ABSTRACT

A number of researchers, as well as practicing teachers and administrators, have reached similar conclusions about what makes a school effective: (1) the behavior of teachers, administrators, and students; (2) the quality, as well as the quantity of effort, materials, and time; and (3) the curriculum—both what is taught and how it is taught. The social organization of an effective school promotes school-wide conditions for teaching and learning: clear academic and behavioral goals, discipline, high expectations, teacher efficacy, caring, rewards, leadership, and community support. Instruction and curricular conditions involve time on task, homework, student evaluation, variety of teaching strategies, and student responsibility. The cumulative, or synergistic, effects of these characteristics may be very significant; a critical mass of these conditions is labelled organizational efficacy. Further research is needed in order to identify the contributions of each of these factors or combinations of them in successful schools. (GDC)
Organizational Efficacy as a Research Focus for School Improvement

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For the past six years I have been reviewing the research literature to determine what, if anything, makes some schools and teachers more effective than others. Happily, there is emerging from such research a variety of clues which, when put together into a coherent whole, seems to make a great deal of intuitive sense. What is particularly pleasing is that different researchers, in a variety of studies, are reaching similar conclusions about effective schooling. Furthermore, these conclusions are reinforced by school teachers and administrators who bring to research programs the critical eyes of school experience. This conjunction of researchers' knowledge and professional educators' wisdom increases the face validity of the findings but is only a beginning in understanding the casual relationships required in understanding what makes an effective school.

Three powerful facts have emerged. First, people run schools. How teachers, administrators, and students behave in a school setting matters and counts heavily toward determining a school's effectiveness. Second, quality and not just quantity of effort, materials, and time is what counts. Previously measured factors such as the total number of books in the school library, dollar amount spent per child, and the average number of years of teacher experience have been shown to account for little
difference between more and less effective schools. Third, the curriculum of the school, which includes both what is taught and how it is taught, is important.

**Attributes of Effective Schools**

Table 1 lists two sets of attributes associated with most effective schools. Under the heading of "Social Organization" are listed those characteristics which pervade the school building. These attributes (Clear Academic and Social Behavior Goals; Order and Discipline; High Expectations; Teacher Efficacy; Pervasive Caring; Public Rewards and Incentives; Administrative Leadership; Community Support) help promote school-wide conditions for teaching and learning across all classrooms. In essence, these are necessary social conditions which help individual teachers and students to excel.

The second heading, "Instruction and Curriculum," subsumes those characteristics which are found in the most effective classrooms. These attributes (High Academic Learning Time; Frequent and Monitored Homework; Frequent Monitoring of Student Progress; Tightly Coupled Curriculum; Variety of Teaching Strategies; Opportunities for Student Responsibility), in the context of the previously mentioned social organization factors, help promote the classroom conditions for maximum student engagement with purposeful learning activities. Please note that the line between the two sets of conditions ("Social Organization"
and Instruction and Curriculum") is not hard and fast. In fact, the two sets are overlapping and interactive, complementary and reciprocal. Clear school-wide goals, for example, may not only help generate community understanding and support, but also they allow individual teachers to assess more accurately the fit between their expectations for students, students' expectations of themselves, and the curriculum.

Table 1
ATTRIBUTES OF EFFECTIVE SCHOOLS

<table>
<thead>
<tr>
<th>Social Organization</th>
<th>Instruction and Curriculum</th>
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<tbody>
<tr>
<td>Clear Academic &amp; Social Behavior Goals</td>
<td>High Academic Learning</td>
</tr>
<tr>
<td>Order &amp; Discipline</td>
<td>Time (ALT)</td>
</tr>
<tr>
<td>High Expectations</td>
<td>Frequent and Monitored</td>
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<tr>
<td>Teacher Efficacy</td>
<td>Homework</td>
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<tr>
<td>Pervasive Caring</td>
<td>Frequent Monitoring of Student Progress</td>
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<tr>
<td>Public Rewards &amp; Incentives</td>
<td>Tightly Coupled Curriculum</td>
</tr>
<tr>
<td>Administrative Leadership</td>
<td>Variety of Teaching Strategies</td>
</tr>
<tr>
<td>Community Support</td>
<td>Opportunities for Student Responsibility</td>
</tr>
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CUMULATIVE EFFECTS

Each of the above attributes has been identified in effective school studies. However, it is important to note that simply developing one, two, or three of these characteristics at random would not necessarily result in a more effective school. The important conclusion to be drawn from the research is that it may be the cumulative effects of these conditions that have payoff. Although no one has shown which ones or how many of the above conditions are necessary and sufficient to guarantee an effective school, observers of effective schools suggest that there is an element of synergy. That is, it seems many things have to be done at once to do one thing well. It would be folly, for instance, to believe that simply increasing teacher expectations for students would necessarily lead to increased academic learning time or teacher efficacy. But, in some combination, some quality and quantity of these attributes reach a critical mass of conditions which promote student achievement. It is this combination, this critical mass of conditions which I label "organizational efficacy" and it is this construct which I believe needs to be more thoroughly developed and investigated by the U.S. Department of Education. What I am suggesting is rather complex and will require a disposition more toward qualitative rather than a quantitative assessment of schooling. Which agency tackles this issue (e.g. The National Center for Educational Statistics; National Institute of Education; Fund for the Improvement of Post
Secondary Education) is a policy question to be determined later.

