

Improving Classrooms and Schools: What's Important

Achievement improves when students have opportunities to experience success, and can increase their academic involvement and the amount of material they cover.

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Over the past several years, researchers have discovered five school and classroom indicators that are associated with student achievement scores: school leadership, supervision, schoolwide norms, teacher behaviors, and student behaviors. These indicators and how they are interrelated, as shown in Figure 1, are important factors for administrators and teachers to consider when taking stock of their school.

Student classroom behaviors that indicate involvement, success, and coverage of appropriate content are most closely linked to student achievement, which is supported by teacher behaviors such as planning, management, and instruction. Supervisors foster teachers' professional growth by increasing the teachers' planning, management, and instruction skills. When supervisors help teachers plan for high student engagement, success, and coverage of content, then student achievement is likely to improve. The leadership in the school models and builds consensus around schoolwide norms, which support supervision, planning, and teaching that focuses on better student engagement, success, and

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Figure 1. What's Important for Improving Classrooms and Schools.

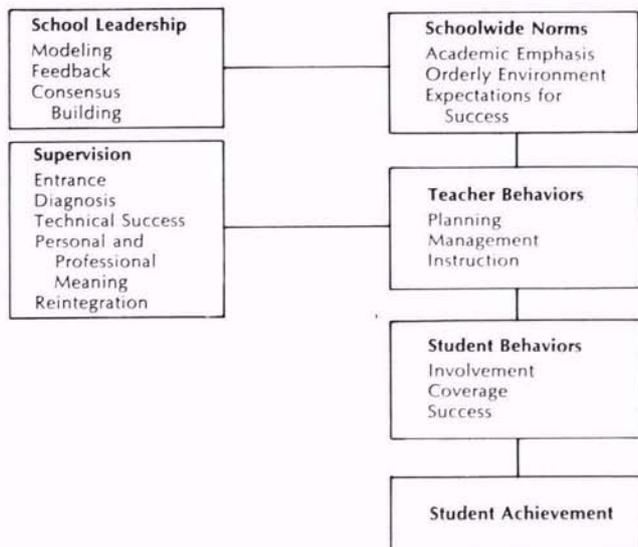
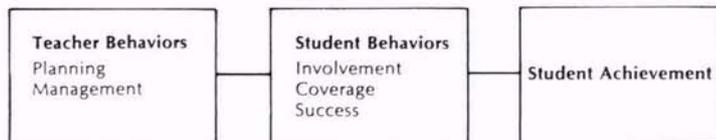


Figure 2. Dimensions of Classroom Effectiveness.



coverage. This is also the focus of the teacher's efforts in planning and implementing instruction and management strategies.

Effective Classrooms

Student Behaviors. Figure 2 shows three dimensions of effective classrooms that particularly influence student achievement.

Student involvement refers to the degree to which students actively work on academic content such as reading or mathematics. One measure of student involvement is *allocated time*—the amount of time given for instruction. Another measure is *engagement rate*—the percentage of time students actually spend working on assigned tasks. This is particularly important since students do not actively work on academic content the entire time allocated for it. Instead, students may spend time waiting for a new activity to begin, getting materials, sharpening pencils, talking to a neighbor, or staring out the window. Research has shown that average engagement rates can range from 60 percent to 75 percent at any given time (Brady and others, 1977; Fisher and others, 1978).

There is still a third measure of involvement that integrates allocated time and engagement rate—*engaged time*. Engaged time is the number of minutes per day that students spend actively involved in specific subject matter. In a nationwide study of Follow Through Programs involving more than 600 variables, engaged time showed the single strongest relationship to student achievement gains (Stallings and Kaskowitz, 1974). In general, the greater the amount of student engaged time, the greater the student achievement. However, a re-analysis of the Follow Through data indicates that more engaged time is not necessarily better. This re-analysis suggests that first-grade students should probably spend no more than 85 minutes in math and third-grade students should probably spend no more than 130 minutes in reading and language arts.

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To determine patterns of allocated time, teachers and administrators can keep a record of the beginning and ending times of math and reading classes over a period of one week. To determine engagement rates, it is first necessary to identify and agree on behaviors that indicate students are engaged. Next, observers can scan classes once every two minutes for a period of 20 to 30 minutes to determine which students are engaged. Patterns of engagement within and between classes can then be discussed both on an individual and on a schoolwide basis (Caldwell and others, in Huit and others, 1981). The faculty should be able to reach consensus on whether they spend enough time teaching basic skills and whether their teaching strategies encourage student engagement.

