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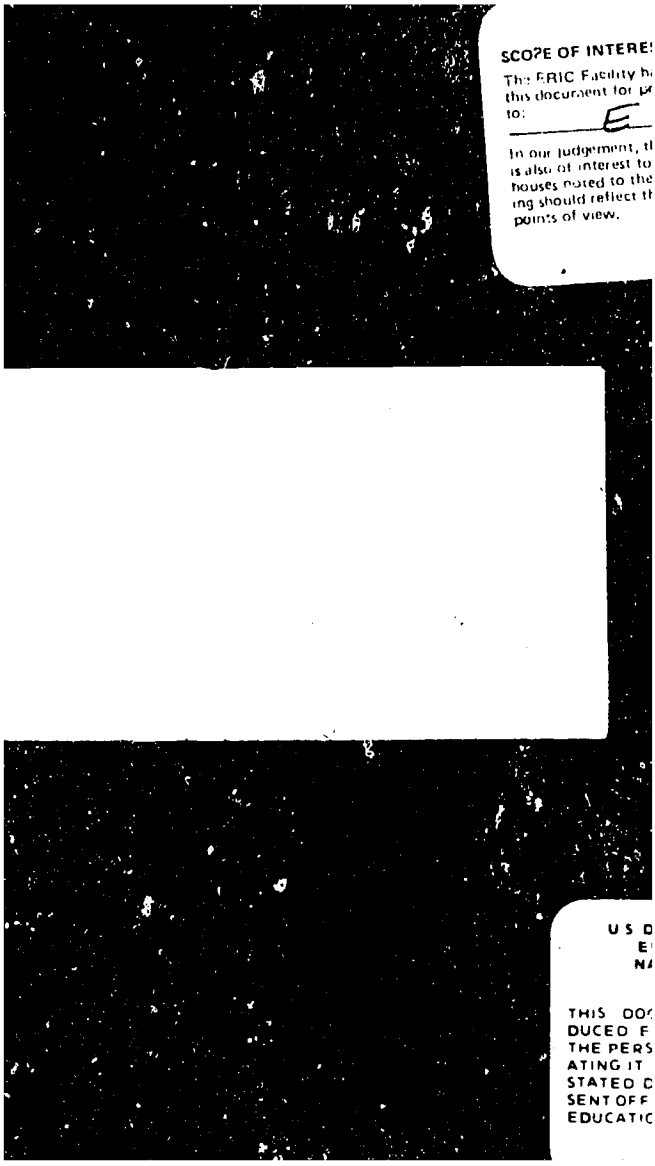
ABSTRACT

The thesis of this paper is that by recognizing the separate abilities and insights of educational administrators and researchers, cooperative research can be conducted that benefits both parties, yet requires neither a new research methodology nor increased research sophistication of administrators. The authors address this thesis from the perspective of a research effort initiated by an administrator as an aid to the operation of an educational institution. After discussing possible approaches to successfully conducting such a cooperative research effort, the authors present a brief case study involving a county detention center and two school districts in order to illustrate some of the ways educational researchers and administrators may work together productively. (JG)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Stephen L. Murray
Nick L. Smith
Northwest Regional Educational Laboratory

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THE ADMINISTRATOR-RESEARCHER INTERACTION:

THE CONDUCT OF COOPERATIVE RESEARCH

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Administrators of elementary and secondary school systems and other social service institutions dealing with children have relatively few examples available which illustrate how the techniques of research can be used as a valuable means of managing and providing data for assisting in decision making. Some writers have argued that, in fact, current research methodology focuses too much on the discovery of broad generalizable truths and that most practitioners desiring to conduct research studies are really not interested in the generalizibility of the results. These individuals frequently call for a new expanded definition of research, perhaps even new methodology, which more adequately meets the needs of practitioners (cf. Zaret, 1972). A counterproposal is sometimes offered by those who appear to accept the relevance of current research methodology, but call for increased research expertise on the part of the administrator - even to the point of suggesting that all school principals should become adequately trained to conduct their own local research (Turner, 1969). This paper is based on a third alternative, namely that through the recognition that both administrators and researchers bring separate and distinct abilities and insights to the research setting, cooperative research can be conducted which is beneficial to both parties and requires neither a new research methodology nor increased research sophistication on the part of administrators.

Actually, it appears from some empirical work by Clasen, Miller, and Conry (1969) that researchers and administrators have much more similar attitudes about access to and conduct of research in the schools than they frequently perceive.

> ...a concensus of favorable opinion (among administrators) about granting access to do research... However, these same administrators revealed some very strong concerns about: (1) being informed, personally, about all aspects of the research, (2) the value of the research for the school district, and (3) about implications of the research for the psychological health of the district pupils and staff. The key question appears to be under what conditions access will be granted, rather than whether or not it will be granted (Clasen, et al., 1969, p. 28).

