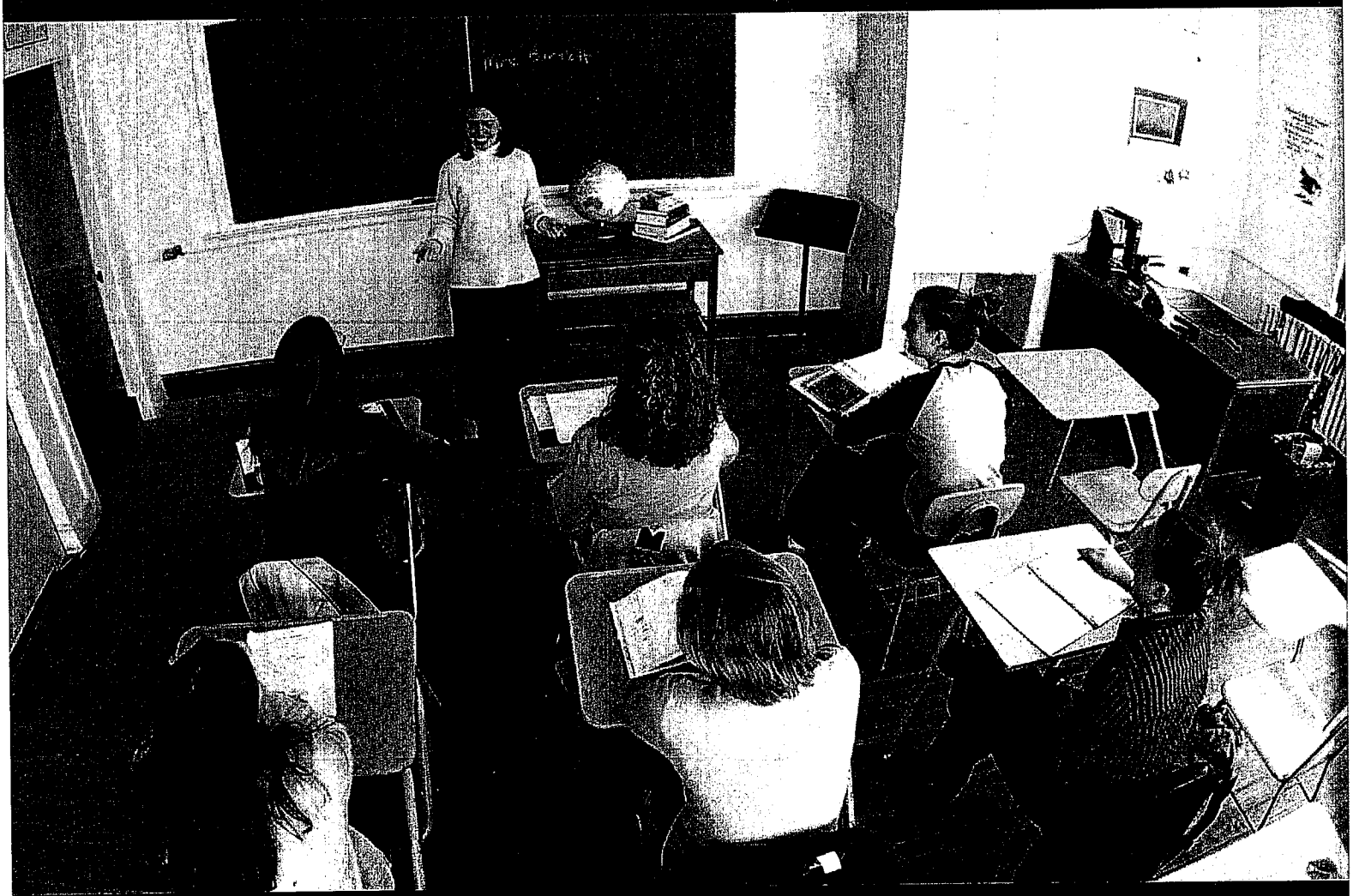
IMPROVING LITERACY INSTRUCTION IN MIDDLE AND HIGH SCHOOLS

A Guide for Principals



CENTER ON INSTRUCTION

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A Guide for Principals

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CENTER ON
INSTRUCTION

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TABLE OF CONTENTS

1 INTRODUCTION

3 THINKING ABOUT LITERACY GOALS

5 ELEMENTS OF INSTRUCTION REQUIRED TO MEET THESE GOALS

9 CRITICAL ELEMENTS OF A SCHOOL-LEVEL LITERACY ACTION PLAN

21 CONCLUDING COMMENTS

23 RECOMMENDATIONS FOR ADDITIONAL READING

INTRODUCTION

If your goal is to improve reading outcomes for students in your school, this guide can prompt your thinking about the most critical changes that must be made. It does not contain all the necessary information, but it will refer you to readings in specific areas to enrich your knowledge. Think of this document as a "quick start" guide for a school-level reading initiative. It can point you in the right direction, but it can only provide a taste of the knowledge you will need to be a successful literacy leader in your school. We encourage you to become familiar with the ideas in the guide, then embark on a systematic study to prepare fully for this challenging and rewarding task. This guide is based on scientific research on reading and reading instruction and on studies of successful schools and interviews with successful principals.

The guide is written for principals of both middle and high schools. We acknowledge the often considerable differences in structure and organization between the two educational settings, but note that research suggests strong similarities in the essential requirements for high quality support of literacy growth at both educational levels. Student characteristics in middle and high school can also differ substantially, but again, the essential instructional challenges for supporting literacy growth in these two student populations are highly similar. We have identified the essential elements of effective reading programs in both middle and high schools with the expectation that these guidelines will always need to be adapted to individual school and student circumstances.

Although the general topic of this guide is literacy improvement, its specific focus is reading. The word *literacy* encompasses many different forms of reading—and indeed, connotes more than reading skill alone. In this document, we focus on classroom and school-level elements to improve *academic literacy*, defined as the kind of reading skill students need to be successful in most content-area classrooms. This is also the type of reading skill assessed on state-level reading accountability examinations. Although writing is also an important aspect of literacy, this document focuses primarily on reading skills.

Reading proficiency at the middle and high school level is usually defined as the ability to understand and learn from grade-level text. Of course, this is a very complex skill itself, but its most essential elements involve:

- the ability to read text accurately and fluently;
- enough background knowledge and vocabulary to make sense of the content;
- knowledge and skill in using reading strategies that improve understanding or repair it when it breaks down;
- the ability to think and reason about the information and concepts in the text; and
