

Occasional Paper No. 2

TEACHERS AND RESEARCHERS:  
TOWARD A PROPER DIVISION OF LABOR

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Published by

The Institute for Research on Teaching  
College of Education  
252 Erickson Hall  
Michigan State University  
East Lansing, Michigan 48824

September, 1977

The Institute for Research on Teaching is funded primarily by the National Institute of Education, United States Department of Health, Education, and Welfare. The opinions expressed in this publication do not necessarily reflect the position, policy, or endorsement of the National Institute of Education. (Contract No. 400-76-0073)

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## Abstract

Collaboration between researchers and teachers is an effective way to bridge the communication/dissemination/utilization gap between them. More importantly, it would add a much needed perspective for systematic empirical inquiry at three levels of educational research: (1) conceptual, (2) procedural, and (3) inferential. The value of collaboration is discussed at each of these levels.

# TEACHERS AND RESEARCHERS: TOWARD A PROPER DIVISION OF LABOR

by Charlette Kennedy\*

## Introduction

Educational researchers and practitioners pursue different occupational specialities, yet these specialties converge in many areas. Instruction, learning, interaction between teachers and learners, subject matter, instructional material, and the environment of instruction are among the broad areas of mutual interest to both teachers and researchers. Despite these shared interests, however, the relationship between researchers and teachers most often resembles a marketing paradigm, with teachers operating as "consumers" and researchers cast in the role of "producers" and "suppliers" of educational knowledge.

The ethos in which this relationship was spawned has fostered the development of divergent role expectations and functions for both teachers and researchers. The pervasive ethos is characterized by isolation and insulation of the practicing community of educators from research-oriented scholars. A skewed imbalance of research-related activity being undertaken by practitioners has contributed to disparity between research findings and classroom practices and lack of an integrative theory of teaching.

At a minimum, what is needed is collaboration between researchers and practitioners, the creation of new methods for categorizing, describing and analyzing classroom phenomena, and the employment of alternative ways for generating new hypotheses and testing old ones. In a practical sense, collaboration between researchers and teachers is an effective way to bridge the communication/dissemination/utilization gap that characterizes the current state of affairs between research and practicing members of the educa-

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tional community. More importantly, however, is the potential for collaboration in research on teaching to add a much-needed perspective for systematic empirical inquiry at three levels of educational research. These levels are:

1. Conceptual Level (problem identification and hypothesis generation)
2. Procedural Level (matching inquiry modes to classroom variables and their dimensions; validating and replicating studies of classroom processes)
3. Inferential Level (formulating, clarifying and illuminating inferences which lead to the development of a systematic theory of teaching)

If teaching practices are to reflect educational research the efforts of researchers and practitioners must be synchronized. Likewise, if research is to have any practical application for teachers it must reflect the reality of the teacher's daily environment - the classroom. The classroom is the laboratory of research on teaching. Here, too, is the source of researchable questions regarding the complex human activity called teaching.

#### Teacher-Researcher Collaboration at the Conceptual Level

Educational researchers in general have investigated isolated bits of a larger educational context in an effort to generate hypotheses which will, in turn, guide future investigations. In spite of the increasing sophistication of research design and statistical paradigms which characterize skillfully executed inquiry, educational researchers have met with limited success in dealing with the complex array of human/environmental behaviors and variables which influence classroom events, phenomena, and processes. For example, student improvement (learning) in basic skills is the criterion frequently used to measure teacher effectiveness (McDonald, 1975; Stallings, 1976). Student improvement, from my perspective as a practicing classroom teacher, involves such skills as synthesizing, interrelating, integrating, and evaluating. In my opinion, these are adaptive behaviors which function as the cornerstones of learning across all subject matter disciplines. Typically, however, measures of student improvement which researchers use to

describe teaching effectiveness merely evaluate the learner's ability to perceive, relate and/or recall information. This difference in perspective between the researcher and practitioner clearly indicates the need to engage teachers in the conceptualization (hypothesis generation) level of research.

Teachers working collaboratively with researchers can provide valuable insights with respect to dimensions of teachers' functioning and the array of variables influencing their responses to the classroom environment and the school milieu. Together, teachers and researchers can agree upon problems and generate hypotheses which will eventuate in increased substantive knowledge about the practice and theory of teaching. Teachers can broaden the problem space in which research on teaching is conceptualized by

- describing (either systematically or in an anecdotal way) and evaluating pupils' responses to selected instructional material, procedures and programs
- articulating the variables which influence choices about the organization, sequencing and pacing of instructional content
- discussing the effects of their attention to multiple cues over sustained periods of time and implications these effects have for classroom interactive processes

Collaboration at the conceptual level encourages teachers' continued interest in and subsequent use of research findings since the involvement of teachers at the problem identification and hypothesis generation levels of research addresses their desire to feel some ownership in the research enterprise.

#### Teacher-Researcher Collaboration at the Procedural Level

In addition to broadening the problem space in which research is conceptualized, teacher-researcher collaboration can foster the creation and development of instruments which take into account the complexity of human behaviors comprising the act of teaching (e.g., planning, instructing, managing, judging). Implicit here is the need to facilitate preservice and in-service educators' acquisition of minimal research competencies.

