Teacher as Researcher: The Problem Reconsidered

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Les auteurs se demandent si la divergence entre les rôles de chercheur et d'enseignant et la méfiance qui en résulte est irrévocable. En s'attaquant à cette question ils proposent de redéfinir les termes d' "enseignement" et de "recherches". Une approche éclectique faisant valoir l'optique de l'observateur averti et la perspective de la sociologie des connaissances permet de redéfinir ces termes de manière plus compréhensive.

Grâce à une définition ainsi précisée les auteurs démontrent aux enseignants qu'il existe un mouvement de dialectique entre les chercheurs enfermés dans leur tour d'ivoire et les éducateurs qui sont engagés dans la réalité concrète de l'école.

L'article se termine par la discussion des conséquences de ces nouvelles définitions pour (1) la formation des enseignants et (2) pour les formes de recherches particulièrement adaptées aux éducateurs.

The opinion expressed by Cane and Shroeder (1970) that "educational research is now accepted as a necessary element in the multifarious educational activities of any sophisticated society" (p. vii) may have been true in 1970 but in 1977 the same statement requires careful qualification. No issue is taken with the proposition that it is considered "necessary" by educational researchers but whether it is "accepted as a necessary element" by practitioners (i.e. those who consider themselves "teachers" whether at the kindergarten or post-secondary level) is another matter. Both at the school and the system level, practitioners are less sure than they have ever been of the benefits that are supposed to accrue to them from educational research. In the past, however impatient the teacher might have felt with the theoretical concerns of the researcher, in general the teacher's attitude was one of hopeful expectancy that one day the researcher would "find something useful" that would assist the practitioner. The change in attitude toward the researcher has been well summarized by Gephart (1976):

> In 1965–66, if you said you were about to conduct some educational research, your colleagues would pat you on the back, people would look at you with respect and you would probably get a raise in pay. In 1975–6, the situation has changed

markedly. Disdain for research is now common. Many educators believe and openly state that research is of no help to the teacher or administrator, that it is a waste of money, time and energy that could be better spent on practical items. Politicians agreeing with the no-help thesis have called for a moratorium on research suggesting that we already have more knowledge about education than we are using. (p. 1)

In Canada as in the United States, disillusionment with education has resulted in austerity budgets (MacDonald, Note 1, p. 7); research projects that are not perceived as being of immediate relevancy are not likely to find funding. Since practitioners both at the school and the system level are less sure than they used to be of the supposed benefits that accrue to them from these projects, they are less tolerant of the "intruders" from the universities, departments of education, and other agencies who conduct research in their schools. In the past — but less surely in the present — the benefits of research have been seen as affecting the authorities who form policy, the administrators who implement it, and the teachers whose changing methods and curricula presumably refine and improve the educational process for children.

The long-standing attitudinal separation of research and teaching roles in the educational enterprise is epitomized by Edgar (1974) who stereotypes both teacher and researcher alike:

teachers cannot become researchers in other than a very limited sense . . . cumulative understanding rests upon carefully formulated theory, the clarification of assumptions and hypotheses and the testing of alternative models by competent researchers. The teacher's role in this is to suggest problems, provide research opportunities and evaluate results in the light of practice. (p. vii)

Implicit in this comment is the limited definition of the "teacher" who, incapable of understanding "carefully formulated theory," must passively provide problems and research opportunities for the researcher who, lacking in empathy for the ongoing process of education, is incapable of discovering any real problem without the assistance of the practitioner.

The concern of this paper is to argue that different or broader interpretations of these definitions based on a sociology of knowledge approach result in an alternative view that does not demand the strict separation of teaching and research roles. With this end in view, the arguments supporting a redefining of the concepts of teaching and research are presented within a sociology of knowledge framework. The second half of the paper focuses on the implications of these "new" definitions for teacher education and on the identification of the types of research relevant to teachers.

REDEFINING TEACHING AND RESEARCH

What Is Research?

An attempt is made to reconsider the definitions of teacher and researcher

roles from two perspectives: (1) that of educators involved in and concerned with the "multifarious educational activities" of their milieu, and (2) that of sociologists of education for whom teaching and research are not givens but are regarded as problematic.

Certain trends within the teaching profession in recent years – increased educational preparation and greater militancy among teachers for recognition of teaching as a profession (Fris, 1976), the proliferation of specialist roles within school systems, the increased percentage of high school students retained within schools until graduation, sophistication of educational technology – seem to indicate that now is an appropriate time to "take stock" and to make change where change is needed. The quality of instruction in our schools and the credibility of educational research depends on closure of the gap between researcher and teacher.

