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ABSTRACT

Major local-, state-, and university-designed programs with the objective of fostering instructional effectiveness at the elementary school level are described in this paper. Instructional effectiveness is defined as a prerequisite to academic achievement in that it occurs when all students obtain at least minimum academic mastery as measured by standard achievement tests. The influence of family background and the role of school characteristics on learning achievement are discussed, followed by a review of selected programs for school improvement: (1) New York City's School Improvement Project (SIP), a comprehensive attempt to improve the school system's approach to teaching and learning; (2) a program, designed by Maureen Larkin for 20 schools in Milwaukee, to improve teacher attitudes and classroom climate; (3) a plan, by the Danforth Foundation and St. Louis (Missouri) school districts, for inner-city school improvement; (4) Yale University's association with the New Haven School District; and (5) elements of Chicago's school desegregation plan that focused on school effectiveness. Programs administered by state departments of education and by universities are outlined. Recommendations for program planning and evaluation are made. (FG)

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PROGRAMS OF SCHOOL IMPROVEMENT: AN OVERVIEW

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I regard the American experiment in mass education as the most successful in recorded history. That is so partly because the American public school has been improving for as long as it has existed. Thus while this discussion will focus on recent history it is important to note that educational reform is an old and honored American tradition.

The public school curriculum is revised and updated at least once each generation. The organization of grades is subject to almost annual review. Periodic change characterizes our approaches to teacher behavior, classroom organization and the other elements that contribute to teaching and learning. Each of these changes was preceeded by substantial criticism of the educational status quo. Thus is the public school constantly criticized even though the record shows that we teach increasing proportions of each generation better and more.

The criticism of the educational status quo that motivates school improvement efforts fixes on academic mastery among low income children. Designs for school improvement therefore focus on basic skills acquisition and measure gain by recording annual increases in proportionate mastery in the lowest social class. This is a highly circumscribed, quantitative measure of school improvement.

Much has been recently made of a perceived decline in the quality of teaching and learning in public schools. This paper will address the issue of educational quality only indirectly. This paper will directly address the conditions under which a greater proportion of students can be brought to adequate academic mastery. Evaluative studies of schools describe the consistency with which some schools demonstrate the educability of all the disparate populations now enrolled in the public schools. There are all-black schools that demonstrate the educability

of black children. There are all-poor schools that demonstrate the educability of poor children. Thus this discussion will presume that advancing the quality of instruction in a school depends partly on demonstrating that all the children in the school will profit from the school's program of instruction. Some children always do better in school than others. Advancing the quality of instruction for such children is much more likely when all other children acquire at least the minimum mastery necessary for successful access to the next level of schooling.

Thus might this discussion be said to describe instructional effectiveness as 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.

The discussion that follows will focus on instructional effectiveness as the measure of school improvement. It is my summary purpose to describe major programs of school improvement now underway in numerous educational settings throughout the United States. No claim is made here that this discussion is a comprehensive description of American efforts at educational reform. The range of educational reform efforts are many and varied. Most such efforts are also disparate and cannot be construed as a movement based on a common body of knowledge. Many such efforts are worthy and notable but the purpose here is not encyclopedic. The reader is not therefore to lament the absence of a particular program of educational reform deserving of attention. It is the limited purpose of

this paper to note that a particular body of educational 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. Almost all of the research and school improvement programs discussed in this paper were conducted in elementary schools. While there are reform efforts underway in high schools they are not based on the fundamental and shared premises that characterize the programs of improvement 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 undergrids and advances pupil prospects for gain in the more exalted purposes of education. The ultimate purpose of education is to teach citizenship, civility and creativity but those are topics for another paper.

There is an interesting aspect to the present professional discourse on programs of school improvement. The Equal Educational Opportunity Survey (Coleman et al., 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 the nature of the family from which they come. Coleman (1966) and Mosteller and Moynihan (1972) and Jencks, et al., (1972) have been foremost among a large group of social scientists who in the 1960's and 70's 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 60's and 70's and chiefly through Title I of the Elementary Secondary Education Act taught low income children to learn in ways that conformed to most schools preferred ways of teaching. Compensatory education presumes that low achievement derives from student characteristics like social class and family background. Students are thus taught behaviors that will compensate for their disadvantages. No effort is made to change school behavior. The instructional efficacy of such an approach depends partly on the accuracy of the "familial effects" analysis of the origin of achievement.

