Most of the recent research identifying organizational characteristics that seem to make schools unusually effective has been conducted at the elementary level and may not be applicable to secondary schools. Research currently underway suggests that the basic organizational structures of elementary and secondary schools dictate two different approaches to improving effectiveness. The secondary level is distinguished from the elementary level by structural looseness, departmentalization, and increased size. These factors undermine agreement on educational goals and block efforts of high school principals and administrators to influence classroom management. Secondary school principals are limited in their influence over programs and exercise symbolic leadership. Furthermore, it must be recognized that schools serve students of a wide range of socioeconomic and intellectual levels, and that high schools, in particular, must prepare these students for the outside world. Therefore, in defining secondary school effectiveness, it is necessary to consider more than the criterion of "basic skills."

(Author/GC)
EFFECTIVE SCHOOLS:

DO ELEMENTARY PRESCRIPTIONS FIT SECONDARY SCHOOLS?

William A. Firestone
Research for Better Schools

Robert E. Herriott
Research Sociologist

June, 1982
EFFECTIVE SCHOOLS: DO ELEMENTARY PRESCRIPTIONS FIT SECONDARY SCHOOLS?¹

Over the last few years, research has identified a set of organizational characteristics that seem to make some schools unusually effective in serving their instructional function. One is a school climate stressing, among other things, academic objectives. A second is strong instructional leadership from the principal. Unfortunately, most of the school effectiveness studies have been conducted at the elementary level; it is hard to interpret their applicability to secondary schools. Research now underway at Research for Better Schools (RBS) highlights the differences between elementary and secondary schools and suggests that the basic organizational structure at the secondary level may necessitate different approaches to improving effectiveness and even different definitions of effectiveness. To indicate why this is so this paper reviews some of the effective schools literature and then describes relevant differences between elementary and secondary schools before raising questions about how to promote effectiveness at the secondary level.

What Makes an Effective School?

Ever since the first Coleman Report in 1966, there has been a broad interest in improving the ability of schools to teach basic communication and computation skills to children from all family backgrounds. Much attention has focused on a few unusually effective schools—statistical "outliers"—where achievement scores are considerably higher than would be predicted from the socioeconomic background of the student body. Reviews
of studies of such schools suggest a number of characteristics that must be brought together to promote effectiveness. One of the most frequently cited reviews, conducted by Ronald Edmonds, highlights the importance of strong administrative leadership, expectations that children can succeed, an orderly—but not oppressive—atmosphere, an emphasis on basic skills instruction over all other activities, the ability to divert resources to that end, and means to monitor pupil progress. Another review, one sponsored by David Clark and his colleagues, concludes that three clusters of variables contribute to school success: leadership, teaching personnel, and curriculum and instruction. It goes on to suggest that effective schools concentrate on narrow targets and clearly defined goals, use multiple tactics to attain those goals, maintain a balance among tactics, and concentrate interventions close to the point of effective action.

The various studies differ in the specific variables they address and in their areas of emphasis. However, there are some points of agreement. One of these is on the importance of the overall climate of the effective school. This climate is multi-faceted. It includes orderliness and a belief that children can learn. An important aspect of climate is an agreement among the staff on goals for the school, and especially on the importance of stressing basic skills instruction. This is what the Phi Delta Kappa review refers to as narrow targets of opportunity and what Edmonds calls an emphasis on basic skills instruction.

A second area of agreement is on the importance of leadership. The principal is seen as the key actor in modifying the school's climate and making concrete changes in instructional processes. However, agreement in this area is more apparent than real because of the ambiguities and
contradictions in discussions of leadership. The most common lesson drawn from this literature is that the principal in the effective school should be an "instructional leader," almost a master teacher with clout. Austin, for instance argues that principals in effective schools are directly involved in the instructional program, often spending time teaching or being in the classroom in some other capacity. However, our review indicates that the various studies disagree in two areas: the extent to which the principal should concentrate on instructional as opposed to administrative matters and whether he or she should seek to direct the instructional program or support it by helping others implement their ideas and by promoting a climate for learning. The Clark review emphasizes the importance of balancing administrative and instructional concerns. An earlier study, one not limited to unusually effective schools, found a strong relationship between leadership and student achievement after family background had been controlled. However, as operationalized, this conceptualization of leadership did not emphasize actively influencing or directing instruction so much as facilitating instruction by offering symbolic and material support to teachers as professionals.

