacy.
- Support research and development that is sensitive to the contextual realities of secondary schools and the unique aspects of adolescent development.
- Insist that R & D efforts on literacy interventions address issues of scalability and sustainability. It is critical for any “prom-

ising instructional practice” not just to be validated through research but to be shown to work *on a large-scale, sustainable basis*. Unless this happens, only the lives of very few adolescents will be affected.

CONCLUSION

While the No Child Left Behind Act holds great promise for reforming America’s schools, its effects will not be realized for many years. Hopefully, over time, it will ensure that *no* adolescent arrives at high school ill prepared in foundational literacy skills. Likewise, the effects of the significant work done on early reading during the past decade by NICHD will not impact millions of adolescents who are no longer in primary grades where they can benefit from this instruction. The reality is that 15 year-olds struggling with reading typically pose different and very unique challenges than 5 year-olds just beginning to read. Hence, unique solutions are called for. In short, solutions relevant to adolescent development and appropriate for implementation within high school settings are desperately needed.

Given the more rigorous academic standards being established throughout the states and the current low academic performance of a significant number of adolescents, the crisis in adolescent literacy is real and immediate. Our response to this challenge must be intensive, targeted, and comprehensive if we are to bring about large-scale change. Efforts to close the gap between expectations and current competencies must be a high priority if we are to prepare adolescents to successfully participate and respond to the increasingly challenging demands of society and the work place.

“Nothing less than a concerted commitment will be needed to end the chronic state of low literacy with its accompanying high levels of school failure, lower worker productivity, crime and welfare.”

Daniel Wagner, 2001

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