A diversity has developed in the three message systems by which formal educational knowledge is realized in schools, that is through curriculum, pedagogy, and evaluation. Teachers have become involved in devising and implementing a range of curricula including bilingual programs, programs for exceptional children and the culturally deprived, and ways to facilitate inquiry learning. They have had to develop skills that enable them to manage in open classrooms, small-group workshops, team teaching, and multimedia learning environments. The responsibility has increasingly been placed within schools for teachers to devise new ways of monitoring student progress, outside agencies such as departments of education having delegated much of the responsibility for curriculum and examination of students to the district and school level.

Significant changes in the teaching workforce and in the tasks of teaching have not been accompanied by any lessening of the high expectations our society holds for education. Education remains a dominant institution which is seen as the gateway to the future for young people. More recently, the push for upward mobility via education has been overlaid by a greater concern for the contribution education can make to the less advantaged groups in society. In essence this means that the label "teacher as professional" subsumes at least three aspects. (1) Teachers' knowledge encompasses traditional academic content and practical knowledge which can be drawn on to solve everyday problems as perceived by their students. (2) Teachers constantly examine the teaching–learning processes in which they are engaged and, where appropriate, modify the content and organization of their knowledge. (3) Teachers have an ethical commitment to use their knowledge in socially responsible ways. In the light of these considerations, it no longer seems reasonable to exclude the role of researcher from the teacher's role-set. The professional status of teaching requires its members to assume responsibility for serious reflection on the meaning and implementation of their task in education. For this, a research orientation appears to be mandatory.

The problems involved in developing research expertise in teachers at the preservice and inservice stages have been inadequately explored, in part because of the limited definitions of "educational researcher." A great deal of educational research conducted by sociologists and psychologists has been empirical, experimental, utilizing sophisticated research designs and statistical techniques. The majority of teachers are unfamiliar with advanced statistical tools and as a consequence the majority of researchers have remained aloof from teachers, "using" them only as part of the data or as unpaid labor in distributing and collecting questionnaires. The ability of teachers to identify major problem areas is too frequently overlooked.

The professional preparation period emphasizes academic development, expertise in the teaching process, and, perhaps, personal development. Courses may be given in measurement and elementary statistics, but it is less likely that research activity will be introduced and encouraged as a "normal" part of a teacher's role-set. Only a limited number of teachers who go on to post-graduate education return to classroom teaching and utilize research skills developed at that stage. The more usual trend is for individuals to gain additional qualifications and to move into administrative or other specialized positions which are one or more steps removed from the activities of the school classroom. In less formal professional inservice sessions, little encouragement is given to teachers to include the role of researcher in their role-set, and still less emphasis is placed on the acquisition of research skills.

Acknowledging the fact that attitudes are slow to change, two interrelated suggestions are tentatively proffered: (1) adoption of a more positive view of the contribution the teaching profession can make to research, and (2) de-mystification of the concept of research for teachers.

For effective research three sets of interrelated conditions must be met: adequate resources, appropriate structures, and a sympathetic political, social, and educational climate (Taylor, 1973, p. 3). It should be recognized that over the last couple of decades there have been some significant changes within the occupation of teaching which have resulted in the upgrading of teaching as an occupation. These include higher economic rewards, which are partly the result of requirements for longer (if not "better") professional preparation and the accompanying academic status which correlates with prolonged tertiary education. Teaching is now a relatively well-paid occupation, with secure professional associations. Both the tangible and intangible demands and benefits of education ensure its prominence in political and social terms. Research, however, is an expensive activity and the presence of a sympathetic climate in all the areas noted cannot be guaranteed. A redefinition of educational research as part of the teacher's role might be a way of helping to satisfy the three conditions cited above.

Consider the following.

1. The sheer numbers of teachers in the teaching service represent a valuable

untapped *resource*. By building-in research as a normal part of a teacher's activity, financial resources for some types of research need not be an inhibiting consideration. If outside researchers can enter into collegial relationships with teachers so that teachers perceive themselves as partners in some aspects of the decision-making process and product of the research, then teachers will constitute a significant resource.