The second student behavior significantly related to achievement is coverage—the amount of content covered by the student during the school year, especially content tested on a standardized assessment instrument. The Instructional Dimensions Study, for example, indicates generally that more than 60 percent of the content on norm-referenced achievement tests needs to be covered for students to improve their percentile ranks (Cooley and Leinhardt, 1980). However, this same study shows that the amount of overlap between content taught and content tested ranges from a low of 4 percent for some students to a high of 95 percent for others.

Administrators and teachers can determine content overlap by matching standardized test objectives to the objectives of the text series used at each grade level. By checking the objectives covered during instruction, individual teachers and schoolwide groups can obtain necessary data for changing the instructional emphasis or using other tests that provide greater coverage of the content that is taught. In such a process, consensus can be developed around the instructional focus of the school.

Success, the third behavior, refers to how well students perform on classroom tasks. Several theories of instruction feature the importance of student success for achievement (Bloom, 1976; Skinner, 1968). They have been further supported by studies at the Far West Laboratory for Educational Research and De-

velopment (Fisher and others, 1978, 1979) and by the Research and Development Center for Teacher Education at the University of Texas (Crawford and others, 1975). Data from the Far West study indicate that, on the average, students spend only 50 percent of their time on tasks that provide for high success (that is, on assignments where they make only careless errors). Students who spend more than the average time in high success activities generally have better than expected scores in reading and mathematics.

Teacher Behaviors. Teachers taking stock of success in their classrooms might ask themselves, "Who won't pass Friday's spelling test?" or "Do most students, most of the time, complete written work easily and with relatively few errors?" Administrators might review teachers' grades when report cards are issued and conduct conferences with teachers whose students are failing. When observing classes, administrators should note the teacher patterns—such as calling on each student during each class period—that encourage student success.

In effective classrooms, teachers plan their instruction so that content to be tested later is covered in their lesson plans, which should also include procedures for monitoring student progress along the way. In addition, students' prior learning should be taken into account. Research has underscored the vital significance of attending to prior learning (Brady and others, 1977; Brookover and others, 1979; Cooley and others, 1980). Bloom (1976) estimates that 60 to 80 percent of the difference in student achievement scores is due to differences in students' past learning.

Implementing instructional plans requires teachers to use a number of techniques. Typically, research on specific instructional techniques—such as questioning, modeling, or providing feedback—and how they relate to student achievement reveals numerous and complex relationships. The effects of any single technique are quite limited. Nevertheless, several instructional models have been developed for different aspects of the teaching process. Among them are Mastery Learning (Block and Burns, 1976), Direct Instruction (Good and Grouws, 1979), and Diagnostic/

Prescriptive Teaching (Hunter, 1979). What makes them particularly applicable here is that the effects can be monitored for student involvement, coverage, and success.

A number of studies have shown that teachers' management skills are especially important for maintaining student involvement (Anderson and Evertson, 1978; Berliner, 1978; Emmer and Evertson, 1981; HEW, 1978). The most effective approaches to management build group cohesiveness, establish productive group norms, and develop positive teacher-student and student-student relationships (Duckett and others, 1980; Goldstein and Weber, 1981). An authoritarian approach whereby the teacher assumes full responsibility for controlling student behavior, often through the use of pressure and force, is significantly less effective.

Teachers and administrators need to determine if planning for instruction is taking place. In most schools, planning periods are set aside; in some, lesson plans are required of teachers, who receive periodic feedback from administrators. Some schools are experimenting with group planning by teachers on the same grade levels or content areas. Classroom management may warrant more individual supervision by administrators, especially at the beginning of the year when teachers instruct students in appropriate classroom behavior patterns (Emmer and Evertson, 1981; Evertson and others, 1980). Administrators and teachers can recognize patterns that promote successful classroom management, such as providing equal opportunities for all students to be involved. Improvement in teachers' planning and management strategies can be partially judged by student engagement and success and the amount of content they have covered.

Positive Supervision. Supervision creates the opportunity for increasing teachers' skills in planning, managing, and delivering instruction. In the process of supervision, the supervisor and the teacher explore patterns in their professional behavior and the meaning that each attaches to them. The goal of positive supervision is to improve professional practice so that both individuals become increasingly competent in performing their roles. If both the teacher and the supervisor

agree that each has a role in contributing to student achievement, then patterns of student behaviors are an appropriate supervisory focus. The focus may also include the teacher's behavior in planning and implementing instruction and management strategies.

In positive supervision, the successful supervisor and teacher overcome conflicts that are inherent in the supervisory relationship. These conflicts are different during the five phases of supervision: entrance, diagnosis, technical success, personal and professional meaning, and reintegration (Squires and Huitt, 1981).

During the entrance phase of a positive experience in supervision, the task is to establish the format, goals, and expectations governing the

"In positive supervision, the successful supervisor and teacher overcome conflicts that are inherent in the supervisory relationship."

supervisory relationship. In this phase the supervisor and teacher can set dates for classroom observations and planning lessons and reach agreement on the focus of the supervisory experience. If both agree that student academic achievement is one of the important goals of the school, then student involvement, coverage, and success can become the focus of their actions.

