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ABSTRACT

Programs of school improvement based on characteristics of effective schools as identified by school effects researchers have proliferated in recent years. This paper describes major school improvement programs now underway throughout the United States: (1) programs organized and administered within schools and school districts in New York City; Milwaukee, Wisconsin; St. Louis, Missouri; New Haven, Connecticut; and Chicago, Illinois; (2) programs administered by state education agencies in Connecticut and New Jersey; and (3) programs of research, development, and technical assistance at Kent State University (Ohio), the University of Michigan, and Michigan State University. All the programs described are school-based, and while they advocate increased financial support for schools, all focus on more efficient use of existing resources. Moreover, all use increased achievement for underprivileged children as the measure of gain. (Author/TE)

Occasional Paper No. 67

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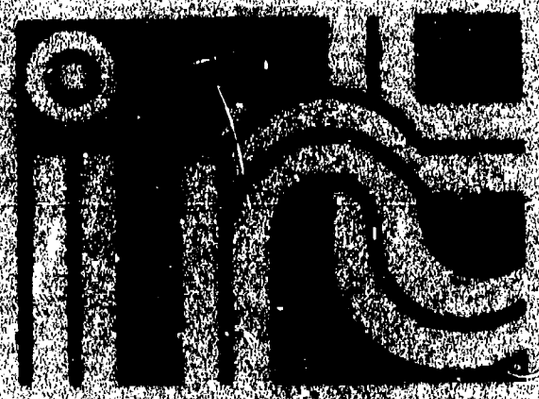
Ronald R. Edmonds



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Abstract

Programs of school improvement based on characteristics of effective schools as identified by school effects researchers have proliferated in recent years. This paper describes major school improvement programs now underway throughout the United States: (1) programs organized and administered within schools and school districts in New York City, Milwaukee, St. Louis, New Haven, and Chicago; (2) programs administered by state education agencies in Connecticut and New Jersey; and (3) programs of research, development, and technical assistance at Kent State University, the University of Michigan, and Michigan State University.

AN OVERVIEW OF SCHOOL-IMPROVEMENT PROGRAMS[1]

Ronald R. Edmonds[2]

There is an interesting aspect to the present professional discourse on programs of school improvement. The Equal Educational Opportunity Survey (Coleman, Campbell, Hobson, McPartland, Mood, Weinfeld, & York, 1966) concluded that family background was the principal determinant of pupil acquisition of basic school skills. Since then, American educators have cited this report to justify the view that how well children do in school derives primarily from their family background. Coleman et al. (1966), Mosteller and Moynihan (1972), and Jencks, Smith, Acland, Bane, Cohen, Gintis, Heyns, and Michelson (1972) have been foremost among a large group of social scientists who, in the 1960s and 70s, concluded that family background was not only a correlate of pupil performance but the major determinant of achievement.

Thus compensatory education dominated programs of school improvement throughout the 1960s and 70s, chiefly through Title I of the Elementary Secondary Education Act. Students from low-income families were taught to learn in ways that conformed to most schools' established ways of teaching. Because compensatory education presumes that low achievement derives from student characteristics like social class and family background, students were thus taught behaviors that would compensate for their disadvantages; no effort was made to change their schools.

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[1]This paper was prepared under contract to the National Institute of Education for presentation at a conference titled "The Implications of Research for Practice," held in February 1982 at Airlie House, Virginia. It was published in Education Leadership, 1982, 40(3), 4-11.

[2]The late Ronald R. Edmonds was an IRT senior researcher and an MSU professor of teacher education. He submitted this paper to the IRT shortly before he died, and it was published posthumously.

Over the last 10 years, another group of social scientists, led by Brookover and Lezotte (Note 1), Rutter, Maugham, Mortimore, and Ouston (1979), and Edmonds (1979), published alternative interpretations of the interaction between student achievement and family background. These educational researchers concluded that the school is the major determinant of student achievement. This "school effects" interpretation of the origin of achievement has substantially altered the professional discourse on the nature of the most appropriate programs of instruction for children from low-income families. The familial effects interpretation of the origin of achievement focuses attention on the presumed intrinsic disabilities of poor children, whereas the school effects interpretation presumes that almost all school children are educable; the school effects interpretation suggests instructional strategies that modify schools.

