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Improving Classrooms and

Schools: What's Important

"Our student achievement has improved!" Bill, an elementary school principal, bubbled with enthusiasm. He had just received the results of his school's standardized achievement tests, and, after three years of hard work, the outcome was gratifying. Here's a part of his story:

Three years ago, I accepted my second principalship in a 400-student elementary school that had a history of low scores on achievement tests. Most students left the school at the end of fifth grade a year behind in math and reading. Many were two and three years behind. The students came from poor families, and while a good many staff members worked conscientiously, a consensus had developed that not much more could be expected of "our" students.

"Our" students are now scoring above grade level in reading and math. That's a fact I'm very proud of. The teachers have worked hard to achieve this change. Let me summarize what we've done in three years.

During the first year, the staff and I took a close look at our achievement history and the kinds of skills and knowledge required by the achievement tests. We tried to determine if we were systematically teaching the skills that were tested. We found, to some people's surprise, that we weren't. The faculty decided to develop units in both reading and math that specifically addressed these skills and provided an opportunity for students to learn.

In addition, I spent much of my time in classrooms making sure students were involved in their learning. About a half-dozen teachers were having problems with classroom management, and students tended not to be involved. We worked through the problems using a cycle of supervision that I introduced at a couple of faculty meetings. While the supervision was not always comfortable, we were able to get more students involved.

During the second year, we continued writing our skill units. I noticed that students in many classrooms were consistently failing many of these units, however. Indeed, the failure rate at the end of the first year had been high. A committee of teachers decided the school should adopt a mastery learning approach to instruction. This approach gives students who fail the first "formative test" more instruction in the skill area and a chance to succeed on the final test. We found that by providing the extra instruction, many more students were able to pass the "mastery" or final tests for each unit. Students were experiencing a higher level of success. Even grades on report cards went up. I also began to ask all teachers to report their mastery test scores to me after each unit so I can keep current track of student progress.

In the third year, we further developed a supervisory system that involved assisting teachers in planning, instruction, and classroom management. We also continued to look at students' involvement in classroom activities and at their success on the skill units.

These few activities have helped give the school an academic focus. Student achievement has improved consistently at all grade levels in the first three years. In addition, we also worked on school procedures so the school is more orderly now. And, most important, teachers are expecting, and getting, more success from students.

The ideas we put into practice exemplify the important areas highlighted by research on improving student achievement. In fact, I was hired partly for my use of ideas identified by the research on effective classrooms and schools. These ideas seem to me to be good common sense. For example, a school should be a safe place, physically and psychologically, for children to engage in the interesting pursuit of learning, in a climate where everyone succeeds. Running a safe school means providing a few clear rules and then making sure they're enforced with an even hand. Learning needs to be first, and teachers need to help provide children with exciting experiences that maintain high student involvement and interest. All students should master academic skills. When teachers agree on what all students should learn, then student achievement is likely to improve and everyone is more likely to succeed.

The principal is one of the most important people in the school when it comes to setting school climate and providing leadership. The principal makes sure the staff has the supervision needed to support professional improvement. Through supervision, teachers are aware of how their planning, instruction, and management patterns affect their students and their students' achievement.

This principal's report summarizes the findings of recent research on the characteristics of effective classrooms and schools. The purpose of this book is to use research findings like these to suggest areas of improvement with the aim of improving student achievement. Along the way, we'll provide examples of how teachers and administrators have used these ideas to improve classrooms and schools. In this

chapter, we describe how we picture the influences that foster student achievement on standardized tests, and summarize our understandings about student achievement.