- motivation to understand and learn from text.

In other words, reading proficiency in adolescents requires that students be able to identify the words on the page *accurately and fluently;* that they have enough *knowledge and thinking ability* to understand the words, sentences and paragraphs; and that they be *motivated and engaged* enough to use their knowledge and thinking ability to understand and learn from the text. We emphasize that motivation to understand and learn from text is a critical component of reading comprehension for middle and high school students. It takes real effort to understand the many textbooks and other forms of complex written materials students encounter in their study of literature, history, social studies, science, or mathematics. Unless students are appropriately engaged, they often do not fully apply the skills they have, nor will they be motivated to acquire additional skills and knowledge.

THINKING ABOUT LITERACY GOALS

Any initiative for improvement needs to be guided by clear goals. Given all that we currently know about the way reading skills develop during adolescence, as well as what we know about the demands for literacy once students leave school, literacy initiatives in middle and high school should focus on three goals.

1. ***Improve overall levels of reading proficiency.*** To succeed in the world after school, adolescents must leave high school with higher levels of reading proficiency than they are currently attaining.
2. ***Ensure that all students make at least expected yearly growth in reading ability each school year.*** Students who enter middle school reading at grade level need to learn many new skills and acquire extensive knowledge in order to meet grade-level standards at the end of high school.
3. ***Accelerate struggling readers' development.*** Instruction for struggling readers must produce substantially more than one year's growth in reading ability for each year of instruction. Unless struggling readers receive instruction this powerful for as long as they need it, their ability to learn from grade-level text will remain impaired.

ELEMENTS OF INSTRUCTION REQUIRED TO MEET THESE GOALS

There is almost universal agreement that both *content-area teachers* and *reading specialists* must be involved for schools to successfully meet the goals outlined above. Content-area teachers must help students develop the knowledge, reading strategies, and thinking skills to understand and learn from increasingly complex text. Reading specialists must provide intensive instruction that can skillfully address the wide range of struggling readers' needs. As one successful middle school principal explained,

> *Teachers use reading strategies in all their classes.... Science teachers have a tremendous science vocabulary program. Vocabulary development is embedded in the content across the curriculum in all classes. Social studies teachers directly teach reading strategies as part of social studies.*

A successful high school principal observed,

> *Reading instruction in the content area is expected of all of our teachers, whether it be [about] culinary [science] or industrial electricity. The reading coach has conducted professional development with all of our teachers on different reading strategies and on the importance of reading.*