The school effects researchers do not reject entirely the role of family background in determining a student's achievement. While schools may be primarily responsible for determining whether or not students function adequately in school, the family is probably critical in determining whether or not students flourish there. Moreover, almost all school effects researchers support compensatory education but consider it limited as the primary instructional response to children from low-income families.

My point here is that educators are increasingly persuaded that school characteristics are important determinants of academic achievement. Since 1978, an extraordinary number and variety of school improvement programs, based on a school effects interpretation of the interaction between pupil achievement and pupil family background have begun. Such programs represent the major educational reform initiatives based on a common body of knowledge now underway in the United States. They exist because educators have

accepted, relatively rapidly, the accuracy and efficacy of the research of Brookover, Lezotte, Edmonds, Rutter, and a number of others whose studies focus on the organizational and institutional characteristics that discriminate between effective and ineffective schools.

Research on school effectiveness is complemented and reinforced by research on teacher effectiveness. Brophy (1979), Good and Grouws (1979), and Rosenshine (1978) are illustrative of a number of educational researchers whose work focuses on those teacher behaviors and classroom characteristics that describe instructionally effective classrooms. A teacher effects analysis of the interaction between pupil achievement and pupil family background parallels a school effects analysis in that both focus on aspects of the school in an attempt to explain whey some schools succeed with greater proportions of their pupil populations than other schools. School improvement programs attempt to introduce into schools those factors found to be related to school effectiveness.

In the discussion that follows, I will focus on instructional effectiveness as the measure of school improvement. Instructional effectiveness is a prerequisite to academic quality. Instructional effectiveness occurs when all students obtain at least minimum academic mastery as measured by standardized achievement tests. Academic quality occurs when students advance on measures of independent thinking, more sophisticated comprehension, and other intangible measures of intellectual gain.

It is my summary purpose to describe major programs of school improvement now underway in numerous educational settings throughout the United States. I do not claim this to be a comprehensive description of American efforts at educational reform. It is the limited purpose of this paper to note that school effects research has come to exert an extraordinary influence on a great number of programs of school improvement.

This discussion will focus primarily on elementary schools and, to a lesser extent, on intermediate schools. While there are reform efforts underway in high schools, they are not based on the fundamental and shared premises that characterize the school improvement programs in elementary and intermediate schools.

One of the most important shared characteristics of school improvement programs is their attempt to improve pupil performance on standardized measures of achievement. There are, of course, other important outcomes of schooling that are not measured by standardized measures of achievement; however, improved academic achievement undergirds and advances pupils' prospects for gain in the more exalted purposes of education (to teach citizenship, civility, and creativity).

Characteristics of Effective Schools

Several school effects researchers have independently concluded that effective schools share certain essential characteristics. I will briefly describe the characteristics I have identified (Edmonds, Note 2) because they are illustrative and have been widely disseminated. Moreover, they form the partial or entire basis for all of the school improvement programs I will describe here.

Two important caveats must precede a description of the characteristics. First, researchers do not yet know whether the characteristics cause the instructional effectiveness that characterizes effective schools. Second, the characteristics are not rank ordered. To advance effectiveness, a school must implement all of the characteristics at once.

The characteristics of an effective school are (1) strong leadership by the principal, especially regarding instructional quality; (2) a pervasive and

broadly understood instructional focus; (3) an orderly, safe climate conducive to teaching and learning; (4) teacher behaviors that convey the expectation that all students are expected to obtain at least minimum mastery; and (5) the use of measures of pupil achievement as the basis for program evaluation.

To be effective, a school need not bring all students to identical levels of mastery, but it must bring equal proportions of students in its highest and lowest social classes to minimum mastery. This measure of school effectiveness serves two broad purposes. First, it permits the middle class to establish the standard of proportionate mastery against which to judge a school's effectiveness. Second, it permits schools to be easily characterized as improving or declining as the proportion of the lowest social class demonstrating mastery rises or falls. There is no reason to recommend school improvement programs for schools that annually demonstrate an increase in the proportion of pupils in their lowest social class obtaining minimum academic mastery.