Over the past 20 years, we've learned some things about student achievement and instruction in schools:

- Student achievement can be measured with validity and reliability in important areas.
- Teachers and schools make a difference in how well students succeed on standardized tests.
- Students who are involved in class generally succeed better than those who don't pay attention.
- Students who succeed on daily assignments and tests are more likely to have higher achievement on standardized tests.
- When teachers teach most of the content and skills covered by standardized tests, students are likely to have higher achievement scores.
- Curriculum packages, in and of themselves, will not result in higher achievement for students.
- Schools can produce exceptional student achievement, even when students come from low socioeconomic backgrounds.
- The principal exerts a tremendous influence toward refining and maintaining a school's social system that promotes achievement and discipline.
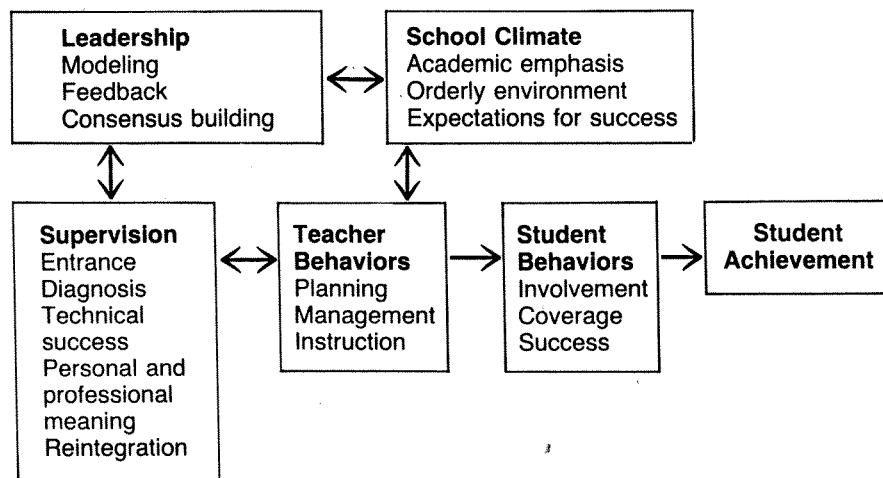- Change in school practices happens over a number of years.

These statements don't appear too startling, but then neither do other common-sense notions, such as the idea that the more training teachers receive, the better they will perform—an idea that, unfortunately, is not supported by recent studies. But the preceding list of learnings, because each one is borne out by research, provides us with some reliable and valid places to start when we are trying to improve schools and classrooms.

A caution is in order, however. There are to date relatively few experimental studies demonstrating that a change in any combination of these characteristics results in a change in student achievement on standardized tests. We are nevertheless encouraged by the depth and breadth of the mostly correlational studies that provided the foundation for this book. Taken as a whole, they suggest important areas to consider if improved student achievement is the goal.

A Model for School and Classroom Effectiveness

We have combined research on effective classrooms with research on

Figure 1. A Model for Improving School and Classroom Effectiveness.

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│ Leadership              │         │ School Climate          │
│ Modeling                │ ⟷       │ Academic emphasis       │
│ Feedback                │         │ Orderly environment     │
│ Consensus building      │         │ Expectations for success│
└─────────────────────────┘         └─────────────────────────┘
         ↕                                   ↕
┌─────────────────┐  ┌──────────────┐  ┌──────────────┐  ┌──────────────┐
│ Supervision     │  │ Teacher      │  │ Student      │  │ Student      │
│ Entrance        │⟷ │ Behaviors    │→ │ Behaviors    │→ │ Achievement  │
│ Diagnosis       │  │ Planning     │  │ Involvement  │  │              │
│ Technical       │  │ Management   │  │ Coverage     │  │              │
│ success         │  │ Instruction  │  │ Success      │  │              │
│ Personal and    │  └──────────────┘  └──────────────┘  └──────────────┘
│ professional    │
│ meaning         │
│ Reintegration   │
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effective schools to suggest important ways that teachers and administrators make a difference in student achievement (Squires, Huitt, and Segars, 1981). Our model, shown in Figure 1, provides one way of viewing schools and classrooms in order to answer the question, "What can schools do to improve student achievement?" In constructing this model, we begin by suggesting those factors most closely related to achievement, and we build the model outward to show how the school's organization—that is, its personnel (such as teachers and supervisors), administrative leadership, and school climate—affect student achievement. The following discussion of the elements of the model will proceed in the same order as its construction.

