This paper argues that during the past two decades, research on teaching effectiveness can be identified with three differing paradigms: (1) the technical/"scientific"; (2) the humanistic; and (3) the person-centered paradigms. It is further proposed that if teaching is viewed as an art or craft and learning as an ever present process, rather than an "event," the real complexity of the teaching/learning experience can be clarified, and that to accomplish this in a way different than the identification of discrete behaviors/outcomes, it is necessary to redefine the problems for analysis. A theory base or rationale is provided for the extensive use of video in the analysis of teaching, in order to clarify the theory-practice dilemma. A model is proposed for the analysis of teaching through a process of self-reflection and critique, based on the problem-posing, dialogic model of Paulo Freire. It is suggested that use of such a model will require an extensive use of video with actual teaching/learning situations and the development of a framework for analyzing the teaching/learning process. Seventy-two references are listed. (LMM)
Research and Theory Division Symposium:
Application of Media Technologies
for Naturalistic Research

Video as a Means for Analyzing Teaching:
A Process of Self-Reflection and Critique

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Association for Educational Communications
and Technology National Convention
Anaheim, California
January 17-22, 1985
NOTE: The section of this paper on Teaching Effectiveness Research was written in collaboration with Professors Russell L. Dobson and Judith E. Dobson, Oklahoma State University.
Video as a Means for Analyzing Teaching:
Towards a Process of Self-Reflection and Critique

The interactive process of teaching/learning is a complex experience. Recent trends in studying teaching examine teaching behavior and its effects on student learning. Systems of codification of various teaching activities have been developed, and the analysis of teaching/learning continues and along with it the "need" for refining the process into more discreet activities linked with specific intended outcomes. This presupposes that teaching/learning can be reduced to measurable activities, corrected or reinforced upon proper identification. The more refined this process becomes, the more "scientific" the analysis.

In this paper I will argue that during the past two decades, research on teaching effectiveness can be identified within three differing paradigms: 1) the technical/"scientific"; 2) the humanistic; and 3) the person-centered paradigms. I will further argue that if we view teaching as an art or craft, and learning as an ever present process, rather than an "event," the real complexity of the teaching/learning experience can be clarified. To do this in a way different than the identification of discreet behaviors/outcomes, we will need to redefine the problems for analysis.

I will provide a theory-base, or rationale for extensive use of video in the analysis of teaching. My intention will be to clarify the theory-practice dilemma. I will suggest going beyond the use of microteaching as a form of analysis of discreet teaching activities. I will suggest going beyond an analysis of teaching through a process of self-reflection (reflective-teaching model—cf. Cruickshank, N.D.). I will propose a model for the analysis of teaching through a process of self-reflection and critique, based on the problem-posing, dialogic model of Paulo Freire (1970; 1971). This will
require an extensive use of video with actual teaching/learning situations, and developing a framework for analyzing the teaching/learning process.

TEACHING EFFECTIVENESS RESEARCH

During the past two decades three distinctly different approaches to the study of teaching effectiveness have been established. The research currently dominating the field reflects a technical rationality. Research efforts receiving token attention cluster around what is commonly referred to as humanistic teaching. An almost totally ignored area of research can be appropriately labeled person-centered teaching. The assertion that research related to the study of teaching effectiveness can be classified as either dominant, token, or ignored is dramatized when one examines the Encyclopedia of Educational Research (1982) and finds only one (Combs, 1962) humanistic reference listed under the sections titled Teaching Characteristics (Ryan & Phillips, 1982), and Teaching Effectiveness (Medley, 1982). The references listed for these two sections are studies reflecting a technical model while person-centered teaching effectiveness research is not reported. Additionally, the reader will immediately recognize that most major educational journals devoted to reporting teaching effectiveness research have followed a similar posture over the past decade.