2. Teacher training institutions, the regional offices, consultancies, and specialized services associated with departments of education, and research sections of teacher professional associations all provide supporting and facilitating *structures* for research activity. More specifically, they offer the expertise for pre- and inservice education. The importance of formal education has been emphasized in the past three decades. This background of raised consciousness gives some assurance of a general continued interest in educational research and development in the political, social, and educational spheres. Reducing the esoteric nature of some research, by situating it more firmly with the practitioners, should favor the development of a *climate* sympathetic to research.

Härngvist (1973, pp. 45-59) in his definition of educational research incorporates within his paradigm all approaches to educational matters which are based on disciplined inquiry. Such a research paradigm includes empirical inquiry with quantitative techniques and naturalistic observation, historical studies, and philosophical analyses. Not only is a range of types of research provided for but also a variety of aims, encompassing conclusion-oriented and decision-oriented research. Thus it can be demonstrated that diversity in research design calls for diversity in skills and, more importantly, in personnel.

If one accepts the premise that educational research is a multidisciplinary and multi-method enterprise, then classroom teachers must be encouraged to acquire appropriate research skills early in their careers. This is not to say that all teachers require the same research training. Many teachers may prefer to engage in naturalistic observations and decision-oriented research. A few may wish to become involved in rigorous quantitative and conclusion-oriented research. Still others will find satisfaction and excitement in pursuing inquiries using the tools of philosophy or history.

In this broad interpretation of educational research there are four major implications:

1. Emphasis is placed on the nature of the research act, that is, on disciplined inquiry, rather than on specialized research design and methodology.
2. The interrelationship between teaching and research is strengthened by enabling the teacher to see his or her normal teaching activity as one that includes research activity.
3. The disciplines which contribute to the study of education are seen to be working partners in this enterprise.
4. The teacher is offered alternatives in research inquiry and a measure of control over his or her participation.

A further elaboration of some of these points will be incorporated into the latter part of this paper.

Contribution of the Sociology of Knowledge

The observations of a sociologist of education are likely to be influenced by the approach known as the sociology of knowledge. This approach is central to interpretative sociology, which has offered a challenge to the assumptions and practices of mainstream sociology in contemporary sociology of education. Two major assertions of current sociology of knowledge are that all ideas have a social origin and that all knowledge is relative (Berger & Luckmann, 1967, p. 3). Such an orientation has a profound effect upon the traditional concepts of teaching and research. The sociology of knowledge approach, with its stress on intentionality and knowledge as a human production, highlights the view of research as one form of the social control of knowledge.

In the sociology of knowledge perspective, the manifest function of education is the management of knowledge. Teaching and learning are conceptualized as the intersubjective construction of reality (Esland, 1971, pp. 70–115). As a consequence of this conceptualization, three related areas of teaching assume particular importance: (1) the problematic aspects of educational knowledge, (2) the social nature of categories constructed and maintained by educators, and (3) definitions of the situation evolved in classroom interaction (Gorbutt, 1972, p. 7). When teachers have a priori recognition of the research act as a social act, they are less intimidated by the mystique of the researcher and more able to adopt a positive, critical stance toward research.

The "negotiated" idea of teaching and learning runs counter to the model of teaching and learning in which knowledge is transmitted from the teacher to the student and education is defined as acquisition of fundamental public modes of experience, understanding, and knowledge (Whitty, 1974, p. 120). Esland (1971, p. 76) has indicated that the relationships between the intentionalities and rationales of the participants in the classroom are crucial data for understanding the outcomes of teaching and learning. This in turn poses research questions for teachers reflecting on their own teaching and for outside researchers who must rely on teachers for access to these data.

Commonly used educational categories include "teacher and pupil," "remedial education," "academic and vocational subjects," "discipline," and "school." Raymond Williams (1974, pp. 86–111), whose argument has a Marxian framework, has suggested that categories like these result from the resolution of ideological debate. Because change occurs over time, it is difficult for those who accept what they see as shared meanings to understand that these categories are socially constructed. If teachers are sensitized to the latter view, they can inquire into alterations in categories and shifts in dominant ideologies. As a concrete example, the proposed introduction

of a new program may stimulate the teacher to inquire into its underlying assumptions, its sponsors, its implications for the reality already constructed with his or her students, rather than to passively accept it on the authority of some external agency. The teacher is clearly able to initiate his or her own research project in this case.

