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# **Review of Research on Effective Schools**

## **Abstract**

*Effective schools have been defined in terms of both academic achievement and character development; a definition which combines both concepts is most acceptable. Ten content and process factors of effective schools have been identified. Schools as organizations are paradoxical in being both loosely coupled and tightly coupled; effective schools have strong cultures, a process factor, and are therefore tightly coupled. Strong supportive school leadership by the principal mainly is the most important content factor of effective schools. Strong cultures permit principals to realize the main focus of effective schools while permitting much teacher autonomy. Effective principals promote strong cultures but also have roles of instructional leadership, internal change agent, program improver, and systematic problem solver.*

## **Résumé**

*Une bonne école se définit à la fois sur la base des résultats et du développement du caractère des ses élèves; une définition qui associe ces deux concepts et tout à fait acceptable. Dix facteurs structurels et méthodologiques des bonnes écoles ont été délimités. En tant qu'organisations, les écoles présentent le paradoxe d'être à la fois lâchement ou étroitement associées; les bonnes écoles ont une culture solide, un facteur méthodologique, et sont donc étroitement associées. Le dynamisme de la direction de l'école constitue le principal facteur structural d'une bonne école. Une solide culture permet au principal de réaliser l'objectif central des bonnes écoles tout en offrant une grande d'autonomie aux professeurs. Un bon principal préconise une culture solide, mais il doit également faire preuve d'un ascendant pédagogique, être un agent de changement interne, contribuer à l'aménagement des programmes et savoir résoudre les problèmes de façon systématique.*

### Effective Schools Research

Coleman and his colleagues, in 1966, reported that socioeconomic factors were linked in a strong relationship with the academic achievement of students; when socioeconomic factors were statistically controlled, the differences between schools "accounted for only a small fraction of differences in student achievement" (p. 21). About a decade later it was reported that family background and "cognitive skills" were major determiners of student achievement and that "school quality has little effect on achievement" (Jencks, Smith, Ackland, Bane, Cohen, Gintis, Heyns, & Michelson, 1972, p. 158). Conclusions such as these were probably contributing factors to the proliferation of research on school effectiveness during the past twenty years. The conclusion from school effectiveness research has been that differences among schools do affect students' academic achievement.

While the outcomes of schooling have not always been given in terms of student achievement, in the majority of school effectiveness studies an effective school has been defined exclusively in terms of student academic achievement often as measured on standardized achievement tests (Edmonds, 1979, 1981, 1982; Goodlad, 1976, 1984; Phi Delta Kappan, 1980; Teddie, Falkowski, Stringfield, Deselle, & Garvie, 1982-84; Weber, 1971;).

In one set of studies an effective school has been defined in terms of character development (Wynne, 1981). The studies were conducted during the period 1970 to 1980 by undergraduate and graduate students to determine effective schools in the Chicago area. Based on data from the studies, Wynne contended that academic proficiency can only be achieved by character building, not academic achievement, and character building was considered to be the primary aim of schooling.

In a limited number of studies an effective school has been defined in terms of attendance, delinquency, general behaviour, and attitudes of students as well as in terms of student achievement (Brookover & Lezotte, 1979; ILEA, 1986; Rutter, Maughan, Mortimore, Ouston, & Smith, 1979). This definition, in which the outcome of an effective school is stated in terms of both student achievement and character development, is considered to be the most acceptable.

School effectiveness studies have not only provided definitions of an effective school or perceived desirable student outcomes in good schools but the characteristics or the common factors of an effective school have been identified as well. Ten school effectiveness factors have been identified (Downer, 1989); these may be grouped into content or organizational factors (Fullan, 1985; Purkey & Smith, 1983) and process factors (Brookover & Lezotte, 1979; Rutter, Maughan, Mortimer & Ouston, 1979; Fullan, 1985).

Content factors include: effective teacher characteristics and behavior; strong supportive school leadership; academic emphasis; effective instructional strategies; good home-school-community relations; and positive external relationships with board and board office personnel. Process factors include: clearly articulated goals, objectives, mission; decentralized decision-making and collaboration; high student expectations; and strong school culture.

The major criticisms of the school effectiveness research include: small samples limited to urban elementary schools; errors in the identification of effective schools; inappropriate comparisons or none at all; achievement data aggregated at the school level; and the use of subjective criteria in determining school success (Gray, 1981; Purkey & Smith, 1983; Rowan, Bossert, & Dwyer, 1983).

Fullan (1985) criticized effective-schools research that simply listed several content variables or criteria by which to judge effective schools. He also stated that effective-schools research demonstrates some goals (usually in reading and mathematics measured on standardized tests) can be addressed relatively successfully but it does not mean that higher-order cognitive and personal-social development goals can be achieved. His position was that effective-schools research takes a highly complex phenomenon and represents it in a vastly simplified manner. A much more complex model of school effectiveness involving both content and process variables is implied in such criticisms.