THREE RESEARCH APPROACHES

Dominant Research: Technical

The majority of research on teaching effectiveness has focused on studies concerned with instructional methodologies and pupil achievement (Anderson, Evertson & Brophy, 1979; Fisher, Mariave & Filby, 1979; Good, Biddle & Brophy, 1975; Russell & Fea, 1963), teacher characteristics and teaching effectiveness (Brophy, 1979; Coker, Medley & Soar, 1980; Getzels & Jackson, 1963; Raskow,
Airasian & Madaus, 1978), and teacher behaviors as related to pupil achievement (Good, 1979; Joyce & Weil, 1980; Rosenshine, 1976; Withall & Lewis, 1963).

Studies of teaching of this nature have followed a technical-political model based on a scientific, rational explanation of human behavior. This approach to explaining effective teaching performance suggests that the proper blending of techniques and content will significantly increase student performance. This positivistic attitude views teaching as a science/technology with identifiable, observable skills that are considered to be the "practice" of teaching. While I am willing to admit there are certain teaching skills that can be taught and measured, I reject the notion that teaching is fundamentally comprised of the proper blend of techniques, methods, and skills.

The technical-rational model applied to teaching effectiveness suggests precise reasoning ("scientific accuracy") and predictability, and the nature of this model has an interest in control through management procedures. As the teaching profession has become an increasingly highly skilled technology with a primary emphasis on methods and outcomes, teachers have been rewarded for guiding their practice in ways that are amenable to this technology. As MacDonald suggests (1975), this notion implies that "teachers are potentially interchangeable," and leads to viewing productive activity as something learned and performed "mechanistically." Thus, any "good" teaching activity can be produced by any other teacher, and "all productive teaching is measurable in terms of the criteria of the accountability in use (pp. 79-80)."

Apple (1982) refers to this as a process of "deskilling-reskilling" the teacher:
As the procedures of technical control enter into the school in the guise of pre-designed curricular/teaching/evaluation 'systems', teachers are being deskilled. Yet they are also being reskilled in a way that is quite consequential. . . . while the deskilling involves the loss of craft, the ongoing atrophication of educational skills, the reskilling involves substitution of the skills with ideological visions of management (p. 256).

Tom (1977) contends that what is lacking in the managerial perspective is acknowledging interpersonal, or social relationships:

. . . these relationships cannot be reduced to a collection of techniques without debasing them and stripping them of their humanity. However, even if one rejects this humanistic concern, there is another fundamental problem. A technology must have definite ends toward which its activity is aimed. There is, of course, no long-term consensus on the aims of education (p. 38).

The lack of consensus on the aims of education within the technical model is not viewed as problematic because there are commonsense understandings of purpose within the model. The position here becomes one of value-neutrality, i.e. teaching and learning as apolitical.

Token Research: Humanistic

Running concurrently with the evolution of technical rationality as a base for studying teaching effectiveness have been research efforts reflecting a humanistic model. This movement is receiving little more than token attention (Peter, 1977; West, 1972). Research studies sensitive to the human aspects of the teaching-learning experience have included teacher expectancy studies (Davidson & Lang, 1960; Rosenthal & Jacobson, 1969). The process of
perceiving which precedes expectations is unique to each individual. Bruner (1958) contends that humans tend to maintain in consonance of their opinions, ideas and attitudes. Individuals, therefore attempt to minimize surprise by imposing a subjective consistency upon their environments.

The psychological credibility of the self-fulfilling phenomenon is perhaps one reason that research has continued despite the failure of Rosenthal and Jacobsen to provide totally convincing evidence (Braun, 1973). Neither Snow (1969) nor Thorndike (1968) deny the fact that teacher expectation may be a powerful force. Additional impetus has been provided by studies lending support to that phenomenon (Brophy & Good, 1970; Mendoza, Good & Brophy, 1971).

Interpersonal relationship studies and writings by Aspy and Roebuck (1980, 1982) Combs (1969) Dieken and Fox (1973) and Peterson (1979) can also be classified as humanistic literature currently receiving only token attention. After a review of the literature, Hamachek (1969) states that effective teachers appear to be those who are human in the fullest sense. They have a sense of humor, are fair, empathic, more democratic than autocratic and are able to relate easily and naturally to students on a one-to-one and group basis.