According to Williamson (1974, pp. 112–137), the school can be seen as a locus of cultural transmission and social control with the teacher as agent. In the classroom, conflict results from the construction of a variety of definitions of the situation. A workable solution is provided by the imposition of meaning, but this raises the whole question of power in the classroom, which involves further questions about the distribution of resources, both material and non-material. For example, the teacher may not have considered the political aspects of practices such as streaming in which there is differential distribution and stratification of knowledge. From a focus of power within the classroom, attempts can be made to trace the power structures which impinge on it from the rest of the school or from agents like school boards, departments of education, pressure groups, and curriculum committees outside the school. The asymmetrical power relationship between teacher and pupils may be parallelled by that between teacher and outside researcher. The researcher may minimize the research information he or she provides for the teacher and consequently the teacher has little control over what is done.

It is suggested that researchers and teachers have different and limited views of the research reality because they have been socialized into different occupations with different sets of skills and different kinds of knowledge.[1] This situation, with its elements of control over who possesses knowledge and what kind of knowledge is valued, is similar to that which pertains to teachers and their students. Thus, teachers may be brought to focus on the nature of the shifting equilibrium in the classroom and the possibilities for research as an aid to teaching.

The differential access to research knowledge between researcher and teacher corresponds to the differential access to "school" knowledge which exists between teacher and students and involves the concept of cognitive legitimacy (Bourdieu, 1971, p. 194). The level of abstraction of this idea demands a sophisticated understanding that is neither easily nor rapidly acquired. If meaningful involvement in research is to become an accepted component of the teacher's role, then this must be "taught" at the pre-service level and consciously reinforced at recurring points in the professional development of the practising teacher. Through such learning, for example, teachers will both comprehend for themselves the concept of "shifting equilibrium" in the classroom and have an awareness of its consequences for teaching activities. From such understanding may come plans to investigate a perceived "problem" and, finally, attempts to deal reflexively with the results of the "research." In the process which has been outlined, a professional researcher could initiate any of the stages

but a well-developed description and interpretation is more likely to occur when teacher and researcher form an equal partnership in the enterprise.

Eggleston (1974) comments that much of the mystique of sociological research has derived from its claim to adhere to the "pure science/psychological model with its reliable definitions, order and control of materials, detached and rational behavior of investigators . . ." (p. 2). Interpretative sociology challenges this model. Two of the arguments are advanced by Cicourel (1964, p. 2), who questions the influence of the researcher's presence and procedures on the data he selects and who seeks clarification of social events before imposing measurements with which the events may not be in correspondence. These arguments lead to support for types of research in which investigator variables are acknowledged and turned to some advantage, and in which participant observation plays a more prominent part in allowing subjects to "speak for themselves."

The ongoing debate in sociology between those who support a normative research paradigm and those who support the interpretative approach to research is placed in its educational context by Sharp and Green (1975) in the first chapter of their book. Taking classroom interaction as their example, they critically review relevant research which has utilized structural-functional and positivistic empirical approaches on the one hand and on the other, symbolic-interactionist and phenomenological approaches. The point being made here is that teacher trainees and teachers must be sensitized to the substantive concerns and methodological problems of a range of approaches – normative and interpretative. The activity of teaching constantly poses questions the answers to which involve "disciplined inquiry," largely on the part of the teacher. However, it is equally true that the complex nature of teaching and the problems resulting from teachers acting as "researchers" and "researched" raise issues which must remain the province of the academic researcher.

Such critiques of research seem to bear a similarity to a critique of teaching (Esland et al., 1972, pp. 34–41) in which psychometric and phenomenological models are posited to account for pedagogical behavior – further indication of the reciprocal relationship between teaching and research. Esland et al. suggest that pedagogical models refer to teaching styles, organization of curriculum content, and classroom control, and that a teacher's pedagogy consists of both visible and invisible components. The research of Cicourel and Kitsuse (1963) and of Keddie (1971) in exploring definitions of pupil identities illustrate ways of investigating the visible and invisible components of behavior in teachers and counsellors. An introduction to research of this type in teacher education programs could serve to encourage teachers to reflect on the often unexamined meanings, assumptions, and intentions which underlie their own actions and behaviors as teachers and to recognize the role that research can play in this process.

What, then, has the sociology of knowledge approach contributed to an understanding of the teaching/research relationship? The following points merit careful consideration (although space limitations of this paper preclude exploration of neo-Marxist orientations in contemporary sociology of knowledge and their implications for teacher education).