Comparing Elementary and Secondary Schools to the Ideal Effective School

Because the bulk of the effective schools research has been conducted at the elementary level, it is important to ask how applicable these findings are to secondary schools. Our current research provides an opportunity to examine how likely the characteristics of effective schools are to be found at different levels of the educational system. During the study, project staff visited a random sample of 50 schools...
elementary and 23 secondary—in southeastern Pennsylvania. Because the area includes both extremely urban and isolated rural areas along with all conditions in between, this broad sample provides a useful means for learning about variation in the organization of schools at different grade levels. The major source of data for the study was a questionnaire filled out by teachers. The number of questionnaires returned ranged from seven to 69 per school. On the average, usable responses were obtained from 86 percent of the teachers in each school.

The results of the study suggest that some of the features that seem to characterize effective schools are significantly less prevalent at the secondary level than in elementary schools (Table 1). Our major "climate" measure focuses on agreement on instructional goals. Teachers were asked to rank the importance "to you as a member of your school" of achieving seven student outcomes. Within each school, teacher rankings were compared for similarity. There is significantly less agreement at the secondary level than at the elementary level. A substantial portion of this inter-level disagreement is related to emphasis given to basic skills. Substantially more teachers in the elementary schools rank that goal as most important (44 percent) than do secondary teachers (30 percent).

Because of ambiguity about the nature of leadership, we examined four measures of it. Differences between levels were statistically significant on only one variable, but that one—influence over classroom management—is central to the idea of instructional leadership. In fact, teachers have more influence than principals over day-to-day classroom management.
### Table I

**MEAN SCORE OF THE AVERAGE ELEMENTARY AND SECONDARY SCHOOL IN THE RBS SAMPLE ON CLIMATE AND LEADERSHIP MEASURES**

<table>
<thead>
<tr>
<th>A. Climate Measures</th>
<th>Direction Promoting Effective Schooling</th>
<th>School Level</th>
<th>Statistical Significance of Between Level Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Goal Consensus²</td>
<td>High</td>
<td>Elementary</td>
<td>Secondary</td>
</tr>
<tr>
<td></td>
<td></td>
<td>.440</td>
<td>.246</td>
</tr>
<tr>
<td></td>
<td></td>
<td>p &lt; .001</td>
<td></td>
</tr>
<tr>
<td>2. Percent of Teachers Ranking Basic Skills First in Importance</td>
<td>High</td>
<td>44.3</td>
<td>30.3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B. Leadership Measures</th>
<th>Direction Promoting Effective Schooling</th>
<th>School Level</th>
<th>Statistical Significance of Between Level Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Centralization of Influence: Classroom Management³</td>
<td>High</td>
<td>-1.33</td>
<td>-1.79</td>
</tr>
<tr>
<td>2. Centralization of Influence: Programming and Staffing³</td>
<td>High</td>
<td>0.57</td>
<td>0.46</td>
</tr>
<tr>
<td>3. Administrator-Teacher Communication⁴</td>
<td>High</td>
<td>1.43</td>
<td>1.29</td>
</tr>
<tr>
<td>4. Facilitative Leadership (EPL)⁴</td>
<td>High</td>
<td>3.63</td>
<td>3.35</td>
</tr>
</tbody>
</table>

---

¹ Based on a two-tailed t-test.
² 1 = complete agreement, 0 = completely random pattern of goal rankings.
³ +3.00 = major principal influence, -3.00 = major teacher influence. 0.00 = equal influence.
⁴ 0.00 = low, 5.00 = high.
decisions at all levels. But this difference is significantly greater at the secondary level. On the other hand, influence over program (what courses are offered, what innovations are adopted), and staffing (who teaches what course) are shared between teachers and principals. Secondary principals have about as much influence as their elementary counterparts.