In pointing out a misperception that researchers have about administrator's motives they note:

> One important finding...is that the personal involvement of the administrator in research and his willingness to consider research access on personal bases were not considered by researchers to be crucial in determining why access had been granted. Apparently the administrator is the key to access on personal as well as on professional grounds, and this phenomenon demands the attention of anyone requiring access to do research (p. 29).

Additionally, the argument is made below that research in applied settings must be a cooperative effort between administrator and researcher, not only because of problems of access, but to insure meaningful and useful research findings. Monahan (1969), in a survey and analysis of official policy statements regarding data access in large city school systems, found that most systems reviewed outside requests for research according to the following criteria:

> ...(a) its value to the school system; (b) the nature of its design (and therefore the extent that it may disrupt the normal work of the school); (c) approval of the unit or school to be concerned; (d) the purposes and reputation of the researcher (p. 206).

More importantly, however, he reported school district complaints that many researchers evidenced ignorance of data collection problems in city school systems, assumed school district obligations when there actually were none, had difficulty working with teachers, and failed to provide adequate follow-up information to the schools. Many of these problems could be obviated by cooperative work between researchers and administrators throughout the duration of the research activities.

A Basis for Cooperation

The need for cooperative work between researcher and administrator is equally strong regardless of which party initiates the research activity. The following discussion, however, is written from the perspective of the research being initiated by the administrator as an aid in the daily operation of the institution. For example, the research might be initiated to assist a school administrator assess the need for a remedial reading program or choose a dropout prevention program with the greatest promise. Included is a case-study example of how one might conduct research which would allow one to be problem-oriented rather than theory-oriented. Since, as mentioned above, administrators are likely to be concerned about the value of any study to the school district, it is more likely that they will be more interested in variables which have practical importance rather than strictly theoretical importance. In taking this orientation, however, the researcher is often asked to help the administrator make a decision based upon fallible data. Likewise, the administrator often needs to rely on the researcher to judge how much data collection and analysis is really necessary before a decision

should be made. While the difficulties in promoting effective researcher and administrator interaction may be, in part, due to different value perspectives, the position taken in this paper is that regardless of value differences or similarities of the researcher and the administrator, there is one shared task which forms a meaningful basis for interaction: both researchers and administrators are data collectors.

If the interaction forms around the data rather than theoretical positions, it is likely that fewer pseudo issues will end up blocking progress. If data focuses on indicies of actual behavior or other observable events rather than hypothetical constructs, it would seem to have the greater potential payoff in assisting administrators in decision making. With so many possible variables, factors, and behavior to consider, one could easily waste much time asking irrelevant questions or measuring meaningless variables. Thus, an efficient first step is to describe the variables which may indicate or contraindicate problems in terms of observable elements which we shall label criteria. The criteria should involve definite value implications resulting from a focus on events, behaviors, or conditions which vary in desirability. The administrator and the researcher should define the criteria through a collaborative effort, since the administrator must set priorities and make decisions, and the researcher must implement the study and communicate the results to the administrator. The administrator may have a better sense of priorities for global problems; the researcher may be more adept at explicating the variables in a problem situation. Particular attention should be given to the existing archival data base in defining the

problem situation. While knowing that it exists, the administrator may not be aware of the variety of ways in which it may be used. It is up to the researcher to make sure that such sources of data are not overlooked.

As a second step it is necessary to determine the range of possible hypotheses which account for the problem situation, or to establish information needs to be met in order to accept or reject possible decision options. This often involves attempts to determine the relationship between the criterion variable and other variables. The potential correlates with the criterion variable may best be generated by a comprehensive delineation of hypothesized relationships. Posing a comprehensive set of multiple hypotheses may be logically the most efficient way to proceed, but there can be many possible explanations to a given problem. Not all of them are equally researchable, nor do they generate equal resource demands for data collection.

Because of limited resources, it is desirable to maximize the benefit from archival data and additional data collection and analysis approaches used to investigate the problem under study. This can probably best be accomplished by a comprehensive review of the archival data base to determine the coverage it affords. Then one should consider procedures to assess the apparent strength and patterns of relationships to criteria and evaluate the various implications for intervention. As a simple example, suppose an administrator is interested in finding out why there were so many fights after school last year, so that the same thing can be prevented from happening again this year. Further assume that the researcher can document

from archival data that there was, in fact, an increase in the incidence of fighting, and therefore, that fighting is the problem which needs to be addressed and not the increased parental complaints about it, or the increased news coverage of the fighting, or a general phenomenon of increased aggressiveness among the youth.