Effective Classrooms

Not surprisingly, student behavior—or what students do in class—is most directly correlated with their achievement scores. Specifically, research points to three areas that have the most potential for affecting student achievement:

1. **Involvement:** the amount of time a student actively works on academic content

2. **Coverage:** the amount of content covered by a student during a year, especially content tested by a standardized instrument

3. **Success:** how well students perform on daily assignments and unit tests indicating mastery of academic content.

Student involvement, coverage, and success make sense: if students have successfully spent enough time covering the content to be tested, then achievement should be high. We propose that measures of involvement (or engagement), coverage, and success become the focus of school improvement efforts. Such measures could be used on a quarterly basis in evaluating a school's progress toward improved achievement. Involvement, coverage, and success are so important and so relatively easy to measure that they should be carefully accounted for, much as money spent to support the school is accounted for. Chapter Two suggests how this can be accomplished by centering the school's program around improving students' involvement, increasing coverage of content, and promoting student success.

Student behaviors and student achievement—the last two elements of the model in Figure 1—are thus the starting points for the model. The rest of the model proposes school organization that supports the all-important student behaviors of involvement, success, and coverage.

The next element is teacher behavior. Teachers have the most influence over student behavior and support student achievement through planning, instruction, and classroom management. To the extent that the teachers' behaviors support students' involvement, success, and coverage, then student achievement will improve. Teachers can do this through planning, delivering instruction, and managing student behavior in their classrooms. If improved student achievement is the goal, then research has some suggestions about which teacher behavior patterns are most effective.

Just as a teacher's behavior supports students' behaviors, so supervision can support teachers. A positive supervisory process that brings to light the conflicts inherent in any supervisory relationship may promote professional growth if the supervision is focused on improving the students' involvement, coverage, and success.

Supervision also creates the opportunity for increasing teachers' skills in planning, managing, and delivering instruction. In the process of supervision, the supervisor and the teacher explore the meanings in the patterns of their professional behavior. The goal of positive supervision is to improve professional practice so that both supervisor and teacher become increasingly competent in performing their roles. If the teacher and the supervisor agree that student achievement is important, then patterns of student and teacher behavior are an appropriate focus of supervision.

Effective Schools

In unusually effective schools, active leadership creates a school climate

in which success is expected, academics are emphasized, and the environment is orderly.

Teachers and administrators in these schools emphasize a curriculum of reading, writing, and math in a businesslike environment that promotes and reinforces disciplined instruction that takes up much of the school day. Teachers in effective schools spend more time on lessons (beginning and ending on time) and provide periods of quiet work. In secondary schools, homework is given and graded regularly. Thus, an academic emphasis promotes student involvement and coverage.

Students cannot be successfully engaged in academic work in a disorderly environment, however. Effective schools generally recognize a uniform standard of discipline, which is enforced fairly by administrators and teachers. Students are encouraged to hold positions of responsibility, and their contributions are publicly recognized. Classroom routines also promote an orderly environment in which lessons start and end on time, students bring the necessary materials to class, and teachers give and correct homework. Students are more likely to be engaged if classroom routines and discipline procedures help keep them on task and involved.

In effective schools, students are expected to reach the goals set for them. Student success is built into lessons, and teachers provide consistent rewards for demonstrated achievement. Standards for achievement in effective schools are high, yet reasonable, and students expect to master their academic work and graduate from high school. They feel teachers care about their academic performance and believe hard work is more important to that performance than luck. Because they have been successful in the past, the students have a sense of control over their environment.

Student success is clearly related to school climate, which is, in turn, related to leadership. Three leadership processes build and maintain a school's climate: modeling, feedback, and consensus building. Leadership generally comes from the principal, although teachers may provide it as well. Principals, in particular, model appropriate behavior, which supports a positive school climate. Principals support inservice programs, monitor classrooms and supervise instruction, and provide time for teachers to plan together. By doing so, they set the tone and focus of the school. Even paying attention to faculty punctuality reinforces the principal's concern for how school time is spent. But principals can also provide negative models. If the principal believes students are not likely to learn, then the principal is not likely to be concerned about whether the staff devotes enough time to instruction.

