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ABSTRACT
        This paper explores factors which may acccurt for the
translation cf research into educational policy through a case study.
The case study was conducted jointly by the School District and
Federal Reserve Bank cf Philadelphia, Fennsylvania tc determine what
variables contribute to reading achievement. Students from grades one
through four in twenty-five schools were selected tc participate in
the study. Data was based on interviews with school administrators
and teachers, and pupil records, and included informaticn about the
principal, the reading teacher, the classroom teacher ard the school
for each individual student. The prccess of planning and translating
the results of the study into educational policy initiatives is
discussed. The following factors were associated with this process:
(1) identification of clients; (2) vitality of the tcpic; (3)
participant involvement; (4) technical quality; (5) reporting
formats; (6) findings keyed to the decision process; (7) preparation
of policy makers; (8) overcoming resistance; (9) the rcle of the
ombudsman; and (10) the role cf the entrepreneur. (JCD)

Research and Evaluation in Urban Educational Policy

Michael H. Kean

INTRODUCTION

Urban school district-based research and evaluation offices have grown rapidly, almost uncontrollably, since the advent of the Elementary and Secondary Education Act of 1965. The view that evaluation, as the process of providing information for decision makers, is vital to effective school system administration has developed simultaneously with increasing Federal involvement in education, particularly in urban areas. Although the overall recognition and expansion of the roles of educational research and evaluation should be viewed positively, such rapid development does not take place without complications.

Offices of research and evaluation should function as service agencies that aid decision-making and advance instructional practices in school districts. The provision of information, whether of a contextual, formative, or summative nature, presupposes that the information will be at least potentially useful in terms of educational policy.

The focus of this paper will be upon the identification and exploration of certain subliminal factors, and the inter-relationships between them, which may ultimately account for the translation of research and evaluation findings into policy.

Three major sections follow this brief overview of the paper's structure In the first, an actual case will be presented as a subject for analysis. Of particular importance to the focus of this paper is the impact and degree of acceptance, both nationally and locally, of the study discussed in this section. It is this acceptance that relates directly to the translation of the study's findings and suggestions into school district recommendations and policy decisions.

The section dealing with Analysis will attempt to explore why this particular study had great impact, while

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other, earlier ones, did not. Finally, factors leading to policy decisions will be explored in the concluding section.

WHAT WORKS IN READING?—A CASE STUDY

Background

The results of *What Works in Reading?* (a joint School District/Federal Reserve Bank empirical study in Philadelphia) were released in June of 1979. Though controversial, the study has sparked an enormous amount of national interest and attention. The purpose of this study was to determine what makes a difference in teaching children to read.

The study had its genesis in two independent efforts by the School District of Philadelphia and the Federal Reserve Bank of Philadelphia. As part of its ongoing research and evaluation activities, the Office of Research and Evaluation of the School District of Philadelphia had conducted several studies of reading practices in recent years.

At the same time, the Federal Reserve Bank of Philadelphia was conducting a study of its own. In 1975, it published a study of achievement growth in the Philadelphia schools, which utilized econometric techniques (Summers and Wolfe, 1975). This effort was reviewed extensively, especially by economists, but was criticized from within the School District of Philadelphia. Objections were raised on both technical and social grounds. After a period of heated interactions, it became evident that the School District had no intention of utilizing this study for policy development or decision-making purposes.

In late October of 1975, the Superintendent of Schools

of Philadelphia and the President of the Federal Reserve Bank of Philadelphia were invited by the Deputy Mayor of Philadelphia to meet with him to discuss the recently released Federal Reserve Study. An agreement was reached whereby the Office of Research and Evaluation of the School District and the Research Department of the Federal Reserve Bank would meet to discuss the development of a followup study utilizing, as a base, the methodology employed by the Federal Reserve Bank, but integrating within it the concerns and learning priorities of the School District. Shortly after this meeting at City Hall, the Executive Director of the Office of Research and Evaluation and the Research Officer and Economist of the Federal Reserve Bank met to discuss the possibilities for a new study.

Key staff members from both the Federal Reserve Bank and the School District met in a series of half-day work sessions to plan the study. At the outset, the tone was cordial but guarded, and the meetings were negotiating sessions as much as planning meetings. Reasons for earlier disagreement quickly became evident. The nature of various school variables had to be clarified. In addition, differences in statistical terminology were a barrier. At one point, a staff member familiar with both multiple regression analysis and analysis of variance was brought in to "translate" the terms and concepts used. As the work sessions progressed, they brought with them a heightened awareness of each other's world. Eventually, a genuine mutual respect developed. Given what had occurred in the past, this understanding and regard were *sine qua non* for the implementation of this study.