After considering multiple alternatives, it may be decided that the following three hypotheses are the likely explanations:

1. Students who ride buses are the ones most often engaged in fighting - perhaps they get bored waiting for their buses.

2. Most fighting occurs near examination time - it may be that fights are a result of student examination tension.

3. Mostly the "noninvolved" students fight - fighting is an indication of their social frustration and lack of involvement in after school activities.

From student records and other data which may need to be collected the researcher can estimate the strength of the relationships suggested in the three hypotheses. Suppose, for example, that he finds a:

.20 correlation between bus riding and being a fighter.

.30 correlation between the incidence of fighting and the proximity of the date to examination time.

.40 correlation between being a fighter and belonging to few social-athletic school activities.

With some explanation of the possible implications of such relationships being provided by the researcher to the administrator there can be some convergence on which hypothesis refers to the apparent strongest relationship (hypothesis 3 in this instance). Subsequently, the administrator might attempt to develop special activities for the "noninvolved" students and continue to

monitor the incidence of fighting. The researcher should provide the rationale for establishing controls in applying the treatment. If the controls are adequate and the treatment leads to a decrease in the incidence of fighting, not only has a disciplinary problem been solved but a valuable socio-educational relationship has been illustrated at the same time. The researcher should point out that the incidence of fighting may, of course, not decrease for several reasons. It could be that there is simply no causal relationship between being "noninvolved" and being a fighter. Also, the administrator may have been unable to adequately involve the "noninvolved"; the intervention may not have been strong enough. The researcher is typically in the most advantageous position to enumerate the possible explanations. Qualifying the results is a very sensitive task. If the researcher has adequately explained the limitations of any design used, usually in terms of the legitimate inferences, the problems of interpretation will likely be minimized. However, the administrator who must be decision oriented has to make some kind of decision and may perceive the researcher as equivocating in his interpretations of the data. Whatever the reason, the administrator may now wish to test other intervention strategies most related to other hypotheses. Obviously failure to confirm hypotheses 3 does not necessarily imply that hypotheses 1 and 2 hold the key to solving the discipline problem - they are just the next "best" guesses.

In this example, only the indication of the strength of the hypothesized relationships was used to decide which hypothesis to investigate first. If the researcher had known from previous experience or other data, however,

that involving the "noninvolved" would probably be unsuccessful and if he had communicated this, then the administrator might have chosen to deal with hypothesis 2 first, even though the relationship indicated in hypotheses 3 was apparently stronger. One should, therefore, consider two items when deciding which alternative hypothesis to investigate next: the apparent strength of the hypothesized relationships and, secondly, the probability of establishing sufficiently strong treatment conditions, which is typically determined by the nature of treatment variables. The researcher can often supply information which speaks to these two points.

A Case Study of Interaction

Rather than prescribing a set of guidelines to follow, the following case-study involving a county detention center and two school districts in a metropolitan area is offered. The person initiating the research study was the administrator of the detention center. It was his perception of the problem which set the tone of the study. At the root of the detention center problem was a statewide concern over the appropriateness of detention as an intervention for all types of child offenders. Specifically, the appropriateness of detention was being questioned for a group of children designated as status offenders, or those who were held for offenses which would not have been considered offenses for nonminors. Examples of these offenses include runaway, illegal possession, incorrigible, and ungovernable. It was assumed by the administrator that these children were more likely to exhibit undesirable changes as a result of being held in detention. His rationale was that these

children were not "criminals" and that they likely differed from those committing nonstatus offenses (such as auto theft, burglary and forgery) on a number of variables including attitudes, interests, and background variables.

The detention center administrator was considering using this quasi-theoretical rationale to recommend that those children who had committed status offenses not be held in detention. This would have been an extremely attractive alternative, since nearly one-half of the children in detention at any one time were being held for status offenses. The administrator was urged to empirically investigate his assumption that there were a number of attitudinal, interest, and background differences between the two major classes of offenders.

The variable of practical significance was, therefore, type of offense, and the practical problem was to evaluate a specific proposal for decreasing the number of children held in detention. The researchers assisted the administrators in formulating the hypothesis that the two classes of offenders differed in terms of their attitudes, interests, and backgrounds.

While data on the type of offense was collected as standard procedure at the detention center, they had never before been used for research purposes. These data were invaluable in designing the research study, as they made it possible to estimate the proportion of children who would be classified in each offense category. These estimates were then used to determine the likelihood of discovering any relationships of practical significance. It is a well know statistical truism that when one wishes to differentiate between two groups, the chances of finding meaningful relationship are

increased as the two groups approach equal numbers (Meehl and Rosen, 1955). The administrator was pleased that his information could be used to help provide a research solution to a problem which he needed to address.