Purkey and Smith (1983) concluded in spite of the criticisms that

... we nevertheless find a substantive case emerging from the literature. There is a good deal of common sense to the notion that a school is more likely to have relatively high reading or math scores if the staff agree to emphasize these subjects, are serious and purposeful. . . expect students to learn and create a comfortable environment in which students accurately perceive the school's expectations for academic success and come to share them. (pp. 437-438)

This would seem to be a position that makes good sense. It does not rule out the notion that schools are in fact much more complex institutions with much broader agendas than is indicated by the effective-schools research; nor does it preclude the idea that there are aspects of every school that are unique. It does seem to indicate that relatively simple and narrow positive results, such as higher scores on standardized achievement tests, are possible if the school possesses certain characteristics such as that identified in the effective-schools research. The leadership role of the principal is clearly of major importance here, both in setting goals which include increased student academic achieve-

ment and attempting to cultivate in the school factors which help ensure this will occur. To determine how goals and plans are made within schools and to examine how school factors may be cultivated to promote desirable student outcomes it is necessary to examine some of the current research on schools as organizations.

### **Research on Schools as Organizations**

Studies of schools and post-secondary institutions within the past two decades have introduced new and revolutionary ideas into organizational theory. A current view of schools is that they are loosely coupled systems (Weick, 1976) so that what happens at one level of the organization, e.g., at the level of the principalship, has very little impact or no impact at all on what goes on at another layer, such as in the classroom. Weick uses a sloped soccer field metaphor to represent a school or school system. The field is round and sloped; several coaches are scattered around; people enter or leave the game at will. Uncertainty is a major factor in such loosely coupled systems. For example, in a school the principal's and counsellor's offices are connected but relatively autonomous decisions are made by each.

Cohen, March, and Olsen (1972) in similar studies of universities concluded that they are organized anarchies characterized by problematic preferences, unclear technology, and fluid participation. The organization operates on a loose collection of ideas; there is unclear technology in that the organization manages to survive and even to produce but its own processes are not clearly understood by its members. Boundaries of the organization are uncertain and changing. These characteristics have given rise to the garbage-can model of organizational choice for such organizations (p. 3).

The view of educational organizations derived from this research is, therefore, quite different from past assumptions about the bureaucratic nature of educational institutions. If this view is accurate, it means that designations such as a good or a bad principal have no real relevance in a typical school since the principal has very little impact on the work flow within the school anyway. Research indicates that high schools may also be more loosely coupled than elementary schools. Firestone and Wilson (1983), for example, found that compared with elementary schools most high schools exhibit less consensus among teachers and less agreement between teachers and principals. In typical high schools, therefore, it would be expected that principals would have little influence on the daily work of teachers within classrooms.

Effective schools, on the other hand, appear to be paradoxical in that they are simultaneously both tightly coupled and loosely coupled (Sergiovanni, 1984). Teachers in an effective school, for example, may be autonomous in decision-making within their classrooms but may not be independent in

decision-making within the greater school context. This notion is similar to that for effective corporations which appear also to be simultaneously tightly coupled around a few main themes but loosely coupled and autonomous with respect to operation of independent subsections or units within the corporation (Peters & Waterman, 1982). In an effective school this means, for example, that a principal can have a clear and definitive influence on the program which is taught in the classrooms but teachers can independently determine their instructional method.

Effective schools have been described as bureaucracies that work (Astuto & Clarke, 1985). It has also been determined from earlier work that instructionally effective schools are ones in which individuals, units, processes, and products are tightly linked (Edmonds, 1978, 1979, 1981). In such schools if the agreed upon definition of the school, for example, is in terms of student academic achievement, then all components of the school are tightly linked and focused towards the accomplishment of this desired outcome. Such schools at the same time provide much freedom to individuals to determine how this outcome is to be accomplished.

In effective schools (or in schools which people want to make effective), content or organizational factors, such as effective teacher characteristics and behavior, strong supportive school leadership and good home-school relations would be understood "givens" which would be essential and necessary (Downer, 1989). The process factors, such as clearly articulated goals, objectives, mission, and decentralized decision-making and collaboration, are components which articulate a strong school culture and this in turn makes possible the tight linkages and the realization of the desired outcome of the school.

### **Strong School Cultures and the Impact of Effective Principals**

It is not yet clear exactly why some schools become effective but by imagining effective schools as having strong cultures (Saphier & King, 1985) helps in understanding the problem; it also directs attention to the process by which school cultures develop and are maintained. Cultural linkages or couplings include shared meanings within the school, the symbols and mottos used, and the informal communication networks. Cultures, therefore, seem to be the glue that holds schools together and make them effective. Strong cultures provide the tight links within effective schools that permit effective principals to influence and shape the instructional program and general operation of schools while simultaneously providing much autonomy for individual units and teachers within the school. Gross and Herriott (1965) concluded from an extensive study in the 1960s that elementary school principals have a limited and indirect impact on student achievement. There was no attempt in this study to distinguish effective schools from typical schools or from schools in general. The apparent contradiction, therefore, between the conclusion from this study

and the conclusions from more recent research that effective principals do influence the instructional program in effective schools is not substantiated. It is in effective schools where strong cultural linkages exist that effective principals can influence the instructional program and, hence, student achievement.