Research relative to learning climate (Anderson & Walberg, 1967; Combs, 1982; Dobson, Grey & Dobson, 1979; Sinclair, 1968) seem to point out the need for caring, understanding, openness, acceptance and genuineness. Rogers (1983) calls attention to the significance of research being done from a humanistic perspective when he states:

... this research provides convincing evidence— from two teams based on two continents— showing that students learn more, attend school more often, are more creative, more capable of problem solv-
ing, when the teachers provide the kind of human, facilitative cli-
mate that has been described . . . (p. 197).
Aspy and Roebuck (1983) further support Roger's statement when they
submit that their findings can be summarized with one statement:
. . . students learn more and behave better when they receive high
levels of understanding, caring, and genuineness, than when they
are given low levels of them (p. 199).

**Ignored Research: Person-Centered**

While these two distinctly different research approaches to the study of
teaching effectiveness have been occurring, a third and almost totally ignored
area of research also is being conducted. This seemingly ignored research
effort can be labeled as person-centered.

Beginning with Dewey (1910, 1964) there has gradually emerged a group of
educators who have come to view a teacher's philosophy as the basis for their
decisions about the educational process. Dewey believed that humans are in a
state of change and that goodness resides in them. The significance of
Dewey's thesis is amplified by Friere (1981) when he states, "Our pedagogy
cannot do without a vision of man and the world" (p. 338).

There is ample evidence to suggest that relatively few teachers have
developed internally consistent philosophies, i.e., teaching behaviors that are
in accordance with their professed beliefs (Brown, 1968; Kessinger, 1979;
Wright, 1980). Marshall (1973) contends that teachers proceed with an
eclectic approach comprised of bits of data from diverse psychological and
philosophical camps.

Considering this state of the art, it seems that a more systematic
treatment of teacher beliefs-practice congruency relative to instruction would
be useful. Wiles and Bondi (1979) suggest that educational philosophies are
the heart of purposeful activity. They contend that because teachers are confronted with multiple choices for schooling the young, it is vital that teachers understand their own values and beliefs about schooling.

Morris (1966) states:
A limit contingent of educators who have come to see the philosophical and educational problems as continuous has emerged. Philosophy and education are really two aspects of the same undertaking... the forming of those fundamental dispositions toward nature and our fellow man which the world demands of us. This has led to a going beyond educational aims and strategies to examine the relevance of a person's philosophical thinking in curriculum design, teaching methodology, and other areas such as administrative policy-making (p. 76).

Since teachers play a significant part in determining the educational environment, it is important to know something about their assumptions relative to the nature of humans. Wrightsman (1964) contends that the assumptions one holds about what people are really like influence one's interactions with others. Kelley and Rasey (1952) point out that teachers' basic beliefs about the nature of humans help to define their relationships with students. Combs (1962, 1982) further emphasizes the importance of a person's basic beliefs about the nature of humankind and the influence of this phenomenon upon human interaction in the educational process.

Social scientists have come to realize that people's assumptions about the nature of humankind can be conceptualized and measured, and it can be determined if these beliefs influence behavior toward others. Wrightsman (1964, 1974) developed an instrument for measuring people's beliefs about the nature of humankind, the Philosophies of Human Nature Scale (PHN). Research
using the PHN has been conducted in the area of making judgements of specific persons, belief differentiation among occupational groups, sex, family background, religious preferences, authoritarianism and attitude change, children's perception of the educational environment, non-verbal communication patterns, verbal-nonverbal congruency in the classroom, moral development, and pupil control ideology (Childress & Dobson, 1979; Deal, Dobson & Dobson, 1982; Dobson, Hopkins, & Elsom, 1973; Dobson, Sewell & Shelton, 1974; Mason, 1966; Wrightsman, 1974). These studies have attempted to identify and measure certain basic beliefs about the nature of humankind and have contributed normative data to the problem of interpersonal aspects of humans. Therefore, the results of this literature emphasize that the basic beliefs one holds about the nature of humankind comprise a viable force in the structuring of reciprocal interactions among people.