The task during the second phase is to identify a particular pattern needing improvement. For example, during a classroom observation, the supervisor may notice that students in the front of the room are more involved than students in the back.¹ The teacher and supervisor may choose to work on obtaining high involvement by all students.

During the technical success phase of positive supervision, the task is to change professional behavior. For example, the supervisor and the teacher may plan instruction so the

teacher can move to the back of the room more frequently. The teacher may also compare the characteristics of students in the back of the room with those in the front, questioning whether his or her different expectations are contributing to students' behavior patterns. Several strategies may be tried out until the teacher feels competent in and comfortable with whatever changes are made. These strategies can be assessed by looking at student involvement.

Examining the meaning of the change and its implications for both the teacher's and the supervisor's professional and personal roles constitutes the fourth phase of positive supervision. For example, if the teacher thought that students in the back of the room were really not as able as those sitting in the front, then exploring this assumption with the supervisor may be helpful. They may decide that increasing the amount of interaction with students in the back may help change the teacher's beliefs about the behavior of those students. The supervisor, in turn, can explore different ways to "play" this supervisory role, thus promoting his or her own professional growth.

In the fifth phase of positive supervision, reintegration, both the teacher and the supervisor integrate their new competence into their professional repertoire. The teacher, for example, regularly checks his or her behavior to see that all students participate in classroom activities. In a successful relationship, the supervisor lessens the dependence of the relationship.

Conflict. Any one of these supervisory phases has potential for conflict, which is inherent in the tasks of supervision. Figure 3 illustrates some examples of conflicts that both teachers and supervisors encounter in the supervisory process.

During the entrance phase, the supervisor must provide enough structure to get started without dampening his or her relationship with the teacher. The teacher, on the other hand, wants to improve but must submit to judgment in order to do so. During diagnosis, conflict centers on the issues of disclosure, judgment, and trust. The technical success phase is characterized by conflicts in overcoming procedural difficulties. During the personal and

professional meaning stage conflicts arise in efforts to maintain a balance between personal and professional issues. Finally, during the reintegration phase, conflict centers on reducing the supervisor's and teacher's dependence on each other, which develops naturally as part of any positive supervisory relationship.

Supervisors and teachers who can successfully address involvement, success, and coverage, and who can resolve the conflicts inherent in the supervisory process are likely to improve student achievement as well. What's more, they are likely to view the entire experience as a positive one that will enhance the effectiveness of the classroom and the school.

Effective Schools

Schools with similar students and faculties can, of course, vary widely in academic achievement, safety, vandalism, student discipline, and student attendance. Leadership patterns and schoolwide norms can make it easier or more difficult for teachers and supervisors to plan classroom strategies so that students are involved, cover the necessary content, and succeed. (See Figure 4).

School norms are similar to the informal rules that govern any organization or group. For example, one norm that students may learn is that it is unacceptable to be late for classes. While a school may have many norms, three stand out in determining the school's effectiveness: academic emphasis, an orderly environment, and expectations for success. Many of the indicators of effective classrooms are also indicators of schools that succeed above expectations.

Effective schools are characterized by a strong emphasis on academics. Their teachers and administrators emphasize a curriculum of reading, writing, and math in a businesslike environment that promotes and reinforces disciplined work (Duckett and others, 1980) and instruction that absorbs much of the school day (Fisher and others, 1979). Teachers in effective schools spend more time on lessons (beginning and ending lessons on time) and provide periods of quiet work. In secondary schools, homework is given and graded regularly (Rutter and others, 1979). The school norm about academic emphasis promotes student involvement

Figure 3. Examples of Conflicts in Supervisory Experiences.

Phases of Supervision	Teacher's Conflicts	Supervisor's Conflicts
Entrance Example of a Task: A structure for supervision (in other words, clinical supervision is discussed)	Being judged vs. knowing one could improve	Establishing appropriate formats and structures so that the teacher feels comfortable, while maintaining avenues for future growth
Diagnosis Example of a Task: The focus of supervision is decided upon; an agreement to work on that focus is made	Fear of disclosure of personal and professional inadequacies vs. professional concerns, trusting the supervisor	Sensing teacher's conflicts/problems while not making judgments
Technical Success Example of a Task: Supervisor and teacher experience success on the focus of supervision	Justifying the status quo vs. accepting, trying, and overcoming difficulties	Resisting imposing a "personal" schedule on the teacher, while ensuring that success (in the teacher's terms) happens, and encouraging teacher's continued growth
Personal and Professional Meaning Example of a Task: Supervisor and teacher examine what implications the success has for their professional role and personal lives	Disclosure to the supervisor of the more personal meanings of technical success	Controlling depth of involvement with teacher's more personal concerns while maintaining balance with professional change
Reintegration Example of a Task: Consolidation of meanings for professional and personal self, integration of technical success into professional repertoire, and disengagement from supervisory relationship	Feeling comfortable in using newly acquired skills and understanding while resolving conflicts about dependence on the supervisor	Letting go in a successful relationship while wanting to continue in this powerful stage

Figure 4. Dimensions of Schoolwide Norms and Leadership.