Instruction in Content-Area Classes

Content-area teachers use many strategies to support their students' growth in academic literacy, but current research suggests that students' growth in literacy could be further enhanced by providing more effective instruction in the following six ways. This is not an exhaustive list of effective literacy-related practices for content-area teachers, but it identifies the research-based instructional strategies most frequently discussed in terms of improving all students' reading skills. They are:

1. ***Comprehension strategies.*** Instruction and supporting practice that improves the use of effective reading strategies before, during, and after reading. Comprehension strategies are behaviors students can consciously apply to improve their understanding and learning from text.
2. ***Discussion.*** Opportunities for deeper, more sustained discussion of content from text. Extended discussions of text can be facilitated by the teacher, or can occur as structured discussions among students in cooperative learning groups.
3. ***High standards.*** Setting and maintaining high standards for the level of text, conversation, questions, and vocabulary reflected in discussions and in reading and writing assignments.
4. ***Reading-writing connection.*** Strengthening the reading-writing connection to improve student opportunities to reflect on the meaning of text and receive feedback on their reflections.
5. ***Motivation and engagement.*** Creating more engaging and motivating classrooms, and interacting with students in a way that promotes internal motivation for reading. Students will learn to process text more deeply if their reading is relevant to their lives and they are pursuing meaningful learning goals in an atmosphere that supports their initiative and personal choice.
6. ***Content learning.*** Teaching content knowledge to ensure learning of the most essential concepts by all students, even those who struggle to read the textbook. Teachers should use instructional methods, such as graphic organizers or concept comparison routines, that deepen understanding and show students better ways of learning new content on their own.

While it is clear that content-area teachers cannot be expected to teach struggling readers basic reading skills, they can teach strategies, use appropriate instructional routines, lead and facilitate discussions, raise standards, and create engaging learning environments that help students improve their ability to comprehend text. In the words of another successful principal:

> *We stress with our content teachers, we are not expecting them to teach kids to read, but they must be able to recognize when kids can't read captions, figures, or make connections within sentences.*

We provide reading strategies to them in morning and planning period staff trainings.

Instruction for Struggling Readers

In addition to providing active and skillful literacy instruction by content-area teachers in their own disciplines, middle and high schools must also have the capacity to provide more intensive and targeted reading instruction to students reading below grade level. The three most important ideas to keep in mind when thinking about adolescent struggling readers are:

1. Whatever instruction they have had in the past has not been strong enough to help them meet grade-level expectations in reading;
2. They have probably not been doing very much reading for some time, and are likely to be very discouraged about being able to read well; and
3. They are a very diverse group who struggle to meet grade-level standards in reading for many different reasons.

These ideas suggest that the reading instruction struggling readers receive in your school must be not only significantly more powerful than the instruction they have received in the past, but also more engaging and supportive, if it is to be successful. Further, those who provide this instruction must be prepared to effectively teach a very broad range of skills and knowledge if they are to meet the needs of all students.

Although adolescent struggling readers vary a great deal in their instructional needs, it may be useful initially to think of these students as falling into two groups. One group (reading perhaps one to two years below grade level) has primary needs in the area of reading comprehension. They need powerful, supportive instruction in vocabulary and strategic reading skills, with supported reading experience to increase their fluency and engagement in thinking about meaning while they read. A few of these students may need help developing better strategies to identify some of the more complex, multisyllabic words they will encounter in text, but, for the most part, they need instruction focused on improving their ability to comprehend and learn from text.

The second group, usually smaller than the first, contains students with severe and pervasive reading difficulties. They face challenges extending into basic problems with reading accuracy (usually caused by weak phonics/word

analysis skills), as well as all of the other more complex reading problems involving weaknesses in content knowledge, thinking/reasoning skills, reading strategies, and vocabulary. These are the students who cannot easily recognize many of the words in grade-level text, and are unable to use word analysis strategies effectively to identify unfamiliar words. Their instructional needs are both broader and deeper than students in the first group.