Inherent in a teacher's personal philosophy are assumptions about the purposes of schooling, the nature of knowledge, a view of society, and the person's position within that society. These views have an effect on what a teacher does in the classroom. How teachers organize curriculum, evaluate students, interact with students, and view themselves within the teaching-learning context are all affected by the basic philosophical orientation they bring to the classroom. Zeichner's (1979a, 1979b, 1980, 1981) research on the student teaching experience, teacher socialization and reflective teaching provides a rationale and direction for further research and also falls within the person-centered approach.

My bias support the need to go beyond the scientific-technical-rational studies of teaching effectiveness and examine more closely the humanistic and the person centered approaches. This does not negate the need for empirical-statistical analysis to the teaching/learning context. This does not deny
that there exists a set of teaching "skills" that may enhance the teaching/learning process. Microteaching and the Reflective-Teaching Model (Cruckshank, N.D.) are able to provide the tools for the refinement of and an analysis of these skills. Yet the humanistic and person-centered paradigm for studying teaching effectiveness identify a more complex array of variables that do not lend themselves to statistical analysis. Hence the need for alternative means of looking at the teaching/learning process.

**RESEARCH METHODOLOGY**

To conduct research within the humanistic and person-centered paradigms will demand alternative research methodologies. Elsewhere I have argued for, and provided a rationale for utilizing alternative conceptual frameworks and the implications these alternatives would have for the field of instructional technology (Koetting, 1979, 1981, 1983, 1984a, 1984b). I drew heavily on the work of Jurgen Habermas (1971) and Paulo Freire (1970, 1973). My concerns remain the same, i.e. the need to focus our attention on epistemology and philosophical conceptions of the process of schooling.

**Codification**

To arrive at an interpretive or critical understanding of schooling (epistemological issues), we will need to question (pose as problematic) our common-sense notions of schooling. This can be done through an extensive use of video-taping within actual classroom settings.

Instead of using video within a micro-teaching and self-reflective teaching model of analysis, video-taping should occur during entire class periods, over an extended period of time. This video-taping process constitutes Freire's notion of codification (1970). Codification consists of re-presenting the object of reflection (in this case, the classroom teaching
experience) to the subjects (teachers/students), in a form identifiable to them, and related to their experience. For example, Freire used photographs and drawing's depicting the existential situations of the people with whom he worked. The visuals used were familiar to his subjects because they contained situations and events based on the subject's own descriptions of their life-situations. These codified visuals become the objects that mediate the subjects in their critical analysis (decodification). The codifications become "cognizable objects, challenges towards which the critical reflection of the decoders should be directed" (Freire, 1970, p. 107). The cognizable objects, visual representations of the subjects in life-situations, posed as problems to subjects, depict the situationality of the subjects. Self-reflection upon this situationality is reflection about the very "condition" of existence, namely, "critical thinking by means of which men discover each other to be 'in a situation'" (Freire, 1970, p. 100). When this situation, or context, is seen as an "objective-problematic situation", subjects reach the stage wherein the ability to intervene in their self-formative, historical context becomes a possibility.2

This process of codification will keep us focused on the person of the teacher (beliefs-practice, self-reflection on the self-formative process-person-centered paradigm) and allow us to use classroom settings "as is" for data gathering. We will then use Freire's theory of dialogics in decodifying the individual teacher's/student's understanding of the schooling context.

Theory of Dialogics

Freire's theory of dialogics can be most effectively examined through naturalistic inquiry. Dialogue is the 'encounter between men mediated by the world, in order to name the world" (Freire, 1970, p. 76). There are certain conditions required of subjects who enter into dialogue:
1. a profound love of individuals
2. humility
3. an intense faith in man (this is an a priori faith in the person)
4. trust (established through dialogue)
5. hope (rooted in the person's incompleteness, and recognition of that incompleteness; constant search)

These requirements demand total commitment to the process of dialogue from those who choose to enter the dialogic relationship. They are neither naive nor unworkable. They become, for subjects engaged in emancipatory praxis, a basic orientation to life.