Leadership

Modeling
Feedback
Consensus
Building

Schoolwide Norms

Academic
Emphasis
Orderly Environment
Expectations for
Success

and coverage. Administrators can develop systems to occasionally check teachers' punctuality in starting and ending classes, and review their lesson plans to see whether homework is being assigned.

Students cannot be successfully engaged in academic work in a disorderly environment. Effective schools generally recognize a uniform standard of discipline, which is enforced by administrators, teachers, and students (Squires, 1980; HEW, 1978), and is fair to students (HEW, 1978). Teachers and administrators can foster an orderly environment by permitting students to hold positions of responsibility and by publicly recognizing their contributions (Rutter and others, 1979). Classroom routines also promote an orderly environment—lessons start and end on time; students bring books, pencils, and folders to class; and teachers give and correct homework (Rutter and others, 1979). Students are more

likely to be engaged if classroom routines and discipline procedures help keep them on task.

In effective schools, students are expected to succeed in reaching the goals set for them. Student success is built into lessons, and teachers provide consistent rewards for demonstrated achievement (Brookover and others, 1979). Standards for achievement in effective schools are high, yet reasonable (Duckett and others, 1980), and students expect to master their academic work and graduate from high school (Brookover and others, 1979; Rutter and others, 1979). They feel that teachers care about their academic performance and that hard work is more important than luck. Students have a sense of control over their environment as a result of having been successful in the past (Coleman and others, 1966). Note again the relationship between schoolwide norms and student success. Adminis-

trators might take stock of teachers' expectations by asking them to describe the reasons for a student's failure. If failure is ascribed to family background or place of residence, then the teacher's expectations may be contributing to the student's lack of success.

Three leadership processes build and maintain school norms: modeling, feedback, and consensus building (Squires, 1980). Leadership generally comes from the principal, although teachers may provide it as well (Duckett and others, 1980).

Principals, in particular, model appropriate behavior. They support inservice programs, monitor classrooms and supervise instruction, and provide time for teachers to plan together (Rutter and others, 1979; HEW, 1978). 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 (Rutter and others, 1979). Conversely, principals can 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 either (Brookover and others, 1979).

Feedback that supports and recognizes successful academic performance and appropriate behavior is also more likely to occur in effective schools (Brookover and others, 1979; Rutter and others, 1979; HEW, 1978). Principals give teachers feedback by observing classrooms, conferring with teachers about instructional issues, and providing inservice to enhance teachers' skills (HEW, 1978; Wynne, 1980). They see that formal punishments are administered swiftly and they monitor the faculty to reduce verbal humiliation and unsanctioned violence against students (HEW, 1978). In short, the principal's actions communicate that "praise, rewards, and encouragements need to outweigh negative sanctions" (Rutter and others, 1979).

Developing consensus about academic focus and behavior expectations is a third continuous process in effective schools. Consensus is generated by schoolwide projects for change and by appropriate and consistent models and feedback (Duckett and others, 1980; Wynne, 1980).



Again, the principal is pivotal in developing this consensus (Austin, 1979; Edmonds, 1979; HEW, 1978). Principals of effective schools have a focus in mind when running their schools (Duckett and others, 1980). The principal sees that school goals are set, guides the development of a consensus around those goals, and systematically checks 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 (Rutter and others, 1979; HEW, 1978). Administrators can determine consensus in a school by asking students, teachers, and support staff about the purpose of the school and how that purpose is carried out. If the answers have a similar focus on the academic program and procedures, then a school-wide consensus has probably developed.

Summary

It is often difficult to determine which aspects of the classroom or the school should receive particular attention when making efforts to improve student achievement. Should emphasis be placed on buying a new text? Hiring new teachers? Adopting a new instructional strategy? Restructuring the school? Firing the principal? Our suggestions can help educators make such decisions and succeed in their improvement efforts without having to wait for results of annual measures, such as standardized achievement tests. The effects of change then can be more immediately and directly assessed throughout the school year. ■

¹ Instruments that are easily used by supervisors and teachers to collect classroom data and produce data similar to that gathered using the original research instruments are becoming increasingly available (Huitt and others, 1981; Segars and others, 1981).

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