In order to meet grade-level standards in reading, students in the first group will usually require an extended period of intensive instruction in vocabulary and reading comprehension strategies, coupled with supported practice in reading, writing about, and discussing the meaning of text. These students can also profit from supportive instruction from their content-area teachers. Students in the second group will require a longer period of more intensive instruction (i.e., more instructional time, smaller instructional groups), coupling guidance in the use of basic word analysis/word identification strategies with even stronger instruction to support reading comprehension. A middle school principal who has seen substantial improvement in student reading scores over the last several years described the importance of effective interventions:

> *The contribution of our intensive reading teachers is the most essential thing that contributes to our reading outcomes. This is our second year of our double block schedule (90 minutes). We have six intensive reading teachers for our [lowest performing] students.*

Of course, what we have just described is undoubtedly an oversimplification of the actual extent of diversity among struggling readers in most middle and high schools. There may also be some students, for example, with specific language disorders that may need to be addressed in order to improve reading, or with unusual combinations of skills and knowledge that will require individually adapted programs. However, to begin addressing the problems of struggling readers in most secondary schools, principals should be aware that they will ultimately need to develop a system of support that includes at least the two tiers described above. One key to successful work with struggling readers is to frequently and carefully monitor their progress in their initial placement so that instruction can be adjusted to meet their needs if it is not successful.

CRITICAL ELEMENTS OF A SCHOOL-LEVEL LITERACY ACTION PLAN

The next section is the core of this guide. It outlines the elements of school-level planning and leadership seen in most middle and high schools that are successfully improving reading outcomes for their students. It provides guidance in three areas:

1. Leadership Activities
2. Using Data to Guide Instruction
3. Appropriate and Effective Instructional Materials

Leadership Activities

In one of the documents recommended for further reading at the end of this guide, Dr. Melvina Phillips, a former principal herself, says, "Strong leadership from both administrators and teachers is an essential building block in constructing a successful literacy program, but the role played by the principal is key to determining success or failure of the program" (*Creating a Culture of Literacy,* p. 7). Leadership, of course, must start with personal commitment, a deeply felt urgency about the need for improvement. When accompanied by leadership skills and knowledge, this commitment can lead to real increases in a school's capacity to offer effective literacy instruction to all students. An outline of activities commonly observed in schools that have launched and sustained effective literacy efforts follows.

- ***Establishing a school literacy leadership team.*** Since the success of any schoolwide initiative depends on securing teachers' support from the beginning, this team is composed of carefully selected content-area teachers, reading specialists, administrators, and usually the school media specialist. The team works with the principal to identify current strengths and weaknesses in the school's literacy efforts, priorities for improvement, resources that can be applied, and strategies to support change. They study together, plan together, and lead together. This group gives the principal vital assistance in initiating and supporting all the improvements that eventually produce a school's strong "culture of literacy." It should be formed very early as a key element in any literacy leadership plan.

- ***Staffing plan to meet the needs of all students.*** An important key to success in any organization is having the right people in the right places. A key staffing challenge for literacy initiatives is finding the right people to provide intervention support for struggling readers. This usually involves thinking in new ways about school staffing resources, and frequently involves offering professional development and acquiring better instructional materials to support reading intervention classes. Comments about this from two successful principals are:

  > *When I came here, there were a few reading teachers in the Language Arts department. I have created a Reading Department separate from Language Arts.*
  >
  > *We have experienced, trained teachers working with [our struggling readers], as well as two National Board Certified teachers that teach reading.*

- ***Scheduling to meet the needs of all students.*** The principal, along with the literacy leadership team, needs to examine the school schedule to find time to meet critical literacy learning needs. Most successful schools have arranged to provide additional instructional time for students who are reading below grade level. Schools do this in a variety of creative ways, including extended instructional blocks during the day, before and after-school sessions, and summer programs. Scheduling time for reading intervention classes in high schools may pose special challenges in some states because of course descriptions and the need to satisfy requirements for Carnegie units. Where this is the case, state-level policy changes may be required before high schools have sufficient scheduling flexibility to meet the needs of their most struggling readers. In addition to scheduling time for interventions, successful schools also find ways to emphasize reading throughout the school day for all their students, by adding book clubs, reading activities during lunchtime, or literacy-related homeroom activities.

- ***Professional development plan.*** An important key to improved teaching is ongoing, job-embedded professional development. This is accomplished in a variety of ways—hiring reading coaches, establishing grade-level literacy study groups, providing demonstration teaching, providing frequent mini-professional developments on specific strategies presented by

teachers or coaches, and attending professional meetings. Professional development to support more effective reading instruction should be an integral part of the school's overall professional development plan, and the principal needs to ensure that it fits well within other school priorities. One leadership key in professional development is the principal's participation in as many professional development opportunities as possible. In the words of two more successful principals:

