The philosophical and sociological foundations of educational research.

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Introduction

Criteria of truth and their schemata have evolved out of historical social practices. Interpretations of social events are guided and constraint by the prevailing rationality which in itself reflects the dominant constellation of power. Different power relationships arise within different historical epochs which call new forms of subjectivities into existence to form new social practices. This paper does not see education within an ahistorical, depoliticized and positivistic fashion. Followers of any philosophical school, may that be, for example, Phenomenology, Empiricism or Marxism, merely indicate their schemes of interpretation so that their interpretation is necessarily constrained as they follow a particular ideology.

This paper will adopt an holistic approach towards an educational phenomena through the application of a critical and reflexive pedagogy and thereby may contribute towards an educational theory through a fusion of philosophy, sociology and historical schemes.
which may impinge on educational practice.

This paper considers philosophy of knowledge as an activity so that a sociology of education can be derived in order to undertake various studies in education; for example, on the distribution of power through the implementation of pathways through curricula policy. Hence, the philosophy in this paper is one of practice. A sociological analysis based within a philosophical framework is vital not only to reveal the underlying connections between education and truth, rationality, knowledge and power, but also to support possible pedagogic alternatives. The philosophical content of this paper will serve as a means to elicit sociological questions of cultural transmissions and social mobility which of course have to be tested through an empirical analysis.

A philosophical underpinning of a theory of knowledge and hence of education is essential to derive working hypotheses of comprehensive application. A philosophy of praxis does not promulgate a telos or final truth but amends itself through constant practice modification; indeed, as the aim of education is largely determined by the prevailing praxis of the day, it also will be modified by a change in praxis.
Scientific Assumptions in Educational Research

Habermas (1987a) defined three different approaches of conceptualizing social scientific research; each of them is based on different assumptions that knowledge can serve human interests. The empirical-analytic sciences promote technical interests through instrumental reasoning and values, the historical or hermeneutic sciences promote practical interests through values derived from a communicative action, and the critical sciences which serve emancipatory interests through the elimination of distorted communication.

Furthermore, educational researchers may be divided into two separate schools of thought: the orthodox who follow the empirical sciences, and the heterodox who pursue the phenomenological arguments; while the former is concerned with empirical research and statistical analysis, the latter regards organizations as social inventions and as permeated with ideology. For the heterodox school, it is experience which is the essence of reality, while the orthodox subordinates experience to behaviour. Logical positivists who dominate the orthodox school, try to separate values from facts and ignore morality and freedom of choice, while the heterodox school and critical theorists believe this to be the more important part of educational research.
It will be argued that positivism, rather than promoting objectivity, becomes the 'cult of science', an ideology reflecting the interests of the status quo, whereby private interests are represented as public good. Knowledge is controlled and selective so that the poor remain ignorant and are kept in illusions by the use of metaphor and ideology. An ideology then becomes a way of life with socially constructed morals, values and beliefs. Organizations can be used to rationalize and legitimize irrationality by means of institutionalization which is supported and legitimizied by science and technology whereby science has become an ideology. Indeed, Science can then be seen as quantified rhetoric; thus, Feyerabend (1975b:6) saw science as "just one of the many ideologies that propel society and it should be treated as such", and he did by stating in a later work that "there is no distinction between logic and rhetoric. The 'subjective' and the 'objective' side of an argument merge into one ... Notions with clearly defined intensions, Such as 'science', 'myth', 'metaphysics', are incapable of capturing distinctions between elements (subtraditions) of a historical tradition" (Feyerabend, 1981b:6).

Positivists try to separate facts from values and thereby create a misrecognition of such social interests which determine what counts as legitimate knowledge, whereby subjective values are turned into objective facts. However, educational research is a matter of choosing between alternatives, thus values cannot be
divided from facts; rather than misrepresent values as facts, or denying its existence, educational theory must de-code the ideological mystification which distorts individual perception of present social conditions and thereby leads the way to a practical emancipation from domination. Praxis which deliberately introduces ethics and values into the decision-making process of educational theory and management, can then be regarded as the link between theory and practice, that is, a philosophy-in-action.