School improvement efforts over the past decades, often referred to as "reform movements", have variously emphasized: Curriculum content and pedagogy, e.g., "new" science, math, and social studies; Back to Basics; Technology, e.g., television, calculators, and computers. We see a combination of these foci emerging in the school effectiveness literature and the addition of the more recent concern for selection, training and retention of teachers. I think the schooling effectiveness research provides a new lens through which to view the problem of educational improvement and it is in the context of that literature that I believe the concept of organizational efficacy resides and must be tapped if we are to move to a more complex understanding of improving schools.

Each of the attributes above is by itself worthy of serious consideration and each has been treated separately during the past decades. But what I'm suggesting here is that it is the interaction of all of these ingredients, the cumulative effect, the synergy created by the interactions that will determine if a school improvement effort results in significant change in student learning. To put it in more concrete terms, I am suggesting, for example, that we could triple teacher salaries tomorrow (which we might want to do on moral grounds), yet no increase in student achievement would occur. Or, if we required teachers to have Ph.D.'s in subject matter content as a substitute for present
certification requirements, and these teachers had to face the same school conditions they face now, it is doubtful that student achievement would increase.

I am talking about more than the culture of the school or its ethos, although these are important factors. I am also talking about a school's capacity to not only change itself once (its values, expectations, standards, use of time, curriculum, etc.) but to change constantly, as a condition of organizational existence. A school organization which is never totally satisfied with itself will strive to improve continuously and will create an assessment system which allows its personnel to not only monitor student learning but also monitor the organization's own capacity to change. An organization in such a continuous improvement state is like a spinning top—the gyroscopic force of motion is itself a form of stability. This dynamic aspect of an effective school organization is what Bruce Joyce and I refer to as "homeostasis of change" in our recent book *The Structure of School Improvement*.

Organizational life generates homeostatic forces, that is, forces that tend to stabilize patterns of behavior and keep them within a normative range. Homeostatic forces are similar to those physiological mechanisms in the human organism which keep life support functions within a normal range. In the social domain homeostatic forces resist attempts at change, precisely because it is their function to prevent changes that might endanger some
essential aspect of life in the institution. Learning to live within any organization generates homeostatic pressure, and schools are no exception. The cellular model of the school in which individual teachers hold sway over particular domains and functions (the third grade, sophomore English, etc.) has greatly affected the school's receptiveness to initiatives for improvement. Inside these cells there is considerable autonomy. Most teachers work in relative isolation, with almost total operational authority over the domains to which they have been assigned. Administrative coordination in most schools emphasizes management matters such as attendance, record keeping, transportation scheduling, the cafeteria, and disciplining specific children, with much less attention to curriculum and instruction. Teachers overtly complain about their isolation but nonetheless often struggle to maintain it because, within their domain, roles are well defined and outside there is a very unpredictable milieu. They prefer social interchange which does not directly challenge their functioning.

In most schools there is a tacit understanding between administrators and teachers that their respective domains are not to be encroached on. Informal sanctions are applied to individuals who violate the norms of privacy in the classroom, or attempt to generate systematic change that affects working conditions. Teachers apply social pressure to principals to avoid direct supervision and possible changes. Similarly, principals
expect to manage logistics and community relationships with a minimum of collective decision making.

Homeostatic forces are brought into play when "change agents" enter the system. The chief homeostatic mechanism is informal social pressure. Teachers in most schools are not well organized in terms of formal collective decision making but they are very well organized in terms of generating negative social pressure. For example, if principals wish to visit their classroom and offer clinical support, teachers' primary mode of counterattack is to disparage them and suggest that they are not competent to carry out clinical functions. If a curriculum change is initiated by central office personnel, resisting teachers dismiss it as "theoretical nonsense." University professors are regarded by many as "uselessly abstract" and innovators as "faddists." Disparagement is not reserved solely for outsiders who would bring innovation into the scene but is also directed toward other teachers daring enough to innovate. In many schools the innovative teachers have become social isolates.

The combination of autonomy in the classroom, relative lack of formal structures for decision making, low levels of supervision, and the use of informal social pressure to maintain classroom privacy and resist collective decision-making, result in paradoxical findings regarding teachers' feeling of efficacy. Surveys report that many teachers believe they have great autonomy within the classroom but are powerless with respect to overall

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district and schoolwide decision making. In most schools and
district teachers are relatively powerful within the classroom but
experience low levels of involvement at other levels of the
organization. The isolation of the classroom increases teachers'
power within it while reducing their power outside it.