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Overview of the Study

Some schools are more successful than others in terms of reading achievement growth from one year to the next, and in terms of annual level of achievement. Why does one school have a higher score than another? Why do some students perform better than others? By collecting measures of possible reasons, one might be able to discriminate among reasons by virtue of their degree of association with the measure of success. In short, it is possible to compute the multiple regression between the achievement measure (the dependent variable) and the estimated measures of the hypothesized reasons (the predictors or independent variables)

This study was a search for those variables that are associated with changes in achievement growth, and an attempt to describe the associations in terms of socio-economic conditions, educational inputs, and peer group characteristics. The cliche "correlation does not mean causation" is an appropriate caveat. However, in the world of educational policy, decisions must be made on the basis of the best available information. Therefore, policy implications were the end product of this study.

The rationale for the study was based in part on the notion that adding to the existing body of knowledge concerning successful practices in reading was only partially useful. The wealth of research in reading has resulted in the layering of both old and new ideas upon one another. Little attention has been paid to removing the irrelevant or unproductive Since such excess baggage is often detrimental to instruction and costly in terms of resources, *What Works in Reading?* attempted to identify variables that both did and did not make a difference in reading achievement

Schools were picked for the study by rank-ordering all elementary schools by their overall average reading scores (1975, grades 1-4) and their overall gain scores (1974-1975, grades 1-4) in reading. Ten schools at the top of both lists and ten at the bottom of both lists were selected. Five schools in the middle of both lists completed the sample of 25 schools

Though pupils in this study were from the 25 selected schools, the study involved facts about individual pupils It was the individual pupil who was the subject of this study All of the fourth grade pupils in the schools selected were in the study Fourth grade was chosen because it is the grade in which a large drop in test scores is typically observed; it is the highest grade which is found in *all* elementary schools; and the ability to read at that grade is importantly related to a student's subsequent progress.

Information was gathered for the study by teams made up of the staff of the Office of Research and Evaluation and of the Division of English/Reading Language Arts Education These teams visited the schools involved and interviewed the principal, the teachers, the reading teachers, and the reading aides. A total of 25 principals, 25 reading teachers, 94 classroom teachers, and 68 reading aides were interviewed. In addition, team members gathered large amounts of information from each pupil's records.

All of this information was checked and double-checked for accuracy and then placed on a computer file. One hundred sixty-two variables about each of the 1,828 pupils made up the computer file on which the study was based. Later, various combinations of these separate items of information increased the total number of variables about each pupil to 245

Five kinds of variables about each pupil were gathered.

variables about the principal of the pupil's school, variables about the reading teacher in the pupil's school; variables about the pupil's classroom teacher, variables about the pupil's school, and variables about the individual school. Once all of the information about each pupil was placed on computer tape, a random sample of 25 percent of the pupils was removed from the file and put aside. This was kept as a cross-validation sample, which allowed the results to be double-checked.

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Over 500 multiple regression equations were run on the large (75 percent) file This involved trying out many different combinations of facts (equations) about the pupils in order to determine which combination was most closely related to gains in reading scores After the equation that seemed to be most closely related to gains in reading scores was found, it was used on the cross-validation (25 percent) file. Findings that were the same in both cases could be reported with some confidence, those that were not, could be presented for discussion and further study.

The Study's Impact

The very day the study was presented at a public Board of Education meeting in June of 1979, it began making news. Though purely of local interest at first, it was the subject of a wire service story featured in the *Los Angeles Times* the following week. By mid-summer, over a thousand inquiries had been received.

Local television and radio stations broadcast stories on the results of the study. The three major daily metropolitan newspapers published extensive stories, each focusing on a somewhat different aspect of the study, but all covering the major findings. Following the initial local coverage and the AP wire story, a number of major educational periodicals reported the study's results. By the fall, over five thousand inquiries had been received

Perhaps the major impact of the study, however, was the appearance of a document entitled *A Blueprint for Academic Achievement* The *Blueprint*, as the document came to be known, was a 22-page draft document transmitted by the Superintendent of Schools to his Executive Cabinet for review, discussion, and refinement. The *Blueprint* was developed largely as a result of a charge to the School District's Office of Curriculum and Instruction to study "the problems of raising achievement, particularly in schools with greatest need" Unbeknownst to the authors of *What Works in Reading?* the report of the Curriculum Office was integrated with the research study by other members of the Superintendent's staff. The result was an unsuspected though pleasant surprise to the researchers, for the *Blueprint* had, indeed, drawn heavily upon their work. In his introductory memorandum, the Superintendent stated:

> I have read in-depth the research report, *What Works in Reading?* I believe it can prove to be one of the most significant reports on reading achievement in the recent history of public education, and I have included several of its recommendations in this document (1979 3)

Actually, ten of the *Blueprint's* 36 specific recommended actions flowed directly from *What Works in Reading?* with an equal number at least tangentially related to the study.

