The research discussed here had two primary purposes: (1) to replicate a study done by George Weber in which eight factors were hypothesized to make successful schools successful: strong leadership, high expectations, good atmosphere, strong emphasis on reading, additional reading personnel, individualization, use of phonics, and careful evaluation of pupil progress; and (2) to see if there were, indeed, successful inner-city schools in Massachusetts. Also, the study was to find out and document how these successful schools were different so that other schools would know what to do if they aspired to the same level of success. The study proceeded through three phases. The first phase called for the identification of successful and unsuccessful inner-city schools. The second phase called for defining the factors to be studied and methods for collecting and interpreting data. And the final phase, not yet completed, called for reporting findings. The set of factors studied were mostly drawn from Weber (with some wording changes), with two additional factors, related to the attributes of teachers, added: leadership, coordination, additional reading personnel, atmosphere, individualization, evaluation, expectation, use of phonics, training and experience, and, quality of teaching. However, there were no main effects on success of school for any one of these factors.

(Author/WM)
Why do some inner-city elementary schools succeed in the job of teaching children to read while most others fail? Despite the several national studies that have suggested that home influence is the predominate factor in explaining school success, are there not some in-school factors that are also important? If there are, what are they? Can their existence in successful schools and nonexistence in unsuccessful schools be documented? And, finally, are these factors transportable to unsuccessful schools?

The Massachusetts Advisory Council on Education, an independent state research agency, became interested in these questions and their possible answers about two years ago. What perked the Council's interest was a publication issued by the Council for Basic Education entitled, *Inner-City Children Can Be Taught To Read: Four Successful Schools.* The study, carried out by George Weber, not only suggested that schools do make a difference but went so far as to suggest how they make a difference. Weber noted eight factors which, in his judgment (based on his observations in four inner-city elementary schools whose students had higher than expected reading scores) made successful schools successful:

- strong leadership
- high expectations
- good atmosphere
- strong emphasis on reading
- additional reading personnel
- individualization
- use of phonics
- careful evaluation of pupil progress

While Weber's work was important, because of what it suggested schools might do to help students read at higher levels, the journalistic nature of Weber's account and the fact that he did not seek to substantiate his findings by examining unsuccessful schools, made it advisable to study his finding in a more rigorous fashion. In short, a research study carefully matching successful schools with appropriate unsuccessful schools was called for.

To do this study, the Council contracted with Educational Research Corporation (ERC) of Watertown, Massachusetts, to replicate the Weber study and to see if there were, indeed, successful inner-city schools in Massachusetts. Also, the study was to find out and document how these successful schools were different so that other schools would know what to do if they aspired to the same level of success. What the Council hoped for, and ERC agreed to do, was develop a prescription for reading success in inner-city schools.

The study proceeded through three phases, each of which will be described in this paper. The first phase called for the identification of successful and unsuccessful inner-city schools. The second phase called for defining the factors to be studied and methods for collecting and interpreting data. And the final phase, not yet completed, for reporting findings.
The first step in identifying successful and unsuccessful inner-city schools was to find city schools predominately populated by students from poor families. Starting with a preliminary identification, from ESEA Title I fiscal allocations, of the Massachusetts cities with largest number of poverty students, the study proceeded sequentially to:

- screen schools within these cities that showed high proportions (from Title I application forms) of children in that school's attendance area from low-income families.

- apply data on free lunch and milk programs to income information to develop a combined poverty index that would be more valid than using either Title I or free lunch and milk data alone.

Since the poverty data would be verified later, the study proceeded next to identify successful and unsuccessful schools from the pool of applicant schools that had passed the poverty test. Drawing upon the results of existing city-wide testing programs (although in some instances special testing was administered) the study purposely used the results of sixth graders because it was felt that tests at this grade level would assess the cumulative learning of reading through the elementary school years. Different approaches to reading and the inability of many younger children to cope with written tests dictated waiting until sixth grade when results, that earlier might have been misinterpreted, could be better judged.

From the preceding, ten city schools (in six cities) were identified where children from poverty backgrounds had standardized test results at or above national norms. Some cities which had schools meeting poverty criteria had, unfortunately, no schools with good reading scores.

Also from the same Title I, free lunch applicant pool, 10 unsuccessful, or as the study later referred to them, contrast schools were identified. While the study was able, in five cases, to identify contrast schools in the same city as the successful schools, in the five remaining instances this was not possible. Comparable to the successful schools on poverty measures, the contrast schools nevertheless averaged 1.3 grade equivalents below national norms on their reading scores. Since poverty factors had been controlled for, an examination of "other" factors that could account for the differences between contrast and successful schools was now in order.

The first step, therefore, in the second phase of the study was to describe in detail and in operational terms the set of factors to be studied in both schools. Since the study's final report will provide readers with full
descriptions of the factors it is not necessary here to more than list them:

- leadership
- coordination
- additional reading personnel
- atmosphere
- individualization
- evaluation
- expectation
- use of phonics
- training and experience
- quality of teaching

As can be seen, while most of the factors are drawn from Weber (with some wording changes), two additional factors, related to the attributes of teachers, were added. This was done simply because previous research (e.g., Coleman, Benson) had suggested some correlation between certain teacher attributes and student achievement.