Data on background, attitudes, and interests were, however, not collected and instrumentation tapping these domains had to be selected especially for the study. The ALPHA Biographical Inventory (ALPHA BI, Institute for Behavioral Research in Creativity, 1968) a 300-item multiple choice life history inventory which includes a heterogeneous set of items tapping interests and attitudes as well as objective background data was chosen. Four previously generated empirical biographical key scores were included in the analysis. These key scores were to measure Academic Performance, Creativity, Family Income, and Dropout Potential. A second instrument chosen was the Student Questionnaire Level II (Utah State Board of Education, 1970). The Student Questionnaire Level II includes ten scales which have been developed through factor analytic techniques and empirical item analysis. These instruments were chosen after the researcher had provided the administrator with some minimal information on selecting an instrument. The actual selection was based on the researcher's review of potential instruments for technical considerations of validity and reliability and the administrator's review for face validity of the items.

Two groups made up the sample for the study. One group consisted of 401 children who were admitted to the detention center during the period from April 1972 through October 1972. Children were included in this group only if they had spent at least one consecutive twenty-four hour period

in detention, were between the ages of thirteen and seventeen, and were residents of the county in which the detention center was located. All of these criteria were established by the administrator. A second group consisted of 267 children from randomly selected classrooms in two districts in the county. These children were between the ages of thirteen and seventeen, were residents of the county and had never been held in detention for a period greater than twenty-four hours. The public school group was used in order to provide an extreme comparison group to determine if it was possible to differentiate between them and the detention sample.

The major analysis procedure was to create dummy variables to contrast status offenders and non-status offenders and to contrast the public school sample and the detention sample, and then to determine the correlates of those variables. Because of the records maintained by the detention center, it was an easy matter to transfer the data to a standard form for each child. The data analysis, which was chosen by the researcher, consisted of correlating the scores of the two instruments with the two criteria relating to delinquent behavior. In addition to the use of the scales which existed before the study was undertaken, new scales were generated through empirical item analysis procedures. The purpose of generating the new scales was to determine if it was possible to use the item pool of over 400 items to build a key which would discriminate between the status offenders and the nonstatus offenders. The item analysis procedure followed a double cross validation design in which the total sample of detention subjects and nondetention subjects was randomly split into two samples and each

sample was then scored with the key generated on the other sample. The two samples were combined and a total sample cross-validity matrix was generated. This procedure eliminates spurious fold back validity and used the total sample of subjects to obtain a single estimate of validity.

The ALPHA BI and the Student Questionnaire Level II were carefully administered to the detention sample by the detention staff under the supervision of the administrator. The staff screened completed instruments using a checklist to determine if any of the questionnaires had been falsified. Because of reading deficiencies it was necessary to read the questions to a small proportion of the detention sample. Criterion data on the nature of the most recent offense were obtained from the official records maintained at the detention center.

The data were collected from the nondetention sample by the central office research staff of the two school districts. Since the detention sample data were collected prior to the public school data, it was possible to match the public school sample in terms of the percentage of males and females and the number of children in the various age categories ranging from thirteen to seventeen.

None of the existing keys from either the Student Questionnaire or the ALPHA BI had any practical utility as correlates of the status versus non-status offense criterion. The highest validity was a -.25 for one of the Student Questionnaire scales labeled Reality. On the other hand, validities of these same scores against the criterion in which the detention center sample was contrasted with the public school sample were as high as .66, which was

obtained for the ALPHA BI Dropout key. Thus, the instruments differentiated between those in the detention group and those in the public school group at a reasonably high level, but could not differentiate in a useful way between status and nonstatus offenders.

The empirically generated and cross validated keys presented a similar picture. The key which was generated against the status versus nonstatus criterion from the ALPHA BI was a .34, while the key generated from the Student Questionnaire items had a validity of .13. These are hardly large enough to warrant any practically useful or generalizable relationships which may form the basis for making individual decisions, as even with a validity of .34 the percentage of variance in the criterion accounted for by the ALPHA BI key was 12 percent. In differentiating the detention sample from the nondetention sample the ALPHA BI key and the Student Questionnaire key attained validities of .69 and .68 respectively.

Since the results of the study did not offer much support for the notion that there were meaningful differences between status and nonstatus offenders, the administrator decided to drop the supporting rationale for his recommendation to decrease the number of children processed through the detention center. This decision was made on the basis of the administrator's judgment of what constituted a practically meaningful difference and not upon statistical significance.

Conclusion

This detention center example has been used to highlight some of the ways in which researchers and administrators may work together. In this

case the existing data base became the vehicle for the administrator to explain his problem to the researcher, and the means by which the researcher could demonstrate what he had to offer in the form of data analysis skills. The key point of the argument is not that one ought to be making administrators out of researchers or researchers out of administrators, but that a collaborative relationship in which each shares some of his particular professional expertise as required. If there is any special personality characteristic needed to function through this approach it is probably simply patience.

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