1. Focusing on the management of knowledge reveals a link between the activities of teaching and research and the control functions of teacher and researcher.
2. The conduct of teaching and research has been related to the imposition of meaning by the teacher or researcher in a context (sometimes the same context) in which a variety of constructions of reality are produced by the participants.
3. A critical stance is fostered toward the activities of "teachers" and "researchers" alike.
4. The relativised concept of knowledge underlines the need for teachers to submit their ideas to open criticism through their collegial networks, including teacher education institutions. One vehicle for this process is the presentation of research results.
5. Emphasis on the problematic aspects of teaching confronts the teacher with questions requiring investigation. Ipso facto, the teacher is also a researcher.

SOME IMPLICATIONS FOR TEACHER EDUCATION AND TEACHER-RELEVANT RESEARCH

Gorbutt (1972) offers a perspective on teacher education which seems particularly apt in the context of this paper:

> We need to generate a new model of teacher education and educational practice. The basic aim would be to produce the self-critical researching teacher who would constantly monitor the effectiveness of his own and colleagues' activities and modify his behaviour accordingly. Thus teaching itself would become a self-critical research act. Educational research far from being the remote preserve of the few would become part of the normal activity in schools and colleges. (p. 10)

Although it would be even more appropriate if the word "expanded" was substituted for "new" in the first sentence, this model is in keeping with the perspective presented earlier. It is not within the purpose or scope of this paper to explore the issue of a total teacher education program. The role of teacher as researcher is only one component of the teacher's role-set which should be the concern of pre-service and continuing teacher education. The problem remains, however, of translating this theoretical model so that it gains acceptance in teacher education institutions and at all levels of school systems. To claim to offer a complete response to the problem is not our intent but it is possible to present some general outlines for operationalizing the concept of the self-critical researching teacher.

Implications for Professional Preparation

Accepting a definition of research as "disciplined inquiry" places the onus on those responsible for the professional preparation of teachers to design courses which illustrate the appropriate research tools available in their disciplines. Such courses would enable students to experience for themselves how, for example, a sociologist might study an educational problem. The disciplines of philosophy, sociology, and psychology have much to contribute to the research consciousness of potential and actual teachers. Some practical implications follow.

1. The differentiation between research and development and their possibilities for all teachers must be stressed.
2. The modes of philosophical, sociological, and psychological research and their contribution to the study of education need to be outlined.
3. Students must be provided with opportunities to engage in a variety of research activities. Such activities might profitably include:

a. analyses of content and style of documents;
b. interviewing, participant and non-participant observation, and techniques for analysis of data obtained by these means;
c. quantitative ways of dealing with data;
d. methods of reflecting on their own teaching behavior; and
e. practice in the design of questions leading to inquiry in education.

Implications for Professional Development

1. University researchers must develop a consciousness of their role as consultants for teachers wishing to conduct their own research and of the necessity to involve teachers as research colleagues wherever possible in university research.
2. Teachers should be encouraged to continue their professional preparation beyond the minimal requirements.
3. Teachers' professional associations, school boards, and departments of education should increase the number of opportunities for teachers to share their research and development experience with colleagues and to enter into dialogue with established researchers.
4. Seminars and short courses (not necessarily credit-carrying) in more specialized research methods and techniques should be provided for teachers who are both competent and interested.

The Teacher as Researcher

Much educational research is of an empirical-behavioral character with an emphasis on gaining new information which, being context free, has universal validity (Daine, Note 2, p. 9). When research is of this type, the generalization that the contribution of the classroom teacher is restricted (Edgar, 1974) is probably correct. It therefore seems more profitable to concentrate on those aspects of the educational enterprise which are an

essential part of a teacher's everyday life. Teachers are concerned with the teaching process, with curricula, materials, and techniques; they are concerned that their professional decisions made in the context of the classroom can be justified, if necessary, either at the school or system level. The gathering of information so that decisions can be made from the known alternatives provides the impetus and the justification of teacher research.

An example of a type of research relevant to teacher concerns is given by way of illustration. It is considered at three levels: the general orientation (*action research*); the second level, where objectives are more clearly specified (*illuminate evaluation*); and the third level, the particular technique for achieving the objectives (*triangulation*). These three elements are not interdependent; they can stand alone or can be used in combination with other methods and for other purposes.

The intent of *action research* is to move towards the achievement of a unity of theory in practice. According to Claydon (1975): "By 'theory in practice', I wish to indicate the creation within a particular school . . . of an intent to work from an informed theoretical understanding to originate ways of working tailored to the circumstances, the people and the special needs of that school" (p. ix). The research team and the teachers in the selected school work together to transform theoretical principles into strategies of change within the school while at the same time modifying principles in the light of rigorous "reality" testing. This type of approach stimulates the concept of the teacher as self-conscious researcher and as agent of educational reform.