Having identified the factors to be studied, the next step was to collect data about these factors. A wide array of data collection instruments were used...some borrowed...a few developed...most adapted to the needs of the study. Again, readers must be referred to the final report (expected publication date - September 1974) for details on these instruments. It will have to be sufficient at this point to simply list them by title:

- Central Office Interview
- Principal Interview
- Teacher Interview
- Reading Specialist Interview
- Librarian Interview
- Principal Questionnaire
- Reading Specialist Questionnaire
- Teacher Questionnaire
- Literature Survey
- Classroom Observation
- Learner Activity Index
- Teacher Time Log
- Reading Attitude Inventory
- Student Questionnaire

A few of the major characteristics of the data collection procedures ought to be mentioned in passing:

- data was collected "blind." That is each field investigator did not know whether he was visiting a successful or unsuccessful school.

- five visits were made to each of the ten successful and ten contrast schools...two by a reading expert, two by study staff members, and one by the assistant project director.

- the observation schedule permitted one visit from each of two different observers at different times in the same randomly selected classroom.
besides classroom observation each field investigator also planned a series of interviews with the school principals and staff, and administered the survey and questionnaire forms as previously noted. Sometimes the same questions were asked of different respondents in the interview and questionnaire so as to compare perceptions of similar phenomena.

To verify that the school pairings were comparable on external factors (a) principals were asked to supply data on racial mix, bilingualism, student mobility and so on and (b) students were asked to supply data on their home backgrounds (e.g., education of parents, parental aspirations, etc.).

As might be expected, there were difficulties in collecting some of the data and some of the data that was collected could not be taken at face value. Despite these difficulties . . . or rather because of them, the study team decided to maintain the "blindfold" approach in analyzing and interpreting the data. In addition, because so much of the data was clinical and required judgmental procedures, it was decided to attempt to make such judgments as objective as possible by adapting Delphi techniques to the judgmental process. That is, a form of collective judgment procedures was established.

The procedures called for collective judgments to be expressed on each of the ten factors on a five-point rating scale. At one end of the rating scale (assigned a point value of 5) indication was to be given that on that factor alone the school looked definitely like a successful school. On the other extreme (assigned a point value of 1) indication was to be given that on that factor the school in question definitely looked like a contrast school.

The method of making collective judgments was to be consensual. A group of judges, including those who had visited the schools, individually reviewed all the data on each school. The group then met in order to make judgments along the five-point rating scale. Discussions were held about the data as it related to each factor. At the conclusion of discussions, each judge made a rating on the scale to indicate the probability that the school was a successful school as far as the particular factor under discussion was concerned.

If all the votes agreed, then the unanimous rating became the collective rating. If the ratings differed, further discussions were held until, on repeated balloting, a unanimity was reached. The procedure was not, as can be seen, a simple averaging of individual ratings but a rating that the entire group of judges felt after discussion was the true rating.

As it came out, not only were the groups able to achieve unanimity but, in many cases, they were able to achieve, and, in fact, desired to do so, unanimity using pluses and minuses on the five-point scale. One important reason for being able to achieve consensus was the fact that at any time, the review judges could review ratings given to other schools on a given factor and, therefore, ask themselves how the current school compared to that factor. In short, the fact that comparisons and contrasts could be made without difficulty expedited the consensual approach.
The last phase of the study, as mentioned earlier, is reporting on findings. Currently, the study team is in the midst of interpreting data, and, at the same time, planning to extend the research, if proper funding can be obtained, for two more years. The need to take a longitudinal look at the schools is to see how the factors cited or combinations of these factors act over time and with changes in pupil performance. In short, are there factors or clusters of factors that move in tandem? In addition, subsequent research will seek to augment the school factors cited with additional child-centered ones (e.g., attitudes, self-image, perception of teacher, etc.). In fact, the study team has already begun to collect some of this additional information.

Although it is premature to announce any findings, the study team's analysis thus far does indicate that the identification of successful schools is not associated with the presence or absence of any of the factors mentioned. In a phrase, there were not main effects. Where a factor was present in a successful school, it was also found to be present in some of the contrast schools. Reversely, some factors were found to exist in the contrast schools and not in the successful schools.

For example:

- in one pairing an extremely high level of coordination and emphasis on reading were found to exist in the contrast school but not in its paired successful school. In fact, in this instance, the profile of the successful school looked more like what a contrast school is thought to look like!

- in one successful school, a high level of leadership, coordination, emphasis on reading and teaching quality was judged to exist but in the paired contrast, more reading personnel and a work-oriented and purposeful atmosphere existed.

- there were no clear and predominate characterizations of three factors: individualization, evaluation and expectations in any of the successful or contrast schools.

- there were twelve ratings of 4 or better (probably or definitely a successful school) in the successful schools; eleven ratings of 4 or better in the contrast schools.

- successful schools were rated below four on all factors, four contrast schools were rated below four on all factors.

To say the least, the preceding is not encouraging. It certainly does not lend encouragement to those school districts who are placing their money on Weber's findings. For if anything the study contradicts the idea that successful reading can be brought about by the introduction of set of factors, such as Weber's. More likely, there are a multiplicity of ways in which schools change or are successful. The continuation of the present research will hopefully uncover some of these ways.

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