All programs of school improvement should be evaluated on at least two distinctive measures. Change in student achievement is an obvious, important measure. Of equal importance is observable change in the institution and organizational nature of a school as a function of change in principal and teacher behavior. Formative evaluation is to be distinctly preferred over summative evaluation.

It is important to note that although most changes will occur within a school, some important and desirable changes can only be made by the school board or the superintendent. Local-school designs for school improvement will from time to time reveal aspects of board policy or administrative rules that impede the plan. It is important at such times to continue the local-school plan while acknowledging that district wide changes may not occur or may take

a long time to accomplish. No local school design should depend on changes over which the local school has no control.

Three Types of School Improvement Program

Three types of school improvement program have resulted from the school effectiveness research: (1) programs organized and administered within schools and school districts; (2) programs administered by state education agencies that provide incentives and technical assistance to local schools and school districts; and (3) programs of research, development, and technical assistance, usually located at a university. The university programs tend to emphasize dissemination of the knowledge gained from research on school and teacher effects as well as description and analysis of the technology of school intervention.

There are now more than a score of urban school districts at various stages in the design and implementation of school improvement programs based on the characteristics of school effectiveness. I have chosen to illustrate these efforts by briefly describing the programs in New York City, Milwaukee, Chicago, New Haven, and St. Louis. These programs are similar in that all of them attempt to introduce into schools approaches to leadership, climate, focus, expectations, and assessment that conform to the discussion of these characteristics in the school effectiveness research literature. These programs are dissimilar in that their designs for change are different. Some of the programs invite schools to voluntarily participate, while others compel participation. Some were initiated by school officials, others by outsiders. I chose these particular programs to illustrate the range and variety of the designs for improvement and to illustrate activity in various parts of the country.

Programs Organized and Administered Within Schools and School Districts

New York City. The New York City School Improvement Project was the most widely publicized of these school improvement efforts. Between August of 1978 and February of 1981, I was the chief instructional officer of the New York City Public Schools. I therefore presided over the design and implementation of the school improvement project, which was part of an overall attempt to improve the school system's basic approach to teaching and learning.

Since 1978, there have been changes in the New York City schools in such basic areas as curricular requirements and minimum standards for pupil promotion; the school improvement project was part of overall changes in the New York City schools.

It is important to note that the New York City School Improvement Project is the most generously funded of all of the projects to be described. The project began in October of 1979 with nearly a million dollars from the Ford Foundation, the Carnegie Corporation, the New York Foundation, the New York State Department of Education, and the New York City Public Schools.

During the 1978-79 school year, about 15 persons were recruited and trained as school liaisons. Their trainers reviewed the research on school effects, taught the use of instruments for evaluating the schools, and taught the procedures to be followed for consultation with individual schools. Initially, each participating school was assigned a full-time liaison. By 1980-81, each liaison was assigned two schools. Approximately 30 schools volunteered to participate in the project.

A typical intervention consisted of the following steps: A committee of principals, teachers, and parents was formed to represent the school. This committee participated in and approved all subsequent project activities in the school. Using interviews and classroom observations, the school liaison

conducted a needs assessment of the school in order to determine the principal's leadership style, the school's instructional focus, the school's climate, the nature of teachers' expectations for pupil performance, and the role of standardized measures of pupil performance in program evaluation. On the basis of the needs assessment, a school improvement plan was developed by the liaison and the school's committee. The plan's purpose was to introduce effective school characteristics where they were absent and strengthen them where they were weak. Descriptions of supportive educational services were developed inside the school district and in greater New York City. These descriptions were used by the liaison to decide which services the school improvement plan required.

Since the plans for each school were different, it is difficult to generalize about the school interventions that resulted from the plans. Illustrative interventions included work with principals to teach them the elements of instructional leadership, seminars with teachers to improve use of achievement data as a basis for program evaluation, and development and dissemination of written descriptions of the school's major focus. All activities were designed to introduce into the school the institutional and organizational behaviors that derive from the characteristics of effective schools.