Action research seems to offer a useful approach in situations where schools serve less privileged clients. Resulting from research done in the fields of psychology and sociology, there is a considerable body of literature on the relationship between deprivation and school achievement. Teachers may perceive such research as irrelevant to the complexities of their own school environment, but at the same time teachers in such schools may be predisposed to try any innovation which promises improvement and may be willing to join an action-research team. One outcome of involvement is that teachers may be brought to a clearer understanding of the differences between formative and summative evaluation (Weiss, 1972, p. 17) and of the multiple roles that they as practising teachers can play.

As teachers are in the "front line" in the implementation of new curricula or programs in action research, it seems appropriate that they should have an understanding of, and a part to play in, evaluation of such programs. For this reason, *illuminate evaluation* (Partlett & Hamilton, 1972) as a means of studying the effects of innovatory programs should be introduced. This method differs from the more usual method of evaluation which attempts to measure educational products. It entails an intensive study of the program, its rationale and evolution, its operations, achievements,

and difficulties. Innovation is not examined *in vacuo* but in the particular school context or learning milieu.

This type of research requires a multi-stranded methodology (and may involve the triangulation approach). Teachers gain an understanding and critical awareness of the uses and shortcomings of such data-gathering devices as the questionnaire, through the provision of diverse research experiences in the techniques and skills of observation, interviewing, decoding of documents and background information, and design-administration-analysis questionnaires.

The wider context in which educational programs function includes the instructional system and the learning milieu. The instructional system includes the pedagogic assumptions, syllabi, and details of techniques and equipment which vary according to the program to be initiated, for example team teaching or the integrated day. The learning milieu constitutes the social-psychological and material environment in which students and teachers work. All the system and milieu factors interact to produce a unique pattern of circumstances which interpenetrate the teaching and learning occurring in a particular educational context.

The teacher is a crucial component of and "observer" within any learning milieu and instructional system. The teacher can function also as a part of the action-research team with its external researchers. The intellectual experiences of students mediated by the instructional system in the learning milieu is a vital focus in *illuminate evaluation*. The teacher's assumptions about how knowledge and pedagogy should be organized have a direct influence on the instructional system, a further reason why the teacher has a place in *illuminate evaluation*.

Research in classroom interaction and its outcomes has tended to fall within the psychometric paradigm (Eggleston, 1974, p. 10) and the technique of "objective" observers employing observation schedules of varying degrees of sophistication has been greatly utilized. The underlying rationale is that such procedures overcome the problems of overly subjective impressions of teachers and the difficulties attendant on verification of teachers' accounts of their states of mind during the teaching/learning activity. However, this research paradigm has effectively excluded teachers from contributing to research and has reinforced the hiatus between teachers and professional researchers.

Efforts have been made to overcome the sorts of problems mentioned above. There have been a number of studies which present accounts of school life and fall loosely within the ethnographic tradition (cf. Martin, 1975; Stebbins, 1971). Even here, however, teachers are among the researched. The researcher's problems are those being pursued. By drawing teachers into a research partnership, the research becomes more relevant to teachers' concerns. Of methodological significance is a second consequence of this partnership; the outside researcher may counteract a possible dis-

torted reinterpretation of an event because he or she is able to check his or her account with that of the teacher/actor involved.

Elliott and Adelman (1975) have suggested the introduction of the method of *triangulation* in research on classroom interaction (which may fall in the ambit of *illuminate evaluation* as part of an *action research* project). The meaning they attach to this term is one of multiple interviews in which accounts of a teacher's conduct are elicited from him or herself, his or her students, and an independent observer. The three sets of accounts are made available to all parties concerned for discussion and reinterpretation, if necessary. Both the outside researcher and the teacher have access to all the materials — accounts, tapes, videotapes, observer notes — to be used for their particular purposes. For example, the teacher may use the data to aid his or her conscious self-monitoring with the aim of improving his or her own teaching performance, while the outside researcher working within a particular theoretical framework may be able to contribute to generalizations supporting the theory.

CONCLUDING STATEMENT

In conclusion, it should be clearly stated that in this paper there has been no claim to having provided a complete or adequate alternative to the current paradigms in either teacher education or the sociology of education. Instead we have sought to stress the need to reassess the way in which problems have been generated and solutions proposed within education and within the sociology of education.