The idea of instructional leadership implies frequent communication between principals and teachers about issues related to curriculum, discipline, and the management of specific children. When asked how often they talk about these issues with their principals, teachers in this study indicate that such communication is almost as infrequent at the secondary as at the elementary level.

Another aspect of leadership is facilitating the work of teachers. This can be done in many ways. One is through symbolic activities that communicate the expectation that teachers can teach. Gross and Herriott's Educational Professional Leadership scale addresses this latter aspect of leadership, and the teachers we studied responded to a subset of those items. Generally, principals do engage in this sort of activity although there are substantial differences among schools. However, differences between levels in this respect are negligible.

Why the Differences?

Taken together, these findings suggest that schools at the two grade levels are different in important respects. In contrast to high schools, elementary schools have more of a shared sense of purpose with a greater emphasis on basic skills instruction. Elementary principals also have more opportunity to be instructional leaders by influencing classroom management.
(although this is still definitely in the teacher's zone of control). Why should this be so?

Such consistent differences between levels are unlikely to reflect the characteristics of principals as individuals. Instead, they seem to reflect basic aspects of the structure of the secondary school. The key difference seems to be that secondary schools are departmentalized. In effect, a broad range of goals is built into the structure of a school as soon as it has separate units for teaching English, mathematics, social studies, vocational courses, and other topics. Thus, secondary teachers may agree that basic skills instruction is important, but many of them can reasonably argue that "it's not my job." Even the most charismatic principal may find it difficult to create consensus on instructional goals with such built-in diversity.

Departmentalization can also undermine the principal's influence. Austin suggests that in effective schools principals rely on expert power. "The principals in these studies were viewed by the teachers... as persons who are expert in a wide variety of areas concerning education. In these studies, the principal is identified as an expert instructional leader... and the level of instructional expertise falls in the area of reading and arithmetic." However, secondary school teachers are subject matter specialists. In our sample 66 percent of the secondary teachers were specialists while only 8 percent were at the elementary level. The principal has to have more knowledge about more subject areas to offer assistance to such specialists; and when he or she does not, influence becomes limited. Thus, a teacher in one high school reports that "By virtue of law the principal is responsible for instruction in his building..."
Unfortunately, they're not qualified. (My principal) can't help me with second year algebra."

There is also an additional level to the formal hierarchy of the secondary school: the department chair. This person, rather than the principal, is often the one charged with communicating with teachers about routine questions of instruction and discipline. This became apparent when we discussed our findings with principals of schools in the study. One of the high school principals looked at the items on the administrator-teacher communication scale in particular and said that if a teacher talked to him about some of these issues—like discipline—every day, he would conclude that something was wrong with the teacher. These principals argued that discussion of day-to-day instructional matters with teachers was the responsibility of the department chair.

A second factor that limits the principal's influence with teachers at the secondary level is staff size. The average secondary school in our sample has 37 teachers while the average elementary school has only 17. It seems to be difficult for the secondary principal to have direct influence on the day-to-day work of all teachers in the building. Instead, a great deal of teacher contact is delegated to others, such as assistant principals and department chairs. The limitation of size on influence is less apparent in the area of program and staff. These decisions are made on an annual cycle so less frequent monitoring of everyday activity is required. Moreover, since they revolve around the allocation of staff and funds, they fall into more generally acknowledged areas of administrative authority than classroom management decisions.
It is also worth considering why extra-level data shows that inter-
teacher communication and facilitative leadership are relatively high,
right expect big differences in communication between levels only
because secondary schools are larger. However, even with the increased
number of teachers comes growth in the number of administrators, and our
questions asked about administrator-teacher communication. At each
level, teachers communicate with some administrator at near the top
rate, but this person may not always be the head principal. Facilitative
leadership does not require frequent communication, instead. It revolves
around symbolic behavior and patterns of resource allocation. It seems
likely that a few well-publicized examples of the principal treating
teachers as professionals or providing resources for useful staff develop-
ment can have extensive ripple effects.