> *I participate in the study groups. If I'm not involved, they [teachers] have room to criticize. I don't just go so they won't criticize. I go because first of all it is very interesting to me. I like to know what kinds of things my reading leadership team is studying. I want to know how and why it works. [I go] so I'm not just whistling "Dixie" when I go into the classroom.*
>
> *The most essential things going on at my school that contribute to strong reading outcomes would be our reading coach, who provides reading strategies, inservice activities, and materials to the entire staff, the restructuring of our classes, use of data analysis ... and teacher-implemented activities.*

- ***Principal oversight and supervision activities.*** There is an old adage many successful principals quote: "If you expect it, then you need to inspect it." Many successful principals, assistant principals, and other leaders visit all classrooms, including content-area and intervention classrooms, regularly. They have usually discussed beforehand with the teachers the kinds of things they expect to see in these classroom visits, and teachers have received professional development in these areas as well. As one middle school principal said,

> *I have to be walking the walk, in classrooms, conferencing with teachers and asking them specifically, "What are you doing to help students with reading? What are you doing to increase literacy of all types in your classroom?" If I walk in a classroom and it is naked, I will talk to the teacher and say "Where is your vocabulary wall? Teachers must use their environments to enhance students' experiences. Where are your reading materials?" I provide funds for purchase of content-oriented materials that give different reading experiences for children.*

And a particularly successful high school principal noted:

> *I must be a part of the team; the principal must know what's going on, be familiar with the reading programs, the strategies, and convey the fact that I am checking on implementation. The principal must be the instructional leader and set the tone. I am the one leading the staff development, leading the data meetings; we meet collectively and I am in there with them.*

In most middle and high schools, the principal will need to share these oversight responsibilities with the school literacy leadership team or other administrative leaders identified by that team. Classroom observations are discussed in regular leadership team meetings and plans are developed to provide professional development, or other forms of teacher support, where needed.

- ***Sustaining implementation of the literacy plan.*** There is no question that improving literacy outcomes for adolescents in middle and high schools involves hard work. Students must read more and think more deeply about what they are reading. Teachers must add new skills to their teaching repertoire and find better ways to support student engagement in learning. Teaching struggling readers in a way that accelerates their reading development requires careful planning, disciplined and creative teaching, and relentless focus to meet the needs of every child. Finally, the change process itself is a difficult leadership challenge, and requires a thoughtful and energetic response from leaders. This is all by way of saying that part of the role of the principal and the literacy leadership team is to identify ways to regularly celebrate and reward student, teacher, and school-level accomplishments. Successful schools find ways to recognize and reward all those who are contributing to successful literacy efforts. This can be the truly "fun part" of the job.

Using Data to Guide Instruction

This topic could easily have been included as one of the points in the previous list of leadership activities, but because it is so important, and because it involves activities that many middle and high schools are just beginning to implement, it is a separate part of this section. However, we stress that

establishing and overseeing an effective plan to collect and use student performance data to make instructional decisions in your school is as much a leadership responsibility as any activity included in the previous list.

What kind of reading assessments do you need?

The answer, of course, depends on what you need to know. Typically, planning effective instruction for all students requires two kinds of information: information to guide overall planning and resource allocation, and information to guide instruction for individual students. Information for planning and resource allocation answers such questions as:

- *What proportion of students are able to meet grade-level standards at the end of each grade?* A relatively low number signals the need for strong, general improvements in all aspects of literacy instruction, including perhaps finding ways to create more time for large numbers of students to improve their reading skills. End-of-year student performance data can also assist specific planning to meet needs for reading interventions in the following year.
- *Are there particular reading skills or standards that present special difficulties to students on the progress monitoring or year-end outcome tests?* This type of information can be helpful in planning a school-level professional development emphasis or an instructional focus calendar. One successful principal said:

  > *We try to be proactive in foreseeing areas in need of improvement or restructuring. As soon as [state assessment] scores come out, I meet with my team to review the data and we plan an instructional focus calendar immediately. Teams of teachers then come in the summer and preplan activities. We focus on developing an instructional calendar with biweekly assessments.*

- *Are the interventions provided to struggling readers strong enough to increase their ability to meet grade-level standards?* This information is required to determine whether interventions for struggling readers need to be strengthened or improved, which may involve allocating additional resources for interventions.

- *What proportion of students in each classroom and grade level are becoming more proficient readers as the year progresses?* Are there particular areas of difficulty for students in specific classrooms, or at particular grade levels? This type of information can be useful in planning extra support for individual teachers, such as pairing with a particularly strong teacher/mentor or working with the reading coach. Information about student progress during the year can also help grade-level teams as they consider ways to help students improve their performance on specific grade-level literacy standards.