The critical nature of the research act leads the individual to redefine the situation, to develop and adjust his or her construction of social reality. This development of awareness and sensitivity seems to be congruent with the notion of teaching as a career in which the participants have an inherent interest in the advancement of the life-long education concept and of practising it themselves. It is our contention that this condition is exemplified where there is a well-developed understanding and acceptance of the role: teacher as researcher.

NOTE

1. We are following a Mannheimian interpretation of knowledge here by stressing that the knowledge is "different" rather than making a judgment on its superior/inferior quality.

REFERENCE NOTES

1. MacDonald, I. H. *Financing education in the future.* Ontario Council for Leadership in Educational Administration. Sept. 8, 1976, pp. 3–8.

2. Daine, P. J. W. *Evaluation of the HOPEG innovations project.* (Mimeo.) La Trobe University, 1976.

REFERENCES

Berger, P., & Luckmann, T. *The social construction of reality*. London: The Penguin Press, 1967.

Bourdieu, P. Systems of education and systems of thought. In M. Young (Ed.). *Knowledge and control*. London: Collier-Macmillan, 1971.

Cane, B., & Schroeder, C. *The teacher and research*. London: National Foundation for Educational Research, 1970.

Cicourel, A. *Method and measurement in sociology*. New York: The Free Press, 1964.

Cicourel, A., & Kitsuse, J. *The educational decision-makers*. Indianapolis and New York: Bobbs-Merrill, 1963.

Claydon, L. (Ed.). *The urban school*. Carlton, Vic.: Pitman, 1975.

Edgar, D. (Ed.). *The competent teacher*. Sydney: Angus and Robertson, 1974.

Eggleston, J. *Contemporary research in the sociology of education*. London: Methuen, 1974.

Elliott, J., & Adelman, C. Teachers' accounts and the objectivity of classroom research. *London Educational Review*, 1975, *2*(2/3), 29–37.

Esland, G. Teaching and learning as the organization of knowledge. In M. Young (Ed.), *Knowledge and control*. London: Collier-Macmillan, 1971.

Esland, G.; Dale, R.; & Sadler, J. *The social organization of teaching and learning*. Bletchley, Bucks.: The Open University Press, 1972.

Flude, M., & Ahier, J. (Eds.). *Educability, schools and ideology*. London: Croom Helm, 1974.

Fris, J. Militancy and accommodativeness in teachers' negotiations: Two Ontario surveys. *The Canadian Administrator*. 1976, *16*(1), 1–6.

Gephart, W. Does research provide help for the educator? *News, Notes and Quotes* (Newsletter of Phi Delta Kappa, the professional education fraternity), 1976, *20*(6), 2.

Gorbutt, D. The new sociology of education. *Education for Teaching*, 1972, *89*, 3–11.

Härnquist, K. The training and career structures of educational researchers. In W. Taylor (Ed.), *Research perspective in education*. London: Routledge and Kegan Paul, 1973.

Keddie, N. Classroom knowledge. In M. Young (Ed.), *Knowledge and control*. London: Collier-Macmillan, 1971.

Martin, W. Teacher-pupil interactions. *The Canadian Review of Sociology and Anthropology*, 1975, *12*(4), 529–540.

Partlett, M., & Hamilton, D. *Evaluation as illumination: A new approach to the study of innovatory programs*. Occasional Paper, no. 9. Edinburgh: University of Edinburgh, Centre for Research in the Educational Sciences, 1972.

Sharp, R., & Green, A. *Education and social control: A study in progressive primary education*. London: Routledge and Kegan Paul, 1975.

Stebbins, R. The meaning of disorderly behaviour: teacher definitions of a classroom situation. *Sociology of Education*, 1971, *44*(2), 217–236.

Taylor, W. (Ed.). *Research perspectives in education*. London: Routledge and Kegan Paul, 1973.

Weiss, C. *Evaluation research*. Englewood Cliffs, N.J.: Prentice-Hall, 1972.

Whitty, G. Sociology and the problem of radical educational change. In M. Flude and J. Ahier (Eds.), *Educability, schools and ideology*. London: Croom Helm, 1974.

Williamson, W. Continuities and discontinuities in the sociology of education. In M. Flude and J. Ahier (Eds.), *Educability, schools and ideology*. London: Croom Helm, 1974.

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