ANALYSIS

As demonstrated in the previous section, *What Works in Reading?* was not just another piece of research Unlike many studies that are politely accepted and then shelved to gather dust, this study has already had an impact The extent of that impact and the ultimate level of utilization remain to be seen It is evident, however, that *What Works in Reading?* has succeeded as a catalyst for change where other such efforts have failed Why?

There are a number of possible answers to that question, with no single explanation alone accounting for the difference My own participation in the study and in the process of its explanation and implementation lead me to suggest four possible reasons for the study's impact (1) it maximized outside involvement while establishing internal ownership, (2) it took a proactive approach to planning for change, (3) it attempted to minimize resistance to change, and (4) it attempted to build upon factors associated with research utilization

Ownership

From the outset, great care was taken to establish the study as one undertaken by the School District with assistance from the Federal Reserve Bank In spite of its potential utility, the bank's previous study had virtually no local impact because it was viewed as the work of "outsiders," unfamiliar with both education and the school system. The problems encountered in that first study were aptly summed up in an *Inquirer* feature on the role of the "outsider" economist.

> That report was attacked from all sides She was an outsider, her study uninvited "What I learned," Ms Summers says, "was when you come as a total outsider to the system, the wall is nearly impenetrable People coalesce against the outsider" (June 30, 1979)

In order to avoid the problem. Kean and Summers carefully planned the nature of the cooperative effort that was to ensue Not only was the study's ownership to be associated with the School District, but the District's Office of Research and Evaluation took great care to involve other key individuals and organizational divisions as well

The Office of Curriculum and Instruction, particularly its Division of Reading/English Language Arts, were heavily involved The Associate Superintendent for Curriculum and Instruction and the Executive Director for Reading/English Language Arts actively participated in the formulation of the problem and the preliminary study design As the work progressed, the Division of Reading/English Language Arts became even more involved, with its Executive Director and several of her key assistants playing major roles in identifying the critical variables to be studied, designing the instrumentation, and helping to define the parameters of the effort

The actual data collection procedures were cooperatively handled by supervisory staff members of both the Office of Research and Evaluation and the Division of Reading/English Language Arts The nature of such a joint endeavor amazed the former "outsider," according to the *Inquirer*

> Ms Summers was amazed by the ease of gathering data this time For her earlier study Ms Summers "went up and down, knocking on school doors, asking for the data and getting stonewalled all along the way That data came from sweat lots of sweat" It took her a year and a half to get the facts

This time, it took the school district three weeks "I almost fainted," said Ms Summers (June 30, 1979)

A final collaborative effort took place shortly before the results were publicly released The Associate Superintendent for Curriculum and Instruction and the Executive Director of Reading/English Language Arts and her staff were provided with draft copies of the report and asked to review them Their comments were shared during the course of two face to-face meetings, and in virtually all instances their suggestions were integrated within the text of the final document

Hence, the ownership of the study could be truly ascribed to both the School District's Office of Research and Evaluation and the office responsible for the programmatic area (reading) being examined

Proactive Planning

The approach discussed in the preceding section is exemplary of the proactive approach to planning associated with the study "Proactive" is used in contrast to "reactive" A common misconception is that planning, by its very nature, must be proactive The fact is, however, that a considerable amount of planning is undertaken in response to stimuli rather than for catalytic purposes The proactive approach to planning anticipates the reaction to a situation and develops a desirable positive alternative response to it The principal architects of the *What Works in Reading?* study attempted to employ a proactive approach to planning from its outset

A variety of potential problems were identified during the course of the authors' initial meetings, and each was dealt with as if the success of the entire study depended upon its resolution A host of problems were identified Areas ranging from finances, scheduling, and personnel allocation, to political reaction, protocol, and technical verification were all considered In the end, this attention to detail seemed to produce handsome results

Perhaps most crucial was the attention paid to the planning of the release of the study's results Here the "outside" partner in the study—the Federal Reserve Bank—was used as a neutral party in convening a press briefing prior to the formal public presentation The Superintendent of Schools had, of course, already been briefed, and the study had been placed on the agenda of the meeting of the Board of Education to be held the following Monday