The orthodox school is represented by social theorists, such as Simon (1957:56-59) who recognized the difficulties in separating facts from values, but nevertheless believed that administration can be made scientific by preserving the task on deciding on values for the democratic political scene. Simon (1957:177) was concerned about the "importance for the maintenance of democratic control over the value elements in decisions". Educational researchers and administrators are then only concerned with the 'scientific' implementation of such values which have been decided outside the administrative machinery. Yet Simon cannot tell administrators how values actually can be removed from administration, simply because there is no solution, values cannot be removed. Thus the central issues of administration are philosophical rather than scientific. And this arguments can also be applied to educational research. Values are the result of human beliefs and actions and therefore can only
be subjective. Personal values are then reflections of one's own subjective existence.

The penetration of positivist science ever since Taylor's scientific management tries to increase the control by a technical elite, where administrators are thought to be concerned only with the factual verification of decisions, rather than with their ethical content. Simon (1957:248) claimed that administration can be made more scientific by ignoring ethical content in the decisions-making process. Thus, he stated that: "in so far as decisions can be said to be 'correct', they can be translated into factual propositions. Their ethical element must be eliminated before the terms 'true' and 'false' can be applied to them". In a later article, Simon (1975) developed such ideas further and refers to management science as "meta-technology" designed for the objective application of technological systems. Such techniques ignore a value system in which broad social and human interests are reflected. The positivist decision-making model "rationalizes choice as such by means of calculated strategies and automatic decision-procedures" (Habermas, 1971:63). Rather than ignoring values, Hodgkinson (1978, 1983) would use such values as a guide line for research and action in educational administration.

Educational research has to be concerned with a philosophy of practice and therefore cannot separate itself from moral issues.
and the prevailing ideology. Researchers who believe that their research is objective and value-free simply implement such subjective values as enshrined in the preconceived methodology. However, researchers are often prevented from realizing their inadequate practical understanding so that "the practical efficacy of theory has now fallen prey to methodological prohibitions" (Habermas, 1987a:304). As Bourdieu (1991:253) commented "[t]he sociologist's mtier is ... a theory of the sociological construction of the object, converted into a habitus", a practical mastery, a practice without reflection; so that 'method' is a powerful factor in shaping human life, it avoids criticism and has no fundamental commitment and therefore supports the present social order. Furthermore, educational research is guided by the educational philosophy of the day which is not specifically spelt out.

Thus, Carr (1985:126) stated that "attempts to use research strategies that are infused by one set of educational values to study educational practices that are infused by another is, to say the least, misleading", because in such case, "results should not be taken too seriously. These results are not so much objective scientific knowledge as the predictable outcome of the educational values in terms of which the research was conducted" (Carr, 1985:126). Furthermore, educational philosophies always presuppose assumptions about human nature which are made a priori to any experience that may be investigated.
Research literature in education can be classified according to two main sets of assumptions, those about society and those about social science. Assumptions about society define it basically as being either subject to fundamental conflict or being orderly regulated. Popkewitz (1984:13) remarked that "theories of pedagogy are rooted in social conflict about the location of social order and authority". Assumptions about social science will include other assumptions about the ontology of the social world, about epistemology, about methodology and about human nature.

Burrell and Morgan (1979:25-35), using these two main sets of assumptions, came up with four paradigms: the functionalist, the interpretive, the radical humanist and the radical structuralist paradigms. Some writers, such as Hopper and Powell (1985) combine the last two radical paradigms. Using the four paradigms of Burrell and Morgan (1979), those sociologists who advocate radical change can be divided between those holding 'subjective' and those holding 'objective' views of society; the former are associated with the Marxian school of Lukcs, Gramsci and the Frankfurt School, while the latter are associated with the Marxian school of Althusserian structuralism.