Information to guide instruction for individual students answers such questions as:

- *At the beginning of the year, which students are at special risk of not being able to meet grade-level standards by the end of the year?* This information is useful for alerting teachers to students who may need special support in content-area classrooms, and for scheduling intervention classes for other students. Of course, some decisions must be made well before the school year begins, and data from previous years' performance can identify the need for extra intervention resources that must be supported in the school budget for the coming year.
- *Which students are making adequate progress, and which may need additional, or improved instructional support?* This information is essential to making important instructional adjustments or "mid-course corrections" for individual students, such as increasing instructional time, reducing instructional group size, or shifting an instructional approach, to increase the rate of learning for students who might otherwise continue to make inadequate progress during the year. Comments from a successful principal on this topic:

> *My assistant principals and I each work with a group of teachers. We go over data and come up with weak areas and work on developing instructional plans for their students. Everyone has to know where the school is and where the focus is. We put our focus calendar assessment in a data notebook containing the entire history of each student. Every two weeks we hit on some format of where we are and where we are going.*

- *What are students' individual reading strengths and weaknesses?* For struggling readers in particular, it is important to understand which aspects of reading may require special instruction and support. As indicated earlier, a critical distinction for many students reading below grade level involves the extent of their word-level reading difficulties: can they read grade-level text with reasonable accuracy and fluency? If not, they will need support in these areas that other students may not need.

Types of assessments commonly used in middle and high school

Given the important questions outlined above, principals need to understand and use information from at least four types of assessments:

1. *Formal outcome assessments.* Most states now require formal end-of-year outcome assessments in reading for all students. These tests typically assess students' ability to understand and think about the meaning of text in ways that are defined in the state literacy standards. Formal outcome assessments provide useful information about the proportion of students able to meet grade-level standards in reading, and, depending on the test, might also provide information about student performance on specific standards. In some cases, it is possible to compare students' performance across several years to determine whether instruction is sufficiently strong to maintain grade-level progress, and whether interventions are effectively raising overall levels of student performance from year to year.
2. *Formal or informal screening measures.* It is essential to have a reliable screening system at the beginning of the year to determine which students are in need of more intensive interventions and which may be expected to continue to make reading progress without additional support. Part of this "screening information" can be obtained from the prior year's outcome test, but many students will require additional assessment to plan appropriate instruction. If your school uses a published intervention program, such programs usually have placement tests that help plan initial instruction or place students in instructional groups once the need for intervention is determined. If your school does not use a published intervention program to provide support for struggling readers, a variety of both formal (standardized) and informal assessment procedures can be

used to determine instructional needs at the beginning of the year. For example, an experienced teacher can learn a great deal about a student's reading abilities by simply asking him or her to read a passage of grade-level text orally and summarize what he or she just read.

3. *Formal or informal progress monitoring assessments.* These assessments help determine whether students are making adequate progress in either content-area or reading intervention classes. The need for progress monitoring is particularly strong for students in intervention classes. Their progress in acquiring the skills and knowledge that are the focus of their interventions (i.e., reading accuracy, reading fluency, vocabulary, reading comprehension strategies) needs to be assessed regularly to determine if the intervention is effectively improving their reading skills. Many published intervention or supplemental reading programs provide periodic assessments that help to determine whether students are making adequate progress in the program.

   Some schools also administer "benchmark" progress monitoring tests to all their students several times a year. These assessments are keyed to the grade-level standards on their state accountability assessments and are used to identify students not currently receiving interventions who have fallen behind during the year, and who may need some special support in order to meet grade-level standards by the year's end. A number of test development companies are working to provide support in this area. Many districts have also developed their own "benchmark" assessments, given several times a year. This type of progress monitoring can also be accomplished informally if teachers are trained to construct assignments or tests that examine their students' ability to meet grade-level literacy standards throughout the year.

4. *Formal or informal diagnostic tests.* Most often, enough information is available from the previous year's outcome test and the screening system used at the beginning of the year to get started in instruction. Once instruction begins, skilled intervention teachers can usually "diagnose" a student's instructional needs through informal procedures, such as observing their responses to specific tasks, examining work products, or asking questions about their understanding or strategies. However, in some cases, students may have special difficulties that interfere

with their response to instruction and may require formal diagnostic assessment. A general rule of thumb is that formal, time-consuming diagnostic assessments should be given only when there is a need for specific information to guide instruction that cannot be obtained in some other, more efficient way. Lengthy diagnostic assessments should never be given to large groups of students as the first step in gathering information to guide instruction.