This duality presents a serious problem because the effective
school research suggests that school improvement requires
collective activity. Any attempt to create a better environment
for education will have to decrease isolation, increase
cooperative planning, and sharply lengthen the amount of time in
meetings. There will be a corresponding lessening of the autonomy
of the classroom and an increase in teachers' efficacy in
schoolwide and district planning. Unless collective activity
becomes the norm homeostatic forces reign and the move toward
increased organizational efficacy is stifled. Because homeostatic
forces are usually more powerful than innovative forces at every
level of education, ad hoc structures have to be created to
promote innovation and to protect against homeostatic forces. In
the absence of an executive role that promotes innovation, the
necessary conditions (collective ownership, marshaling of
resources, development of training, and community involvement)
have to be created each time a decision to innovate is made and
these conditions have to be sustained if the innovation is to
persist.
To eliminate the need for ad hoc executive and protective authority calls for a substantial organizational change, one that permits reasonable and continuous innovation to take place. The condition that must be created is a homeostasis of change, a condition in which organizational stability actually depends on the continuous process of school improvement. Innovations, occasionally large but mainly small and practitioner induced, need to be normalized. To make this form of organizational efficacy happen is no small order and there are no "five easy steps" to success. Organizational efficacy occurs, as I suggested above, when a school attains both a particular level of excellence in each of the above attributes and the ability to improve continuously.

How to Assess School Organizational Efficacy

Organizational efficacy is obviously linked to specified outcomes. Since a school's purpose is multi-facted, ranging from basic skills, to critical thinking, to citizenship skills and values, these purposes will have to be carefully articulated and criteria for assessment specified. But that is precisely the function of the "clearly stated goals and purposes" in the schooling effectiveness literature. And, we need to continue to
debate the issue of schooling priorities in a technological society, but that is not the purpose of this paper.

The quantitative data already being gathered by a variety of agencies, including the National Center for Education Statistics, is a necessary but not sufficient condition for the assessment of organizational efficacy. While standardized student achievement measures across schools tend to be minimalistic, they provide a beginning, common basis for comparison of effects across schools, whose purposes and student populations are avowedly similar but whose effects are different. Such data, however, tend toward basic skills and rarely, if ever, tap the higher order learning involving analytical thinking, for example, which we hear is increasingly important in a world of ubiquitous data. What we need in addition, are hundreds of in-depth case studies such that each study can help illuminate the meaning of organizational efficacy for a particular school and help us generalize to that level of a critical mass of attributes needed under different conditions to achieve specific purposes for any school.

The ways in which the "effectiveness" variables work in schools is not easily quantifiable. Up to now it has been difficult to assess to what degree administrative leadership, for example, accounts for a school's efficacy versus, let's say, high expectations or a tightly coupled curriculum. Likewise, there has been no way to tell whether good instructional practice can compensate for poor materials or good materials for poor
instruction. In short, the relative importance of each variable is unknown.

The search for the degree to which each variable is applicable and how it contributes to effective schooling ought to go on. I suggest that a concurrent research effort should concern itself with the more synergistic impact of the collective set of effective school variables, a set I am labeling organizational efficacy. Such an effort would require hundreds of case studies rather than the use of standardized tests. Several years ago Tomlinson pointed out that we should take comfort from the emerging evidence:

> It signifies a situation we can alter. The common thread of meaning of all that research has disclosed tells us that academically effective schools are "merely" schools organized on behalf of the consistent and undeviating pursuit of learning. The parties to the enterprise—principals, teachers, parents, and by fait accompli, students—coalesce on the purpose, justification and methods of schooling. Their common energies are spent on teaching and learning in a systematic fashion. They are serious about, even dedicated to, the proposition that children can and shall learn in schools. No special treatment and no magic, just the provision of the necessary conditions for learning.

Focusing on "just the provision of the necessary conditions for learning" is to focus on organizational efficacy. To do so we
will need "thick" descriptions of school reality which only case studies provide.

An example here may help. Several years ago I visited the North Carolina High School of Math and Science. There one sees a small residential public school with all of the effective school attributes in place and a selected group of students with high motivation and high past achievement. In sum, the conditions of teaching and learning in this school are optimal and unique to public schools - small classes, fewer classes to teach, extensive teacher preparation time, adult excitement, opportunities to work with individual students, etc. The fact that this school achieves so well is not surprising but it is also not by chance. The monetary and time resources, the commitment of personnel, and the willingness to improve constantly, all combine to create an organizational efficacy which can, I think, be explained as a contributor beyond the fact of having selected the best students in the state. Indeed, the students, who are juniors when they enter, testify to extreme differences in the comparison between their old high schools and this one, exclaiming that "I never knew how much there is worth learning" and "I never knew how much I could learn."

What an assessment of organizational efficacy can do through the case-study method would be to inform us of what school conditions together seem to explain significant and pervasive student achievement, not to mention student and faculty
satisfaction. Nor should this type of study be limited to public and private K-12 schools for a great deal of schooling is now being carried out by private and sometimes federally funded job training centers whose organizational efficacy too can be made more effective.