However, such dichotomies do not have to be mutually exclusive, as Burrell and Morgan (1979:25) assumed them to be, neither are
they a permanent fixture as they necessarily change from epoch to epoch, simply because societal order and the assumptions underlying human rationality are context-dependent and change throughout history; thus Burrell and Morgan's dichotomies can attempt to identify only current perspectives. Burrell and Morgan (1979:25) recognized that "one can operate in different paradigms sequentially over time". If Burrell and Morgan's dichotomies are mutually exclusive, then they cannot account for Habermas' (1987a) argument that while individuals live within structures of domination in society, they nevertheless can shape meanings and may act accordingly. As Burrell and Morgan (1979:25) themselves explained, the four paradigms are "different ways of seeing. A synthesis is not possible, since in their pure forms they are contradictory, being based on at least one set of opposing meta-theoretical assumptions". Theorists who switch from one paradigm to another are said to make a "conversion experience", but it cannot be argued that a particular choice of paradigms cannot be justified on rational scientific grounds. They believed this to be Kuhn’s argument when in fact Kuhn (1970:199-200) merely pointed out that traditional notions of what constitutes rational scientific choice are incomplete and therefore need to be modified so that the extent of rationality of a choice may be known. Kuhn does not advocate irrationalism; he merely argues for a wider rationality instead of the present rigid rationalism.
Paradigms compete with each other whereby one particular paradigm is dominant within a particular society or a particular time; the dominant paradigm shows which view is dominant at one point in time but which will be succeeded by another paradigm in the future; so that scientific progress is the result of competing paradigms. Within the social sciences, multiple paradigms can exist side by side, each explaining different views of reality.

Paradigms and Their Philosophical Assumptions

Popkewitz (1984) showed that the rationale for regarding educational research as being autonomous from philosophy and history is little more than a contrived rationalization in order to conceal the use of social, philosophical and ethical assumptions. Different methods in educational research and administration are mere reflections of different philosophical assumptions about the nature and purpose of social scientific inquiry; such philosophical assumptions are embedded in intellectual traditions which are themselves formed by historical factors.

According to Habermas (1971), there are three alternative paradigms for educational research which promote separate views of the nature of society and hence have different goals. The "empirical-analytic sciences" serve a "technical interest" in social manipulation and control, the "symbolic sciences" serve a "practical interest" in clarifying the conditions for
communication and intersubjectivity, and the "critical sciences" which serve an "emancipatory interest" in de-mystifying the social condition. The empirical-analytic and the symbolic approaches are by their advocates and practitioners assumed to be neutral and disinterested in educational outcome. However, Popkewitz (1984) described them as an "ideological fiction", and instead advocated the use of "the critical sciences". Within the critical sciences, theoretical questions about the nature of social knowledge and practical questions about its purpose are mutually constitutive and dialectically related.

Each such paradigm makes different assumptions and therefore pose different questions. Researchers internalize not only the methods of their paradigms, but also their assumptions and values, so that "they become the scientists' imputed world" (Popkewitz, 1984:33). When individual values become institutionalized they become organizational values. Researchers like any other members of the community are socialized so that they will internalize organizational values and therefore will believe that such values are their own. Educational researchers and social theorists alike arrive at judgments which are necessarily based on their interpretations of social reality; such interpretations will depend on the dominant ideology to which they have subscribed.

Researchers who believe their work to be scientific, will assume that their activity is hypothetico-deductive, objective and
value-free. It ignores the hermeneutic-dialectic and critical traditions and is therefore restrictive. As Sergiovanni (1984:288) pointed out: "deciding what to 'do' is the sine qua non of a theory of practice. Yet informed doing requires that one considers what is (descriptive science), what ought to be (normative science), and what events mean (interpretative or hermeneutical science)". The hermeneutic tradition can be seen as an historical-interpretive mode of inquiry which fuses the perceptions of the subjects (those under investigation) and the scientist (the investigator). It thus helps to see the oppressed through the eyes of the oppressed rather than through the eyes of the oppressor, thus making emancipation possible.

Griffiths (1979:43) declared that "virtually all of the research being done in educational administration can be characterized by what Kuhn calls 'normal science', that is, research on problems derived from the now-accepted paradigm". Kuhn (1970) however demonstrated that paradigm choice is necessarily a value-based decision between incompatible modes of scientific life; thus educational administration and research can be considered as a "multi-paradigm science". Within the social sciences, such multiple paradigms can exist side by side, each explaining different views of reality.

Progress within scientific endeavours comes about through shifts in the paradigms which result from a re-structuring of scientific
activities. Kuhn (1970) showed that science does not progress in a linear fashion but rather through structural revolutions which occurs when a new paradigm, with different set of assumptions, successfully challenges the dominant paradigm. Every paradigm is by nature limited within a particular era, when new knowledge or other assumptions evolve, eventually old paradigms yield to new paradigms.

Progress in educational research is not the result of accumulated findings within the same paradigm, but rather the result of continuing research programs which confronts and overcomes past theoretical inadequacies. Thus, Carr (1983:41) stated that "[s]cientific rationality is not ... achieved simply by conforming to a set of unambiguous methodological rules". Researchers' more often than not operate from a preconceived theoretical framework which has become enshrined through traditions as common sense and therefore is rarely questioned. As educational philosophy and their theories have to be tested against educational practice, researchers have to be prepared to amend their theories if necessary.