Presently, the research process with its associated procedures and techniques is unfamiliar to the average classroom teacher. Although some competencies can be acquired through participatory research experiences, practitioners' value in a collaborative relationship will be proportional to the skills they develop in critiquing and assessing the potential use and application of methodological procedures to specific classroom processes.

In another sense, however, practitioners have a unique contribution to make as collaborators at the procedural level of research activity. Teachers, especially experienced ones, are a repository of information regarding past practices. Their retrospections with respect to the ways in which demands of their task environments have been modified or stabilized could provide insights into critical features of their teaching behavior (instructional sequencing, planning and allocation of temporal and material resources, for example). In turn, their perceptions can facilitate the ability of the principal investigator to appraise the gains anticipated from research and benefits for research participants from the practitioner's point of view. Hence, teachers collaborating with researchers at the procedural level would

- jointly explore appropriate research procedures which maintain the integrity of the principal investigator without compromising the dignity and welfare of project participants.
- assist in informing individuals about the conditions of research participation and obtain their informed and non-coerced consent to participate.
- review project progress with respect to fair and respectful treatment of research participants.
- provide cumulative data on consequences of research experience for participants.

#### Teacher-Researcher Collaboration at the Inferential Level

The goal of research is to advance knowledge. Research is valuable to the extent that it can describe cause-effect relationships. In research on teaching, care must be taken to avoid the premature drawing of inferences. Critical, i.e. cause-effect, variables in the educational setting are often

inconspicuous. They are idiosyncratic to the setting, occur infrequently, cannot be readily observed or measured with existing tools, only occur under certain antecedent conditions, and serve as frame factors for interpreting phenomena and classes of phenomena. One way of controlling and accounting for critical variables is to involve teachers significantly (as co-investigators, for example) in the replication of studies.

. . . The testing phase of research is of critical importance because very few studies . . . have been replicated and replications are vitally needed. Testing research findings under many varied circumstances is essential if a valid base of classroom practice is to be obtained by research. (Riedesel, 1968, p. 355-56)

In view of the critical need for empirical investigation (replication and cross-validation of research findings) and the inherent power replication and cross-validation have for theory development, it is useful to begin to explore ways in which teachers' observations, perceptions, and insights can be employed in the construction and development of protocols, the recording of classroom interactions, implementation of experimental treatments, and interpretation of findings.

Barber (1973) has articulated a set of recommendations which underscore the need for collaboration in experimental studies. Two of these are pertinent in the present context.

At times the same person plans the study (serves as investigator) and also collects the data (serves as experimenter). The investigator who plans the study and who has a strong commitment to the outcome should not be the same person who serves as experimenter who collects the data.

There are so many pitfalls in any one experimental study that we should not take any one study too seriously. Before they are accepted as an integral part of the area of inquiry, the results should be replicated by a variety of investigators who hold different paradigms of theories.

Given the special significance of educational findings for policy decision makers, research on teaching and all educational research must clearly and unequivocally point out assumptions made, circumstances under which the data were obtained, and unknowns about the applicability of findings.



Moreover, teacher input should be used to clarify findings whether a study is experimental or descriptive in nature. Theory and practice will benefit to the extent that teachers, in collaboration with researchers, can add to, clarify, or negate interpretations of findings as a result of their replications and test of variables believed to be causal in a variety of settings. Through this process a hierarchy of statements leading to a coherent theory of teaching could be formulated.

### Conclusion

Collaborative activity between researchers and teachers is a viable process for effectuating movement toward an interface between educational research and practice. Ideally, collaborating practitioners and educational researchers should be engaged in all phases of research activity from the initial design and planning to subsequent implementation and final interpretational, i.e. inferential, phase as well. Implicit in the present discussion is the notion that collaboration is multidimensional and multifaceted. Thus, collaborative roles include a range of alternatives from model/participant to co-investigator.

As model/participants, practicing teachers could provide researchers with insights regarding the critical variables influencing their methods of instructional organization. The researcher, using various observational strategies, would be able to generate hypotheses about many features of the classroom environment which produce differential effects upon teaching activity as well as pupil performance.

As experimenters, some practicing teachers would be able to carry out prescribed experimental treatments in a variety of different settings. The collected data should yield some valuable findings with respect to the antecedents and consequences of specific kinds of instruction.

Another possible role for the teacher collaborator is that of co-inves-

tigator. Such persons would possess some formal knowledge of research processes and procedures in addition to being skilled practitioners. In the role of co-investigator teachers would be engaged in the design and implementation of a study and the subsequent interpretation of findings. This kind of collaboration envisions a synthesis between the teacher's practical wisdom and the researcher's scientific knowledge.

Collaboration is a challenge that researchers and teachers must meet if they are to increase the dissemination and utilization of research findings, increase the validity and power of descriptions and analyses of classroom processes and events, and provide a response to the growing number of skeptics who question the relative contributions of schools, teachers, and researchers.

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