The term critical thinking, as a necessary element in dialogue, needs to be pursued and delineated further. Critical thinking is thinking which discerns and indivisible solidarity between the world and men and admits of no dichotomy between them -- thinking which perceives reality as process, as transformation, rather than as static entity -- thinking which does not separate itself from action, but constantly immerses itself in temporality without fear of the risks involved. Critical thinking contrasts with naive thinking, which sees 'historical time as a weight, a stratification of the acquisitions and experiences of the past,' from which the present should emerge normalized and 'well-behaved.' For the naive thinker, the important thing is accommodation to this normalized 'today.' For the critic, the important thing is the continuing transformation of reality, in behalf of the continuing humanization of men (Freire, 1970, p. 81).
Dialogue requires critical thinking and is capable of generating critical thinking. Communication is based on dialogue, and education is based on communication. Communication is concerned with meaning, understanding. Concern for meaning and understanding centers our efforts within the humanistic and person-centered paradigm for research.

This process of dialogue identifies the power relations within the classroom. Shared responsibility for what goes on is vitally important. The dialogue focuses on "what do we want to happen in here, what is actually happening in the classroom," and "what are the possibilities for individuals to affect change in their daily lives."

**Decodification**

The process of decodifying an individual teacher's/student's understanding of the schooling context consists of teacher-student, students-teachers reflecting critically (dialogics) on the mediating object (in this case, the video-tape of their classroom situation), thus externalizing their understandings of, and consequently making explicit their "real consciousness" of the schooling situation. During this time, through dialogue, interpretations are challenged and understandings questioned, constantly posing the object of discussion as problematic. Through this process of consciousness raising, subjects can arrive at a greater awareness of the social context which forms their lives, and also create awareness of their capacity to intervene and transform it (cf. Freire, 1970, pp. 100-108).

The process of decoding the mediating objects under analysis thus consists in investigation of the subjects' thinking concerning their life-situation. Personal understandings become educational. At the same time "all authentic education investigates thinking" (Freire, 1970, p. 101). Investigating the subjects' thinking leads to further investigation, hence
education and personal understanding are "simply different moments of the same process" (Freire, 1970, p. 101).

When subjects begin to make explicit their views of the world, they begin to see how "they themselves acted while actually experiencing the situation they are now analyzing, and thus reach a 'perception of their previous perception'" (Freire, 1970, p. 108). Achieving this awareness, reality is perceived differently: "By broadening the horizon of their perception, they discover more easily in their 'background awareness' the dialectical relations between the two dimensions of reality." Thus the process of decodification brings about new perceptions and the development of "new knowledge" (Freire, 1970, p. 108).

The framework within which the decodification process could take place would be philosophical in nature, i.e. concerned with the theory/professed theory of the teacher (beliefs/practice). Analysis of the philosophical base of the teacher regarding beliefs about learners, the purpose of schooling, the notion of knowledge, what is of value, the nature of social relations within the classroom, etc., could all be areas for analysis. What it is teachers/students say regarding schooling, and what they actually do can be dramatically re-presented to them through video-tape. If there is discrepancy, it will become evident (level of awareness), and although a changed or more informed praxis cannot be guaranteed, the opportunity for positive change is present. In short, this form of analysis would allow us to explore the culture of a particular classroom, and would keep us directly within the person-centered paradigm of teaching effectiveness.4

CONCLUSION

There are valid alternative frameworks for analyzing school problems/issues. I believe it to be in the interest of the field of instructional
technology to broaden its theory-base and explore other literature within education and to integrate different theory/practice within our conceptualizations of the field. Different frameworks for defining the process of schooling ask different questions for research. The field of instructional technology has much to offer the general field of education. The research potential is great.


3. Freire's notion of "teacher-student with students-teachers" suggests the shared responsibility that exists within the classroom setting. The teacher is student, and the students are teachers. This is not a problem of semantics, but a reality. We learn from each other.

4. I believe Elliot Eisner's (1979) notion of educational connoisseurship/educational criticism is important here. See also Dobson, Dobson and Kessinger (1980), who propose a model for Staff Development that examines an individual's philosophical beliefs and teaching practice.
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