The dominant paradigm together with the social context provide the background which is not analyzed as such, neither is it questioned, but instead, conditions individuals into values which are part of a Realethik, that is, what ought to be done given the realities. The Realethik is not spelled out either, so that the
masses are kept in illusions and so can be manipulated; this is "the ethics of the agentic state" (Hodgkinson, 1983:90).

The dominant pragmatic instrumental paradigm within schools which sees education as a means to an end and which is assessed through a cost-benefit analysis, is not only inappropriate for the achievement of personal motivation, but actually may prevent students from doing so. Furthermore, empirical findings are meaningless without a prior conceptual investigation; in fact both are required as they complement each other. Postmodernist and poststructuralist conceptualization of life is primarily concerned with the meaning of existence, whereas a positivistic driven paradigm adopts an instrumental view of education. However, an understanding and conceptualization of social reality entails the inclusion of the subjective meanings.

Answer to educational problems often depend on the prevailing paradigm, as such paradigms are shifting, so will the answers; and educational questions were always determined by political factors of power and domination. However, different questions will elicit different research methods and indeed may be eclectic; to advocate a single research method would imply the denial of different values in education. Thus, scientific method and value-laden research are not mutually exclusive but instead may reinforce each other. Furthermore, educational research which deals with issues such as literacy, academic versus vocational
educational, quality of education versus expansion of education, or market-oriented versus state dominated education cannot ignore the underlying political forces; especially as schooling is seen by students and parents as a means to enter the job market, so that educational parameters are determined by the political and socio-economic structures of society.

A critical research methodology is required to foster an emancipatory education. On the other hand, educational research which is embedded within a positivistic paradigm guided by hypothetico-empirical deductive reasoning assumes that its research is free of any political ideologies and thereby reinforces the status quo. However, as Torres (1995-96:318) succinctly argued, "the consequences of depoliticization are not better research findings but the eventual eradication of political and moral questions from schools and public life."

Instead, research in the area of social mobility and cultural transmission may investigate the rationality for the underlying cultural processes of schooling. The social structure within schools has to be seen within their social context; that is, educational research may relate structures of schools to the macrostructures of social life so that social structures may be revealed as they impinge on class, status and power, and thereby facilitate domination and control. Such research may not only reveal such structures but may actually make an emancipatory
pedagogy possible.

Values and Constructed Reality in Research

Feyerabend (1975) exposed the myth of a deterministic scientific method and rejected that it has any claim to fixed rational criteria; he especially criticized the "deification" of science in contemporary society. Gadamer (1989) too maintained that method has transfigured the ontological substance of understanding. Such arguments are essentially concerned with concepts such as objectivity, subjectivity, rationality, realism, and norms which are all part of one's own values and ideology. For Popper (1979), the increase in subjectivism and relativism at present opens the "floodgates to irrationalism and fanaticism"; however, Feyerabend (1978) criticized Popper and other critical rationalists for their "stagnant" position which may lead to dogmatism and hence curtailment of freedom. Thus, rather than being the defender of the "open society", Popper (1963) would expel Marxists and psychoanalysts alike, for they do not conform to his notion of "evidence". Of course, this would reduce the likelihood of critical discussions of alternative views which Popper so much advocated in the name of scientific progress. Popper maintained that the quest for scientific progress is an attempt to ascertain the conditions when theories are to be discarded; however Popper's "falsification theory" was rejected by Kuhn (1970) who believed that science is determined by dominant paradigms and progress by the overthrow of existing...
paradigms. Whether the resulting "gestalt-switch" is an improvement of the replaced paradigm will depend on one's own value judgment.

Furthermore, Popper underrated the influence of politics and ideology which impinges on scientific investigations because they will have to be interpreted. According to Kant (1970), the world can only be known by interpreting it; such interpretation is determined by one's own consciousness which will depend on one's social existence (Marx and Engels, 1977). With a change in real existence, people's thoughts and the products of their thoughts will change accordingly; thus, the dominant ideology always represents the interests of the dominant social field. Such ideology is then a systematic attempt to demonstrate the rationality of the existing distribution of wealth, which then becomes legitimized.