Over the last ten years another group of social scientists led by Brookover and Lezotte (1977), Rutter et al., (1979), and Edmonds (1979) have published alternative interpretations of the interaction between pupil achievement and pupil family background. These educational researchers have concluded that the school is the major determinant of 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 low income children. The familial effects interpretation of the origin of achievement focused attention on the presumed intrinsic disabilities of poor children whereas the school effects interpretation presumes that almost all school children are educable and results in instructional strategies that modify school behavior.

The school effects researchers do not reject entirely the role of the family in determining a child'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 in school. Moreover almost all school effects researchers support compensatory education but point out its distinct limitations as the primary instructional response to low income children.

The important point is that educators are increasingly persuaded that the characteristics of schools are important determinants of academic achievement. Since 1978 there has commenced an extraordinary number and variety of programs of school improvement based on a school effects interpretation of the interaction between pupil achievement and pupil family background. Such programs represent the major educational reform initiatives based on a common body of knowledge now underway in the United States. Such programs derive from a relatively rapid educator acceptance of the accuracy and efficacy of the research of Brookover, Lezotte, Edmonds, Rutter and a number of others whose studies fix 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 (1974), Good (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. More will be said of "teacher effects" later but for now suffice it to say that a teacher effects analysis of the interaction between pupil achievement and pupil family background parallels a school effects analysis in that both analyses focus on aspects of the school in an attempt to explain why some schools succeed with greater proportions of their pupil populations than others.

School improvement programs attempt to introduce into schools those factors found to be related to school effectiveness. Several school effects researchers have independently concluded that effective schools share certain essential characteristics. I will briefly describe the characteristics I have identified (Edmonds, 1979), since they are illustrative and have been widely disseminated. Moreover these characteristics form the partial or entire basis for all of the programs of school improvement that will be described in this paper.

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

The characteristics of an effective school are (1) the leadership of the principal notable for substantial attention to the quality of instruction, (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 the school must bring equal proportions of 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, this measure permits

schools to be easily characterized as improving or declining as the proportion of the lowest social class demonstrating mastery rises or falls. Thus there is no reason to recommend programs of school improvement for schools that annually demonstrate an increase in the proportion of their lowest social class pupils obtaining minimum academic mastery.

Three types of school improvement programs have resulted from the school effectiveness research. There are programs organized and administered within schools and school districts. Several such programs will be described later. Other programs are administered by state education agencies which provide incentives and technical assistance to local schools and school districts. In the third category are programs of research, development and technical assistance usually located in 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 of the design and implementation of programs of school improvement based on the characteristics of school effectiveness. I have chosen to illustrate these efforts by briefly describing the programs in N.Y.C., 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 research literature on school effectiveness. 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 programs were initiated by school officials while others were initiated

by outsiders. The particular programs were chosen to illustrate the range and variety of the designs for improvement. The programs were also chosen to illustrate activity in various parts of the country.

The New York City School Improvement Project (SIP) is the most widely publicized of these school improvement efforts. Between August of 1978 and February of 1981 I was chief instructional officer of the New York City Public Schools. I therefore presided over the design and implementation of SIP 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 N.Y.C. schools in such basic areas as curriculur requirements and the minimum standards for pupil promotion. Thus SIP has been part of overall changes in the N.Y.C. schools.

It is also important to note that SIP was and 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 of support provided by the Ford Foundation, the Carnegie Corporation, the New York Foundation, the New York State Department of Education and the New York City Public Schools. Approximately thirty schools have participated in the project.

During the 1978-79 school year about fifteen persons were recruited and trained as school liasons. The training reviewed the research on school effects, taught the use of instruments to evaluate the schools and trained the staff in the procedures to be followed in their consultation with individual schools. Initially each participating school was assigned a full-time liason person. By 1980-81 each liason was assigned two schools. All participating schools were volunteers.