Findings and Implications

Although limited to only a few key variables from the effective
schools research, these findings illustrate that much of what is suggested
as desirable by that literature is more typical of elementary than sec-
dary schools. The findings from our random sample of 30 schools suggest
that the pattern at the secondary level conforms more to the picture of
structural looseness suggested first by Bidwell and more recently by Welck
and Deal and Celotti than to the desirable pattern from the effective
schools literature. Structural looseness is accentuated at the secondary
level by departmentalization and increased size. These factors undermine
agreement on educational goals and block efforts of secondary administra-
tors to influence classroom management. Apparently, our ways of thinking
about elementary and secondary schools have to be differentiated. It may be more useful to think of the professional staff of an elementary school as approximating a work group and that of a secondary school as members of a complex organization. Then, the principal in the former is more like the head coach of a sports team. In the latter he or she is somewhat closer to the chief executive officer of a corporation. Each principal has some responsibility for maintaining a climate conducive to productivity within his or her sphere of authority, but relations to instructional processes will be very different. The first does more to keep track of day-to-day work and communicates frequently with staff. The second is more concerned with issues of resource allocation and external relations than technical processes. This comparison suggests that "leaders" of different kinds of schools have very different jobs to perform. It also reminds us of the variety of leadership functions that must be performed and underlines how little we know about the nature of leadership in all schools.

In the meantime, this study suggests two means that are open to administrators at all levels who seek to improve instruction: influencing decisions over program and symbolic leadership. In the final analysis teachers will determine how teaching takes place, but administrators can shape that process by ensuring that the right people teach "the right stuff." Beyond that, just as students often learn more when teachers believe they can learn, teachers may teach better when their administrators believe they are professional instructors. This is a central aspect of facilitative leadership.

The low goal consensus in secondary schools raises important questions about how to define an "effective school." The current definition is a
very special one that focuses on a single content area (basic skills) for a limited clientele (the urban poor). Public schools have a variety of other important goals. They prepare children for the world of work and for their roles as citizens in a democracy; they are also expected to facilitate the development of children's self-concepts. In addition to the urban poor, schools are expected to serve the working class, the middle class, and the affluent. The apparent importance of goal consensus implies that creating "effective schools" requires more than technical fixes; it also calls for choices that may make some schools less effective at some of the things they have traditionally done. This is especially true of secondary schools with their broad mission. The value decision that in high school staff seem to be faced with is whether they are willing to stop doing some of the things they do now in order to do other things better.

Finally, although we have suggested ways to rethink how climate, school objectives, and leadership can contribute to achievement at the secondary level, we would emphasize that it is too early to draw conclusions for action from the school effectiveness research. Most of the studies have been conducted at the elementary level, and there are systematic organizational differences between levels that seem to preclude generalizing from one to the other. We now need a series of studies that ask the same questions about how to promote achievement at the secondary level. These studies should benefit from the methodological lessons learned from the earlier school effectiveness research and be sensitive to the broad goals and departmentalized structure of secondary schools.
1. The preparation of this paper was supported by funds from the National Institute of Education, grant No. NIE-G-81-0030. Neither NIE nor RBS is responsible for the opinions expressed in this paper.


5. D. Clark, L. Lotto, & M. McCarthy, "Factors Associated with Success." and R. Edmonds, "Effective Schools."


7. D. Clark, L. Lotto, & M. McCarthy, "Factors Associated with Success."


10. The statistical technique employed is Kendall's Coefficient of Concordance (W). A score of 1.00 is indicative of perfect agreement and that of 0.00 of randomness.

11. N. Gross and R. Herriott, Staff Leadership.
12. G. Austin, "Exemplary Schools and the Search for Effectiveness."