Values cannot be subject to quantification, verification or falsification; as their existence is subjective, they are beyond the reach of positivistic science. As Greenfield (1980:43) pointed out "the rationalist fails to appreciate ... that facts decide nothing; it is people who decide about the facts". Values are most important because only they can give meaning to life. But as facts are of a different ontological category than values, they cannot prove values, thus, as Popper (1979) pointed out that it is not possible to "get an ought from an is". Nevertheless,
with any interpretation of empirical data, some values will be confirmed and reinforced whereas others will be undermined.

Hodgkinson (1983:36) maintained that values are part and parcel of the decision-making process and believed that "value problems pervade organizations throughout all levels of the authority hierarchy and excessive rationality becomes a pathology, a sort of fascism of the intellect where value sensibilities are attenuated or eliminated by an inappropriate military dressage". Hodgkinson regarded administration not as a science, as positivists such as Simon do; but rather as belonging to the humanities. Thus, educational administration and research as applied humanism must include philosophy as it involves decision-making about values.

By introducing ethics and values, the educational researcher's own subjectivity becomes open to scrutiny whereby in "scientific research" it becomes disguised as it has become "legitimized" through the application of scientific method of analysis, whereby subjectivity then becomes constructed objectivity. Quantitative studies and their interpretation rely heavily on theories which have been constructed before quantification, whereby scientific laws are constructed from a rhetoric of tradition; furthermore, as Kuhn (1977) pointed out "the road from scientific law to scientific measurement can rarely be travelled in the reverse direction".
This then is the misconstruction of reality in empirically driven educational research which ought to be exposed by the use of praxis which introduces ethics and values into the decision-making process and thereby leads the way to a practical emancipation by raising people’s awareness through the application of research as philosophy-in-action.

Educational Research and Social Praxis

Educational processes take place in a setting of human interaction within complex organizations which reflect the underlying political, social, cultural and economic factors of the particular time. Thus, schools must be analyzed as institutions within their social-economic setting. Hence one can speak of a politics of education as a field "relating to political and bureaucratic structures, to ideologies and goals, to policies and policy-making and to political authority, influence and legitimation" (Harman, 1979:30).

But the language of instruction and of administration tends to be perceived as apolitical and ahistorical whereby the ideological and economic power relationship which affects the organization of curriculum and schooling remain hidden not only from the public but from the educators themselves. Such misapplication of the linguistic habits of science and technology has been described by Stanley (1978) as "technicism" which has
to be carefully examined to prevent a "subjugation by metaphor".

If the covert mechanism for power relationship, class structure
and legitimating ideologies are ignored by researchers, they
implicitly will support the status quo. Educational research all
too often avoids questions of power, control and emancipation so
that "[t]he ceremonies and rituals of research give the practice
legitimacy and sanctity" whereby "the only problem of schooling
is implementing technologies" (Popkewitz, 1984:23).

Furthermore, gross inequalities such as described by Kozol's
(1991) Savage Inequalities are often perceived as political or
extreme and hence are disregarded. Nevertheless, a paradigm shift
in educational research has occurred, even though the
positivistic, hypothetico-deductive reasoning is still largely
dominant. The verbalization of educational problems through
communicative action (Habermas, 1984 & 1987b), rather than
quantification may open up a new discourse in educational
research. Carr (1983:37) contended that "the testing ground for
educational research is not its ability to conform to criteria
derived from the social sciences, but rather its capacity to
confront these problems in a systematic way".

As education is intertwined with political, cultural and socio-
economic factors, educational research has to put education in its
context; for example, the structure of the curriculum cannot be
assessed without not simultaneously considering the power
relationships that impinge on the curriculum. Educational research is embedded within social theory and hence principles of social interests and their legitimacy. Theories of pedagogy act as a social agency but its currency will depend on the prevailing paradigm of power which allows such agency to develop into a social policy.

If educational research loses its connectedness to other social fields, then it loses its relevance. If educational research is to be relevant to educational and social problems, it cannot ignore the complexities of such problems. However, stringent statistical techniques intend to make such research atheoretical so that they simplify "the situation in a manner that hinders the search for understanding" (Popkewitz, 1984:21). Educational research intend of solving educational problems has to go beyond the mere explanation of teachers' interpretation of their practices; instead they have to be subject to a critical analysis.