The New York City School Improvement Project is annually evaluated on measures of organizational and institutional change and measures of pupil performance on standardized tests of achievement. The Ford Foundation conceived of and funded a documentation unit to evaluate the project's outcomes and record its evolution. The achievement data for each school have shown an annual increase in the proportion of students demonstrating academic mastery. The achievement gains in the participating schools are occurring in a school district where city-wide achievement is also improving. As of June 1982,

New York City's student achievement for grades K-9 was above national norms (*New York Times*, June 17, 1982).

Milwaukee. The school improvement project in Milwaukee, Wisconsin, was based on the characteristics identified in school effectiveness research but is substantially different from the New York City program. During the 1979-80 school year, the superintendent designated 20 elementary schools to participate in the project. The 20 schools were regarded at the time as the least effective in the Milwaukee school district. The project commenced in 1979-80 and initially focused on teacher attitude toward the educability of the students, who were predominantly from low-income families.

The project, designed and implemented primarily by Maureen Larkin, curriculum supervisor for the Milwaukee Public Schools, relied solely on school district resources. Larkin's approach to staff development assumes that change in attitude precedes change in behavior. Thus the initial stages of the project critiqued variability in teacher attitude toward pupil educability as a function of pupil race and social class. One of the project's primary purposes was to bring all teachers to the attitude that all students can learn basic school skills. In close collaboration with her colleagues in the 20 schools, Larkin then proceeded to design materials that guided the schools toward obtaining an instructional focus, an appropriate climate, and other characteristics related to effective schools.

No full-time liaisons were used in Milwaukee. The outsiders working within the schools were assigned from administrative central staff in the area of instructional services. As did New York City's project, Milwaukee's focused on individual schools and tailored project activities to the unique character of each of the 20 schools. Larkin has reported achievement gains in all of the schools for each year of the project.

St. Louis. St. Louis illustrates a project initiated from outside the school district. During the 1980-81 school year, John Ervin, Vice President of the Danforth Foundation, persuaded St. Louis school officials to permit several inner-city schools to participate in a project designed to introduce the characteristics of school effectiveness. From the beginning, Ervin and Area Superintendent Rufus Young used a design focused on broad collegial participation and shared decision making.

With Danforth support, teachers and principals were chosen to visit New York City and Pontiac, Michigan. In New York City, St. Louis educators visited schools participating in the previously described New York City School Improvement Project. In Pontiac, they visited schools participating in a school improvement project based on the Brookover and Lezotte (Note 1) characteristics of school effectiveness. As a result of these visits, the St. Louis educators were able to personally describe the implementation of designs for school improvement. Thus their discussions were grounded in creditable, personal knowledge of the efficacy of the characteristics of effective schools as principal determinants of achievement.

The 1980-81 school year was invested in intense planning with the assistance of area university faculty chosen to represent the processes of change and the substantive content of the institutional and organizational behaviors associated with school effectiveness. Programs of change within the schools have begun, but the outcomes have not yet been evaluated.

New Haven. New Haven, Connecticut, illustrates a design focused on all schools within a district and under the direct supervision of the superintendent. New Haven is especially interesting because of its long association with Jim Comer of Yale.

Comer's (1980) book, *School Power*, describes a 10-year history of direct intervention in three predominantly black New Haven elementary schools. Comer's approach to school improvement focuses on educators' mental-health skills and seeks a qualitative improvement in the interactions between teachers and students, school and family, and adults and children. The New Haven schools in which Comer has worked have dramatically improved in both interpersonal relations and the quality of teaching and learning. Superintendent Jerry Tirozzi set out to build on Comer's model in an overall approach that derives from Edmonds' correlates of effectiveness.

The major differences between Edmonds' and Comer's approaches focus on tactics and outcomes. Comer's approach is grounded in the disciplines of psychology and psychiatry in that it teaches the psychological origin of pupil behavior in order to improve the quality of educator response. Such an orientation requires many educators to learn unfamiliar skills. It is significant to note that Comer's program not only raises achievement but has a desirable effect on the affective outcomes of schooling.