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 of, all subsequent project activities in the school. Using interviews and classroom observations the school liason conducted a "needs assessment" of the school in order to determine the principal's style of leadership, the instructional focus of the school, the climate, the nature of teacher expectations of pupil performance and the role of standardized measures of pupil performance in program evaluation. On the basis of the needs assessment a plan of school improvement was developed by the liason and the school's committee The purpose of the plan was to introduce the effective school characteristics where they were absent and to strengthen them where they were weak. Descriptions of supportive educational services were developed inside the school district and in greater N.Y.C. These descriptions were used by the liason to decide which services were required by the school improvement plan.

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 school use of achievement data as a basis for program evaluation; developing and disseminating written descriptions of the school's major focus. All activities were designed to introduce into the school the institutional, organizational behaviors that derive from the earlier description of the characteristics of effective schools.

The N.Y.C. School Improvement Project is annually evaluated on measures of organizational, institutional change and measures of pupil performance on standardized tests of achievement. The Ford Foundation

conceived of and funded a "documentation unit" whose job is to evaluate the outcomes of the project and to record the evolution of the project. The achievement data for each school have shown an annual increase in the proportion of students demonstrating academic mastery. The gains in achievement in the SIP schools are occurring in a school district where city wide achievement is also improving. As of June, 1982, N.Y.C. K-9 achievement was above national norms (New York Times, June 17, 1982).

The school improvement project in Milwaukee, Wisconsin is based on the characteristics identified in school effectiveness research but is substantially different from the New York City project. During the 1979-80 school year, twenty elementary schools were assigned by the superintendent to participate in this project. The twenty schools were regarded at the time as the least effective in the Milwaukee school district. The improvement project was primarily designed and implemented by Maureen Larkin and relied solely on school district resources. The project commenced in 1979-80 and initially focused on teacher attitude toward the educability of the predominantly low income students in the twenty schools. 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 teacher's to the attitude that all students can learn basic school skills. In close collaboration with her colleagues in the twenty schools Larkin then proceeded to design materials that guided the schools toward instructional focus, appropriate climate and other factors related to effective schools. No full-time liasons were used in Milwaukee. The outsiders working within the schools

were assigned from administrative central staff in the area of instructional services. As in N.Y. the Milwaukee project focused on individual schools and tailored project activities to the unique character of each of the twenty schools. Larkin has reported achievement gains in all of the schools for each year of the project.

St. Louis illustrates a project initiated from outside the school district. Druing 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 have used a design focused on broad colleaguial participation and shared decision making. With Danforth support teachers and principals were chosen to visit N.Y.C. and Pontiac, Michigan. In N.Y.C. these St. Louis educators visited schools participating in the School Improvement Project. In Pontiac they visited schools participating in a school improvement project based on the Brookover, Lezotte characteristics of school effectiveness. As a result of these visits these St. Louis educators were able to personally describe the implementation of designs for school improvement. Thus the St. Louis discussions have been 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, organizational behaviors associated with school effectiveness. Programs of change within the schools has begun but no evaluation of outcomes has thus far been

produced.

New Haven, Connecticut illustrates a design focused on all schools within the 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 recently published School Power (1980) describes a ten year history of direct intervention in three predominantly black New Haven elementary schools. Comer's approach to school improvement focuses on the mental health skills of educators and seeks a qualitative improvement in the interaction between teachers and students, school and family, 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 has 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 focus on tactics and outcomes. The Comer approach is grounded in the disciplines of psychology and psychiatry in that Comer's approach teaches the psychological origin of pupil behavior in order to improve the quality of educator response. Such an orientation requires many educators to learn skills with which they are not familiar. It is equally 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 the goal is increased achievement and the measure of gain is exclusively cognitive. The attempt to integrate these two appraoches has not been underway long enough to permit evaluation.