Carr (1983:40) advocated a research methodology in education which "is 'interpretive' in the sense that its theories are grounded in the perspectives of educational practice and 'scientific' in the sense that these theories provide a coherent challenge to the interpretations which practitioners actually employ". As social sciences share with natural sciences metaphysical foundations, the recognition of metaphysical
assumptions in educational research does not diminish its scientific status but merely reveals the educational values which it promotes. Problems within educational or any other social scientific research result from the theoretical background from which theoretical models have evolved, rather than from human actors who happen not to conform to such models. In this case, a reformulation of the theoretical framework is required.

Politics cannot be separated from education, especially as the agenda in schools is not determined within the classroom but rather by political and socio-economic factors. It is therefore inevitable that education often functions as an ideological inculcation to further "common sense" and "social conformism" (Gramsci, 1971) and thereby establishes a given hegemony which is seldom questioned. Such hegemony, as Gramsci (1971) pointed out, reproduces and confirms the prevailing social relations between the ruling and subordinate classes. If this is the case, then politics within education cannot be ignored in educational research as it has ethical and epistemological as well as analytical implications for research methodology. Of course, educational practice does not need a theoretical or philosophical insight for its practitioners to get by, but they are vital to develop new concepts which may further educational practice.

Educational researcher will have to ask: research for what end? A critical research program combines the material realities of
the school with a dialectical reconstruction of the aims of education. If schools are frozen institutions, then a snapshot will suffice. However, social changes exert their forces on educational institution. As education does not exist in a vacuum, research in education has to go beyond a narrow scientific approach. Researchers have to come to terms with the underlying problematic of the subject to be investigated before an appropriate research methodology can be determined.

The real issue at hand then concerns the power relationships between various groups of the society. If schools can be seen only in reproductive terms, whereby schools reflect economic relations, then praxis applied in schools cannot produce any change whatsoever; but reproduction theories are inadequate in so far as they ignore the power relationship between people and the organizations in which they interact. Willis (1977) actually has shown how schools function as "sites of ideological production” in ways filled with contradictions within a dialectical process of contestation and struggle.

Theories that focus on power and domination in their emancipatory aim challenge the prevailing reason's claim to universality. Praxis too can never be universal as praxis particularizes theories at the local sphere. Theories are historically evolved and are not blue-prints for predictions but rather open up new possibilities. An Habermasian and Foucauldian social theory may
usefully enter educational research and schooling to increase the reflexivity of researchers, teachers and students alike. However, institutional practices often constrain the possibility of an emancipatory pedagogy.

Critical theory may be utilized in educational research to assess the relationship between schooling and society; to determine the relationship between knowledge, power and curriculum; and to assess the nature of teaching methods. For example, critical theorists may challenge the legitimacy of knowledge and may advocate the incorporation into the curriculum of personal knowledge and lived experience of the students as legitimate knowledge.

Social interests determine what counts as legitimate knowledge, rather than intrinsic autonomous elements of cognition. Cognition itself cannot be separated from practical interests; thus positivism, by trying to separate facts from values, creates a misrecognition of such interests which guides such knowledge, whereby subjective values are turned into objective facts. A critical theory seeks to penetrate the ideological mystification and forms of false consciousness which distort an individual's perception of present social conditions and thereby makes possible a practical emancipation from domination.

Habermas (1974:282) saw "the danger of an exclusively technical
civilization, which is devoid of the interconnection between theory and praxis" as being threatened by the splitting of its consciousness, and by the splitting of human beings into two classes - the social engineers and the inmates of closed institutions". To overcome such a situation, a critical theory applied within educational research can be seen as a way of achieving emancipation through critical self-reflection which presently is cut short through distorted communication which promotes technocratic domination.

Thus, a critical theory suggests an alternative style of research, one aimed not at control but rather at assisting individuals in discovering and pursuing their own developmental needs. Regressive social conditions exist partly because people are unclear about their needs. A critical style of educational research would seek to assist individuals in discovering and then pursuing their own needs and interests.

A critical theory is more concerned with what social 'facts' conceal, rather than what they reveal; the task then becomes one of demystifying the false appearances of the present to allow emancipation in the future. Horkheimer (1982:215) argued that theoretical concerns must be translated into viable pedagogical tools if social change is to be affected; so that the theoretician's "presentation of societal contradictions is not merely an expression of the concrete historical situation but
also a force within it to stimulate change”.