The education writers of the city's major newspapers and all-news radio stations were invited to a luncheon at the Federal Reserve Bank, so were members of the newspapers' editorial boards The study was presented carefully and non-technically, with no limit on the time taken to answer questions Each person present had agreed in advance to a "gag rule" until after the study was released publicly Copies of the study were distributed, and all participants departed from the briefing far more knowledgeable than they would have been had they merely heard *What Works in Reading?* reviewed at a public Board of Education meeting Each member of the fourth estate also had three days to review the document and to prepare a story for "immediate" release the following week

The results were gratifying, both in terms of coverage and accuracy A particular dividend was the editorial attention paid to the study, and the support provided by the editorial writers The hoped-for results were, indeed, achieved

Minimizing Resistance

Resistance to change was identified in a previous section of this paper as a force to be contended with in planning for the translation of research and evaluation results into educational policy initiatives. The ownership, involvement, and communications strategies already described in this section doubtless helped serve to reduce some of the expected resistance. Two other related approaches may have also had a positive effect.

Almost immediately following the formal public release of the study, its principal authors began making presentations to a large number and variety of audiences. In addition, in-depth central office discussions were initiated. The Superintendent of Schools had promised at the time of the study's release to appoint a select committee to consider follow-up action. Close coordination between the Superintendent's Office and the Office of Research and Evaluation resulted in the appointment to the Committee of a broadly representative group of individuals. Organizations such as The Home and School Association, the Council of District Superintendents, Association of School Administrators, Federation of Teachers, as well as key programmatic and supportive service personnel, formed the nucleus of the committee. Though the group has moved slowly in considering the myriad options before it, its work has been both deliberate and productive.

The authors of the study attempted to be just as deliberate in their attempt to minimize the technical condescension and egocentric prescription that so often permeate major studies. They indicated that the findings presented were the ones that seemed most pertinent, and on which it was possible for the school system to take action. The findings were the result of intensive investigation using sophisticated mathematical techniques. As such, it was suggested, they should certainly be given serious consideration and thought, but should *not* be regarded as panaceas.

Figure 1

The congruence between Brickell and Aslanian's recommendations for the communication of research data and the reporting of the results of *What Works in Reading?*

Brickell and Aslanian's Recommendations	Reporting the Results of *What Works in Reading?*
Brevity	8-page Summary using bullets to highlight major points, plus 4-page Digest of Results listing findings according to each sector
Placing most technical material in appendices	Regression results and means and standard deviations included in tables at end of report. Separate Technical Report to answer technical questions and concerns
Timelines with respect to decision makers expectations	Information released according to specific planning and decision-making needs of top administration
Use of entirely non-technical language	Econometric and educationese "translated" into language understandable by lay and professional personnel alike
Provision of public presentation material to amplify executive summary	Copies of summary, instead of large graphics, disseminated at outset of each public presentation

Utilization Factors

One of the principal foci of this paper is the question, why do certain research and evaluation reports have impact upon decisions while others do not? Brickell and Aslanian's recommendations for the communication of research data, and those of Alkin et al. on factors affecting utilization, seem to apply to this case study. Though no attempt was made to tailor the means of reporting the study's results to fit Brickell and Aslanian's recommendations, the level of congruence is remarkable, as detailed in Figure 1.

The series of eight factors affecting utilization cited by Alkin et al. also bears a high degree of similarity to the concerns taken into consideration by the researchers in planning, implementing, and disseminating the results of the study. The foregoing discussion of ownership, proactive planning, and minimizing resistance to change demonstrates the attention paid to 1) setting pre-defined boundaries, 2) orienting information users, 3) the approach of the study team, 4) the study team's credibility, 5) organizational structure and relationships, 6) contextual/environmental forces, 7) report content and style, and 8) the needs and expectations of decision makers.

CONCLUSIONS

Examination of this topic, with its descriptive case study and analysis, has generated ten over-all factors associated with the translation of research and evaluation into educational policy. These ten factors certainly do not comprise a finite listing, they relate to the case studied here, but may not necessarily apply to all similar situations. Perhaps even more important, this listing may well represent only a fraction of the total range of such factors. The ten general areas are as follows:

1. *Identification of Clients* It is important to single out the specific clients and client groups who are most closely associated with the research being undertaken and most directly affected by any policy decisions likely to be developed as a result of that research. The expectations of the clients, as well as the type of information and services they require, are important considerations in focusing the research and evaluation process.

2. *Vitality of the Topic.* There are a great many topics whose thrust is so tangential to the solution of a particular problem that they will seldom generate very much interest. A topic directly related to a highly visible problem may virtually insure that the results of the study of that topic will be carefully considered. In framing a topic for study, criteria such as importance, visibility, acceptability, and understandability should be reviewed.