The Edmonds' approach is rather more modest in that its goal is increased achievement and the measure of gain is exclusively cognitive. The attempt to integrate these two approaches has not been underway long enough to permit evaluation.

Chicago. Chicago represents yet another alternative design of a program of school improvement based on the characteristics of school effectiveness. During the 1980-81 school year, the Chicago Board of Education hired Dean Robert Green of Michigan State University's Urban Affairs Program to preside over the design of a desegregation plan for the Chicago schools. Green is a national authority on desegregation design, especially designs related to

pupil placement, equitable rules governing student behavior, supplementary services, and the myriad other such elements that contribute to an effective desegregation design.

I was hired by the Chicago Board of Education to design the portion of the desegregation plan that would focus directly on matters of teaching and learning. This division of labor produced two distinct plans (Green, Note 3), both of which were submitted to the Chicago Board of Education. Green's plan focused on pupil placement and sought to accomplish desegregation. My plan was intended to standardize curriculum, emphasize achievement in evaluation, and otherwise cause the system to implement what is known about school effectiveness.

The plans were submitted to the Chicago Board of Education in the spring of 1981. The board rejected Green's plan for pupil placement and only recently submitted to the federal court a plan for voluntary desegregation. My plan for educational change was adopted by the board, submitted to the federal court, and ordered into effect in September of 1981. That was unfortunate because it permitted the inference that programs of school improvement can substitute for pupil placement plans of desegregation. Improved achievement for black students is unrelated to the legal, moral, and ethical obligation to eliminate discrimination as a characteristic of pupil placement. The Chicago Board of Education needlessly confounded the public policy discourse on school improvement and desegregation by refusing to adopt both plans, which would have advanced desegregation and achievement simultaneously.

Superintendent Ruth Love did not arrive in Chicago until after both plans had been submitted to the Chicago Board. It is therefore reasonable to expect that Love will interpret the court order in ways that reflect her formidable mastery of the various elements that advance achievement in a large urban school system.

Programs Administered by State Education Agencies

A number of state departments of education are circulating materials designed to encourage local school districts to adopt school improvement plans based on the research on school effectiveness. For example, the Missouri Department of Education has produced a film (Missouri Department of Elementary and Secondary Education, Note 4) now circulating throughout the state. More pointed activities are occurring in Ohio and Connecticut. In addition to dissemination activities, the Ohio Department of Education is offering modest financial support to Ohio school districts willing to pursue school effectiveness programs.

Connecticut Department of Education. The most formal state program is the Office of School Improvement of the Connecticut Department of Education. During the 1979-80 school year, staff of the Connecticut Department of Education spent substantial time in New York City observing the school improvement project's training program as well as liaison behavior within project schools. Connecticut was especially interested in the instruments developed to evaluate the correlates within the schools. The Connecticut State Department Office of School Improvement now offers two services to local school districts.

Districts are invited to submit designs for school improvement based on the characteristics of effective schools. Some of those designs are funded with grants from the Department of Education. Whether funded for design development or not, all Connecticut school districts may request technical assistance from the Office of School Improvement. For example, any district may ask State Department personnel to conduct a needs assessment, using evaluative instruments, in a local school. State Department personnel will also teach district officials how the evaluative instruments are used. As a result

of these activities, a number of Connecticut school districts have designed and implemented school improvement programs based on the characteristics of effective schools. The preliminary reports are enthusiastic, although no formal evaluations have yet been produced.

New Jersey Education Association. The New Jersey Education Association (NJEA) offers an interesting variation on these state programs. Officials of the state office of the NJEA were sent to New York City in 1979-80 to observe the school improvement project there. In 1980-81, the NJEA launched the Effectiveness Training Program (Note 5). Local chapters of the NJEA may request assistance from the state office to design and implement a program of school improvement. The state office sends to the local chapter a team of trainers to conduct needs assessments and staff development activities designed to encourage the development of local plans.

None of these state activities has produced evaluative materials that permit assessment. It would be highly desirable for all of them to provide materials consistent with the recommendations that followed the description of local school district plans.

Programs of Research, Development, and Technical Assistance

I want here to describe three university-based programs of school improvement that combine dissemination and technical assistance.