Feedback that supports and recognizes successful academic performance and appropriate behavior is also more likely to occur in

effective schools. Principals give teachers feedback by observing classrooms, conferring with teachers about instructional issues, and providing inservice to enhance teachers' skills. They see that formal punishments are administered swiftly, and they monitor the faculty to reduce verbal humiliation and unsanctioned violence against students. In short, the principal's actions communicate the message that praise, rewards, and encouragements need to outweigh negative sanctions.

Developing consensus about academic focus and expectations for behavior is a third leadership process in effective schools. Consensus is generated by schoolwide projects for change and by appropriate and consistent models and feedback. Again, the principal is pivotal in developing this consensus. Principals of effective schools have a focus in mind when running their schools. They ensure that school goals are set, guide the development of consensus around those goals, and systematically check to see that the school is operating accordingly. In schools where students and faculty perceive a consensus on discipline and academics, school outcomes are generally high.

Measuring Student Achievement

Our model focuses on factors associated with student achievement on standardized tests—an important educational outcome. Standardized tests provide a reliable and valid indicator of school outcomes, particularly in the basic skills areas of reading comprehension and mathematics computation.

While schools certainly have other purposes and goals as well, if they aren't successful in teaching most of their students these basic skills, then they probably will not be considered successful by students, parents, and the school board. To be sure, testing doesn't tell the whole story, nor is it the only valued result of education. Indeed, some skills—such as writing, oral language skills, and group problem solving—are difficult to assess with traditional standardized instruments, but that does not mean they should be ignored as important outcomes or significant parts of the curriculum. We use standardized tests as benchmarks for a school's success because they are more reliable, valid, and accepted than any other outcome measure. With that in mind, let's take a look at some of the things we know about student achievement and standardized testing.

First, student achievement on standardized tests generally predicts achievement for succeeding years, and gains or deficits in standardized tests tend to have a cumulative effect when viewed across a number of years. Thus, the difference in achievement between the top and bottom students increases with their ages. Predictive validity of standardized

scores, and their correlation with future achievement, support their importance as a significant outcome measure.

Second, as the public furor over the decline of SAT scores during the 1970s clearly showed, standardized tests provide a measure of educational effectiveness in the public's eyes. Indeed, many minimum competency testing and school improvement programs have resulted from public concern for falling scores and demands in the state legislature for educational accountability. Because of public acceptance, then, standardized tests are an important measure of educational outcomes.

Third, schools that achieve above expectations on standardized tests also tend to succeed in other important areas, such as attendance, student self-concept and participation, lack of student disruption and vandalism, and low incidence of delinquent behavior in the community. This suggests that areas that correlate with standardized test performance provide clues to more effective classrooms and schools. For these reasons, our model organizes correlates of student achievement from many studies to suggest areas schools can change in order to increase student achievement.

Overview

The model provides the outline for this book. In Chapter 2, we provide an overview of research about involvement, coverage, and success. Instruments and procedures for monitoring these student behaviors are included in Appendix 1. We then describe how teachers' behaviors in the classroom support these variables for improved student achievement and suggest implications for action based on the research.

Chapter 3 suggests ways administrators can help teachers promote involvement, coverage, and success through positive supervision in which conflicts inherent in supervision are appropriately managed so professional growth can occur. Bill, the principal introduced at the beginning of this chapter, gives an example of his supervisory system.

Unusually effective schools are the topic of Chapter 4, and Chapter 5 demonstrates how indicators of effective schools are grouped into the more general categories of school climate and leadership.

In Chapter 6, a hypothetical case study is used to show how Bill's school leadership processes promoted a school climate where there is an academic emphasis, an orderly environment, and expectations for success. The chapter ends with suggestions for superintendents and school boards who want improved student achievement. Chapter 7 includes a questionnaire for collecting data about a school's effectiveness. The book concludes by summarizing ideas about change in schools.