Educational research guided by a critical theory would not ignore values but instead would use them as a guide line for research into such areas as the hidden curriculum and the ideological framework of schooling. Contradictions within schools and society at large are institutionalized in cultural and organizational forms; thus, organizations can be seen as a microcosm of society which reflects its alienation. A focus on totality permits the integration of micro-and macro-levels of analysis; whereby exploitative relations at the societal level are seen as reflected by and effected through organizations (Habermas, 1987a; Foucault, 1977).

One of the most important concepts in critical theory concerns the relationship between parts; that is, between individuals, groups or organizations, and the whole, the society at large. The particular exists only in and through the totality of relations of which it is a part. An understanding of totality, which embraces both the objective and subjective worlds, must precede an understanding of its parts, since the whole dominates the parts. Thus things considered as isolated parts are incomplete because any finite thing is both itself and its opposite. The comprehension of a finite thing can only be achieved by understanding the set of relations that surrounds it. Thus, processes of education exist only in the context of, for example,
teachers, students, parents, interest groups, classes and the
organizational framework of the schools and the education
department. Furthermore, to understand a single organization, it
has to be seen in relation to the organizations with which it
interacts. Individuals must be seen in relation to the
organizations with whom they interact or of whom they are part;
for example, teachers must be seen not only in the context of
their school, but also in their relation with the teachers union.

Educational philosophers, educators, administrators, as well as
researchers are involved directly in the process of education;
they cannot consider themselves as detached spectators who are
not concerned with the outcome of education. Such outcome depends
on the formal transmission of controlled knowledge which is a
political process embedded within the fact-value dichotomy. A
critical theory of educational research therefore rejects
positivist assumptions about ‘objective’ social experience and
instead argues in agreement with Gramsci and Freire that practice
is inevitably theory-laden. Freire (1972) described as
objectivism the separation of objectivity and subjectivity and
denying the latter, whereby the denying of objectivity
constitutes subjectivism. Freire’s conception of an emancipatory
pedagogy may be related to an epistemology as advocated by
critical theorists.

Habermas (1974:216) argued that scientific description is "not
independent of standards which are used, and standards rest upon attitudes which are in need of justification through supporting arguments". Thus, the methodology of science cannot be seen in isolation from the norms and attitudes of the scientific community or from the community at large; this being true, it can be argued that it is possible to have a social science which is neither purely empirical nor purely interpretative. The Frankfurt School's attack on positivism is here the most crucial. Pragmatism can be described as a non-theory because, as Aronowitz (1982:xvi) pointed out, "the test of truth [for positivists] os its practical value for the achievement of human ends. Reality itself becomes an object of manipulation through human practice ... Thus the problem of the difference between subject and object is thoroughly subjectivized". Thus, critical theorists see individuals as interacting within a matrix of intersubjective meanings which can only be understood by social scientists if they learn the language of their subject/object. In educational research, critical theorists step outside a positivistic mode of analysis of emphasizing technological rationality and thereby emphasize the role rather than the function of schooling.

Critical theorists, like phenomenologists, maintain that people's action and behaviour depend largely on their perception of the world around them. The connection between perception and action is important in an analysis of educational institutions as it carries such analysis beyond the 'correspondence theory' (Bowles
& Gintis, 1976). The correspondence principle maintains that there is a direct correspondence between the schooling process and the economy as directly replicating the structure of authority and control, and thereby producing the division of labour required for a capitalist economy. However, schooling in capitalist societies does not merely ape in the classroom the relations of production, but creates its own forms of educational hierarchy and control.

Conclusion
Whereas an empirical-analytic research paradigm searches for law-like regularities, the critical research paradigm is concerned with the historical development of human interests and domination. The empirical-analytic paradigm regards social systems as consisting of independent sets of variables, whereas critical social scientists seek to reveal the social interrelationship through an understanding of the totality of the systems. The third paradigm in educational research concerns itself with symbolic or linguistic inquiry which studies the development of rules through human interaction.

It is a theoretical and philosophical concern through which pedagogic and social aims may be developed and implemented; whereas the empirical data serve to establish how far we are situated in accomplishing such aims. Praxis after all, is not merely the reciprocal relationship between theory and practice,
but it is a synthesis between action and reflexivity so that a praxis is embedded within people's everyday life existence.
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