3. *Participant Involvement* This factor relates directly to the previous discussion of ownership. It is important to involve as many as possible of those groups who will likely be ultimately affected by the study. Involvement should be genuine, not merely "window dressing." Though this may lengthen the period of the study, it will pay handsome dividends in the long run.

4. *Technical Quality* The technical aspects of the study (in terms of research methodology, appropriate measurement techniques, and careful reporting) must be beyond reproach. Wherever possible, the study should improve upon previous major works in the area. In addition, the use of multiple measures will greatly enhance the study's acceptability.

5. *Reporting Formats* A variety of reporting formats is very necessary if a study's results are to be adequately

communicated. Since most decisions are made by laymen, the basic report should be as nontechnical as possible and should always include an executive summary and/or abstract. In addition, an illustrated, popularized version tends to be very useful in communicating with the public at large, as is the use of multimedia materials such as slides, large graphics, etc. A full technical report should be available for that small group of individuals interested in the technical specifics of the study.

6 *Findings Keyed to the Decision Process* Timing is all-important if research and evaluation results are to have genuine impact upon policy. In order to perfect such timing, it may be useful to attempt to determine the type of decisions likely to be made as a result of the study. Wherever possible, a study's results and recommendations for policy should relate to the general context of the school system and should be demonstratively cost effective and/or cost efficient.

7 *Preparation of Policy Makers* Advance briefings for key decision and policy makers are of tremendous value. Briefings should include a nontechnical overview of the specific results of the study, the relationship of those results to the needs of the system, and the specific implications for policy that seem to spring from the study. Those studies actually "commissioned" by decision makers probably stand the greatest chance of ultimately having an impact.

8 *Overcoming Resistance* The ability of the study team to anticipate potential problems resulting from their work will help reduce resistance. The degree to which resistance can be dealt with prior to its surfacing will, in the long run, minimize disruption of both the implementation of the study and the translation of its results into practice.

9 *The Role of the Ombudsman* The designation of a member of the study team as ombudsman or trouble-shooter during the study's implementation will help reduce both resistance and misunderstanding. Such an individual should initiate dialog, not wait for problems to occur. The ombudsman should attempt to work with clients prior to, during, and after implementation of the study.

10 *The Role of the Entrepreneur* Finally the entrepreneurial role is an important correlate of policy decisions. This role may be played by either the individual(s) responsible for producing the research and/or evaluative information or the decision maker ultimately responsible for translating it into policy and acting upon it. If the policy maker exhibits entrepreneurial behavior, the researcher's role is considerably simplified. Since this is not typically the case, however, it is the potential impact of the researcher's entrepreneurial acumen that will be considered here.

Within the discipline of economic development, the entrepreneur is an individual who applies a new combination of resources and technology in productive activity to effect change. The resulting change, however, is rarely only economic. It is social as well, for economic change does not occur without social ramifications. There is a great deal of similarity between the roles and characteristics of the entrepreneur and the change agent. By either classification, such an individual has been the key figure in originally unlocking the doors of development in many of what are thought of today as the world's most progressive nations. The entrepreneurial role is not only appropriate, but extremely useful in working toward the acceptance of research information and ultimately translating it into policy. In playing the role of the entrepreneur, the researcher cannot assume a neutral posture. He must, in fact, be a strong

advocate of the utilization of the information he has developed and should approach his task with an eye toward its translation into policy from the outset. It is important to remember that advocacy of the utilization of data need not compromise objectivity in the conduct of research or evaluation.

McClelland has suggested that "The successful entrepreneur ... is by definition someone who considers alternatives and consequences before they actually happen to him" (McClelland 1961:237). Organizational skills also play an important role in the entrepreneur's success. He is generally equally skilled as an administrator and as an expert in public relations.

In conclusion, it has been said that "imitation is the highest form of flattery." In the case of research utilization, however, that saying might well be revised to "institutionalization is the strongest indicator of success."

The *Blueprint for Academic Achievement* actually served to institutionalize the type of study that created much of the impetus for the *Blueprint's* initial development. That document's final section deals with "Evaluation as a Tool for Achievement Growth" and emphasizes that

> it will be important for the Office of Research and Evaluation to conduct follow-up studies which examine the effectiveness of various changes made to improve school achievement. These studies should look at specific recommendations and compare various overall strategies implemented in schools. This suggests that proposed changes should be implemented in a systematic way so that the effectiveness of different strategies can be measured and compared.

In the final analysis, however, institutional acceptance is not entirely sufficient. It is institutional demand for decision information that is perhaps the single most vital factor in the translation of research and evaluation into educational policy. ☐

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