The need for some type of data management system. Using data effectively to make instructional decisions requires that it be available in a usable form to everyone who needs to see it—including the principal, the literacy leadership team, subject-area team leaders, and individual teachers. Schools are experimenting with a variety of data management systems, some of which are commercially available computer programs. Eventually, the most successful systems are likely to involve some type of computer support that allows teachers to enter data, but which can also accept "batch" data from other programs that automatically score different kinds of assessments. One of the first planning and discussion points for a school-level literacy team to consider is what type of data management system will provide effective and timely access to all the data necessary to plan instruction for all students.

Decision-making meetings. A universal feature of schools that are using data successfully to inform instruction is a regular pattern of meetings that bring leaders and teachers together to evaluate data and make decisions. Whether these are annual meetings to evaluate the results of end-of-year outcome assessments or beginning-of-year screening tests, or whether they are weekly or monthly meetings to evaluate individual student progress, all have a similar structure. Their critical elements are:

- *Attendance of all who are necessary to help make and follow up on decisions.* The principal may not be able to attend all of a school's data meetings, but some sort of regular principal attendance and participation in these meetings will greatly increase their effectiveness. Along with the literacy leadership team, the principal should regularly consider which meetings most require strong school-level leadership to be successful.
- *Systematic method for reviewing data.* Teachers should know ahead of time what types of data will be reviewed. It is helpful to have standard

forms or formats all teachers can use, so that data are considered in a consistent fashion.

- *Recording decisions and designating responsibility for follow-up.* As one strong principal pointed out, "You can have great data and make smart decisions, but if there is no follow-up, the meetings are essentially a waste of time."

As a final note, interviews with and observations of successful principals continually underline the fact that the principal's attitude toward data and his or her consistent use of data in evaluating instructional progress and instructional needs sets the tone for the whole school. Effective principals are knowledgeable about student data, and actively use it to guide instructional decisions at many different levels.

Appropriate and Effective Instructional Materials

Ensuring that teachers have useful, effective materials to support their instruction is the third major aspect of the principal's role addressed in this guide. Several successful principals commented on this aspect of their work:

> *I provide funds for purchase of content-oriented materials that give different reading experiences for students.*
>
> *Through contributions by the PTSA (Parent Teacher Student Association) and SAC (School Advisory Committee), we have been able to acquire classroom sets of nonfiction books to appeal to the varied interests of the students.*
>
> *We provide resources specific to the subject area. For example, there is not a variety of timely books available on computer technology, so we subscribe to 4 or 5 different magazines and use those as reading tools for reading in the content area.*

The largest expenditures for materials to enhance literacy outcomes fall into two categories: 1) books, magazines, and other reading material, and 2) instructional programs and materials.

Using books to enhance literacy instruction. One of the most important principles from the scientific study of reading is that students are more likely to read materials written at a level they can comprehend with minimal difficulty

and that contain stories, themes, or content of interest to them. Almost anything students actually read, as long as it is written at the right level and is interesting, provides opportunities to improve literacy skills in ways other activities cannot. Teachers need additional books for their students to read for two major reasons:

1. *Content-area teachers* need books written at different levels of difficulty that communicate information on similar topics so all students have the opportunity to read and acquire information they can contribute to classroom discussions. Content-area teachers may also need books or magazines to spark interest in specific topics or to provide opportunities for additional study and research.
2. *Intervention teachers* need carefully selected books or magazines to target reading experiences at the right level of difficulty for their students and to engage adolescents in interesting and relevant topics. One very successful intervention teacher observed, "It is amazing what I can teach when I have something interesting for my students to read."

Instructional programs and materials. These include material and products specifically developed to help improve adolescents' reading skills. They include:

- *Computer programs.* A variety of computer programs are available to teach, and provide practice in, literacy skills such as basic reading accuracy, reading fluency, and vocabulary. Carefully used, these programs can multiply the amount of targeted, engaged practice students receive. Although computer-assisted reading instruction for adolescents is not sufficiently developed to provide a sole remedy for struggling readers, it can provide powerful support when it is incorporated into a comprehensive, teacher-guided instructional program.
- *Intervention programs.* One reason to consider the use of well developed, research-based intervention programs is that they contain a comprehensive scope and sequence and explicit instructional routines, along with appropriate practice materials. These instructional elements are particularly helpful to students who need strongly organized, explicit instruction to make significant gains in their reading skill. These programs can be particularly helpful to less-experienced teachers, as long as the teachers are well trained in program procedures and understand the rationale for the

instructional approach. New teachers in particular should receive ongoing support so that the programs are implemented with fidelity.