The presence of strong school leadership, especially in the instructional area, was evident in the descriptions of effective schools given by Rutter et al. (1979) in Great Britain. Mortimore (1988), one of the co-authors of *Fifteen Thousand Hours*, emphasized that strong supportive school leadership is the major factor in an effective school. Brookover and Lezotte (1979) listed among the characteristics of improving effective schools that the principals were assertive instructional leaders and disciplinarians who assumed responsibility for evaluation of basic skills achievement. Wright and Renihan (1985) noted that school leadership, or principal leadership, is critical in influencing how effective a school will be. Geering (1980) stated that the principal is pivotal to the success of the school. Strong school leadership was emphasized and placed at the top of the list in most of the earlier school effectiveness studies (Edmonds, 1979; Phi Delta Kappan, 1980; Weber, 1971). It was noted in the Inner London Education Authority (ILEA) (1986) study in Great Britain that schools were less effective where there had been no change of head for a long period. One conclusion from the study was that principals or heads were less effective if they had been in the job for less than three and more than seven years.

Lipham (1977) stated that the principal is a significant internal change agent and a crucial linkage agent for the school. Fullan (1982, 1985), in giving a summary of research related to effective principals, concurred with this view stating that the key to successful curriculum implementation in schools is the principal but there are direct actions required. These include communicating the curriculum, clarifying roles in the change effort, providing adequate supervision, and establishing change as a priority for the school. Whitehead, Dow, and Wright (1984) referred to principals as the gatekeepers of change since they are key agents in curriculum implementation.

Leithwood and Montgomery (1986) and Leithwood (1988) stated that principals are the key to program improvement because of their effect on student-classroom and school-wide experiences including materials and resources, time management, and the physical environment of the school. They contended that improving principal effectiveness would contribute to improving school effectiveness. This concept of the principal's role in school improvement focuses on the problem-solving behaviour of the principal but it also provides a relatively complete explanation of structures and processes associated with such behaviour, i.e., on what principals do to improve schools. A Level 4 principal, or systematic problem-solver, is considered to be highly effective. Goals are selected from a variety of sources and are used for planning.

There is an attempt to influence all factors that may have an impact on student learning; expectations are derived from research and professional judgement. A wide variety of strategies is used to achieve goals and multiple forms of decision-making are used in attempting to achieve goals.

Goals of effective principals are in terms of orientations towards students, teachers, and the larger school system and they are coincident with the stated purposes of effective schools. Effective principals place the achievement and the happiness of students first in their priorities. The primary orientation of the relationship of the effective principal towards teachers centres on the task of improving the school program. There is an attempt to balance attention towards instructional leadership, routine administration, and human relations.

### Conclusions

The following conclusions are derived from a review of research on effective schools and from information which is beginning to emerge on the cultures of good schools and on the role of the principal in good schools:

1. Effective schools are commonly defined in terms of student achievement or character development; the preferred definition is a combination of both concepts.
2. Content or organizational factors of an effective school include: effective teacher characteristics and behavior; strong supportive school leadership; good home-school-community relations; academic emphasis; effective instructional strategies; and positive external relationships with board and board office personnel. These are essential givens in a good school and there may be others.
3. Process factors include: clearly articulated goals, objectives, mission; decentralized decision-making and collaboration; and high student expectations. These serve to articulate a strong school culture in a good school.
4. Effective schools are paradoxical in that they are simultaneously both tightly coupled and loosely coupled. The school personnel operate based on a small number of themes agreed upon by all within the broader school context; but there is considerable freedom as to how to serve these themes and to accomplish the school's major purpose as embodied in the definition.
5. Strong cultures within schools determine the tight coupling or linkages which include the shared meanings or themes as manifested by the mottos and symbols and the informal communication networks.
6. Strong school leadership is the most important content or organizational factor of an effective school. Effective principals have a multitude of influences on the school chief of which is the cultivation of a strong school culture. This includes articulation of shared meanings or themes as well as the factors of the school or the conditions by which the main purpose can be realized.

Other influences of good principals include: (a) assuming instructional leadership, especially in the area of basic skills; (b) assuming the role of internal change agent, especially as it relates to curriculum implementation; (c) ensuring program improvement by paying attention to providing materials and resources, time management, and the physical environment of the school; and (d) playing the role of systematic problem-solver.

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