Kent State University. The Title IV desegregation assistance center at Kent State University is one such program. In cooperation with the Ohio Department of Education, Kent State has held state conferences on school improvement and is working with a number of Ohio school districts in the design and implementation of local plans for school improvement based on school

effectiveness research. Kent State has interpreted the school effectiveness research as complementary to, and supportive of, local plans for desegregation. The school improvement activities at the Kent State Desegregation Center graphically illustrate the premise that, regardless of the particular plan for desegregation, it profits all schools to exploit what is now known of the characteristics of effective schools.

University of Michigan. A similar program is now underway at the University of Michigan's Program of Equal Opportunity, which is also a Title IV desegregation assistance center. The program's dissemination materials explicitly note the complementary nature of school effects research and teacher effects research (Moody, 1982).

Michigan State University. The Institute for Research on Teaching, which is funded by the National Institute of Education, is part of Michigan State University's College of Education. Some institute faculty study the correlates of effective teaching, while others focus on the correlates of effective schools.

The College of Education has formed the Center for School Improvement to synthesize and disseminate the knowledge gained from research on effective schools and effective teaching. During the 1981-82 school year, Michigan school districts were invited to participate in a training program on the implications of this knowledge for practice. More than 100 principals, teachers, and central administrators from Michigan's 21 largest school districts are now participating in this program. These educators are designing local programs of school improvement to be implemented in one or more of the schools in their districts. The demand for training programs based on research on effective schools and effective teaching illustrates wide-spread educator interest in knowledge-based designs for school improvement.

Conclusion

These brief descriptions of local, state, and university programs of school improvement illustrate the range and variety of such programs and activities. Although they are diverse, they are all school-based programs of improvement in that the local school is the unit of analysis and the focus of intervention. All of these programs presume that almost all school-age children are educable and that their educability derives primarily from the nature of the schools to which they are sent. While all of these programs would advocate increased financial support for schools, their designs for school improvement focus on more efficient use of existing resources. Finally, all of these programs use increased achievement for children from low-income families as the measure of gain while presuming that such gains will accrue to the even greater benefit of children from middle-class families. These shared characteristics form an interesting basis for judging the long-range prospects of the programs described in this paper. I urgently recommend that all programs of school improvement provide the basis for their systematic evaluation.

I also suggest advances in educational research should be made that would profit all of these projects. More basic research on school effectiveness would reinforce the correlates of school effectiveness and further advance knowledge of effective schools. Among the fundamental research issues yet to be studied is whether the correlates of school effectiveness are also the causes of school effectiveness.

The major findings from research on schools and research on classrooms complement each other and should be integrated. From a conceptual point of view, both groups of researchers emphasize behaviors within the school as the major determinants of achievement in basic school skills. Both groups of researchers depend on the discovery of effective practice in contrast to

invention of theorized recommended practice. Furthermore, the correlates of effective schools and effective classrooms derive exclusively from the environment over which local schools have control.

These two sets of research findings complement each other and each would be strengthened by the conceptual effort to integrate their findings. For example, one of the correlates of an effective school is that the principal be an instructional leader. One of the manifestations of instructional leadership is frequent discourse between the principal and the teachers about the diagnosis and solution of instructional problems within the classroom. Principals who have intimate knowledge of the most effective techniques of classroom management and instruction would be well prepared for such discussions with teachers. It is probably safe to say that as a school acquires the characteristics of effective schools, its climate becomes more receptive to teacher use of the correlates of effective teaching.

Finally, it must be noted that only a few of the programs of school improvement reflect the findings from research on organizational change. I tried here to illustrate the range and variety of the designs for local school improvement. Those designs are disparate partly because of variability in analysis of the means by which organizational change might occur. As the progress of these projects is recorded, it would be well to note the extent to which their successes and failures derive from the presence or absence of the principles of organizational development.

This much is certain: Significant numbers of educational decision makers have concluded that the findings from research on effective schools are accurate and efficacious. Programs of school improvement based on a common body of knowledge are proliferating. This intimate interaction between research and practice validates the value of past research on schools and classrooms and encourages an expanded agenda of educational inquiry.

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