- *Supplemental materials and programs.* Teachers, including content-area teachers, may need materials that will help them provide more effective vocabulary instruction, lead better classroom discussions, or teach reading strategies more effectively. Usually, these supplemental materials provide specific suggestions for instruction, and they often contain instructional exercises and materials that help teachers acquire more powerful instructional skills in various areas.
- *Books or articles teachers can study together.* As part of ongoing professional development, teachers may require multiple copies of books or articles that can be discussed in teacher study groups. As mentioned earlier, if student data suggest the need for additional study in a given area, the principal can support teacher study groups by providing appropriate research-based materials for them to consider and by participating in study groups when possible.

Review Sources for Instructional Programs and Materials

There are currently several sources that provide independent evaluations of both teacher-led and computer-based intervention programs. One source, available free from the North Central Regional Educational Laboratory (www.ncrel.org), is *Adolescent Literacy Intervention Programs: Chart and Program Review Guide.* Another is *Informed Choices for Struggling Adolescent Readers: A Research-Based Guide to Instructional Programs and Practices,* published by the International Reading Association. The "FCRR Reports" section of the website for the Florida Center for Reading Research (www.fcrr.org) contains teacher reports on intervention programs. These reports provide a descriptive analysis of instructional content as well as a discussion of the research support for the program. Finally, the What Works Clearinghouse, sponsored by the U.S. Department of Education, posts reports that carefully examine the research support available for a variety of reading intervention programs (www.whatworks.ed.gov/).

CONCLUDING COMMENTS

This has been a very brief overview of the major elements involved in successful school-level efforts to increase academic literacy in middle and high school students. It is grounded in research on reading and reading instruction, and incorporates information from principals who have led successful literacy initiatives in their schools. As brief as this guide is, the complexity of the effort it describes may seem daunting to principals who are just beginning systematic work on this topic in their schools. Successful principals are quick to acknowledge, however, that creating an effective culture of literacy in a middle or high school takes time. The best advice is to examine your school's current situation in light of the information in this guide, identify the things you are already doing well, and begin developing a plan to systematically increase your effectiveness in areas that need additional support. Although you may want to concentrate on only a few elements at a time, it is important to maintain a clear vision of the entire school-level system outlined in this guide, because it is the complete system, interacting in all its parts, which will eventually lead to the best outcomes for your students.

As you move forward with your plan, it is also important to understand that some elements of the overall plan are closely interdependent, and must be developed together. For example, if you identify and adopt a set of powerful intervention strategies for struggling readers, but have not addressed scheduling and grouping issues, then it will be very difficult to deliver the interventions with sufficient fidelity to insure good results. Similarly, if you develop an excellent assessment plan, but do not schedule enough professional development to support high quality administration, scoring, and interpretation of the assessment information, then the effort spent doing the assessments is not likely to lead to more effective planning and instruction.

RECOMMENDATIONS FOR ADDITIONAL READING

Biancarosa, G. & Snow, C. (2006). *Reading Next: A vision for action and research in middle and high school literacy: A report to Carnegie Corporation of New York (2nd ed.).* Washington, DC: Alliance for Excellent Education.

Irvin, J. L., Meltzer, J., & Dukes, M. S. (2007). *Taking action on adolescent literacy: An implementation guide for school leaders.* Alexandria, VA: Association for Supervision and Curriculum Development.

Langer, J. A. (2001). Beating the odds: Teaching middle and high school students to read and write well. *American Educational Research Journal, 38,* 837-880.

Meltzer, J., Smith, N. C., & Clark, H. (2002). *Adolescent literacy resources: Linking research and practice.* Providence, RI: Northeast and Islands Regional Educational Laboratory at Brown University.

McEwan, E. K. (2007). *Raising reading achievement in middle and high schools: Five simple-to-follow strategies* (2nd ed.). Thousand Oaks, CA: Corwin Press.

Phillips, M. (2005). *Creating a culture of literacy: A guide for middle and high school principals.* Reston, VA: National Association of Secondary School Principals.

Short, D. J. & Fitzsimmons, S. (2006). *Double the work: Challenges and solutions to acquiring language and academic literacy for adolescent English language learners.* A report to the Carnegie Corporation of New York. Washington, DC: Alliance for Excellent Education.