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 Dean Robert Green of MSU's Urban Affairs Program was hired by the Chicago Board of Education to preside over the design of a desegregation plan for the Chicago schools. Green is a national authority on desegregation design especially as those designs relate to pupil placement, equitable rules governing student behavior, supplementary services and the myriad 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 1981) 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 Board of Education in the spring of 1981. The Board of Education rejected Green's plan for pupil placement and only recently submitted to the federal court a plan for voluntary desegregation. The Edmonds' plan for educational change was adopted by the Chicago Board, submitted to the federal court and ordered into effect in September of 1981. That was an unfortunate development in that 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, ethical obligation to eliminate descrimination 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 didn't arrive in Chicago till after the Green, Edmonds' 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.

The school improvement programs thus far discussed are but a few of many now underway. Our experience with implementation gives no basis for preferring any particular design. We know far more about the characteristics of school effectiveness than the means by which they come to describe a school. Despite that it is possible to make summary observations of potential use to all programs of school improvement.

The research on the characteristics of effective schools has not yet shown some characteristics to be more important than others. Thus designs for school improvement must attend to all of the characteristics. It must be made clear that the need for change is school wide and includes both principals and teachers. All programs of school improvement should be evaluated on at least two distinctive measures. Changes in student achievement are an obvious important measure. Of equal importance are observable changes in the institutional, organizational nature of a school as a function of changes in principal and teacher behavior. Formative evaluation is to be distinctly preferred over summative evaluation. Finally it is important to note that most changes will occur within a school but 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. Thus no local school design should depend on changes over which the local school does not have control.

I want now to describe programs of school improvement administered by state 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 & Secondary Education, 1981) 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.

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 spent substantial time in N.Y.C. observing the School Improvement Project training program as well as liason behavior within project schools. Connecticut was especially interested in the instruments that had been 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. Whether funded 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 use the evaluative instruments to conduct a needs assessment in a local school. State Department personnel will perform this service and will also teach officials of the local district how the instruments are to be used. As a result of these activities a number of Connecticut school districts have designed and implemented programs of school improvement based on the characteristics of effective schools. The preliminary reports are enthusiastic although no formal evaluations have yet been produced.

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 N.Y.C. in 1979-80 to observe the School Improvement Project. In 1980-81 the NJEA launched its own Effectiveness Training Program (1981). 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 do so consistent with the recommendations that followed the description of local school district plans.

I want now to describe three university based programs of school improvement that combine dissemination and technical assistance. The Title IV, Kent State University, desegregation assistance center is one

such program. In cooperation with the Ohio Department of Education, Kent State has held school improvement state conferences and is working with a number of Ohio school districts in the design and implementation of local plans for school improvement based on the 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.

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

Finally, I want to describe activities at Michigan State University. The National Institute of Education funded Institute for Research on Teaching is part of MSU's College of Education. Some faculty of the Institute study the correlates of effective teaching while others focus on the correlates of effective schools.

The College of Education has formed a unit called the Center for School Improvement whose purpose is 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 focused on the implications of this knowledge for practice. More than 100 principals, teachers and central administrators from Michigan's twenty-one 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.

These brief descriptions of local, state and university programs of school improvement illustrate the range and variety of such programs and activities, although these diverse programs do share certain common characteristics.

These are 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 low income children as the measure of gain while presuming that such gains will accrue to the even greater benefit of middle class children. These shared characteristics form an interesting basis for judging the long-range prospects of the programs described in this paper. This discussion urgently recommends that all programs of school improvement provide the basis for their systematic evaluation.

It is equally important to suggest advances in educational research that would profit all of these projects. More basic research on school effectiveness would reinforce the correlates of school effectiveness and further advance our 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. This paper has illustrated the program uses to which the correlates of school effectiveness are being put. Basing such programs on the causes of school effectiveness would dramatically increase the resulting rate of achievement gain.

The major findings from research on schools and research on classrooms 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 recommended practice theorized to improve achievement. 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 effective schools is the principal's preoccupation with instructional leadership. One of the manifestations of instructional leadership is frequent principal teacher discourse focused on 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 discussions with teachers focused on the classroom. It is probably safe to say that as schools acquire the characteristics of effective schools they create a school climate 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. This discussion has tried to illustrate the range and variety of the designs for local school improvement. Those designs are disparate partly because of variability in their analysis of the means by which organizational change might occur. As we record the progress of these projects 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. We are thus observing the proliferation of programs of school improvement based on a common body of knowledge. 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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