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A Diagnosis of Tenets of the Research Process: What is it to Know Anything?

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Abstract
This paper explores the tenets of the research process, that is, the processes involved in gaining new knowledge on a problematic phenomenon. The paper examines philosophical standpoints adopted by researchers and where such standpoints might be located in the knowledge sphere. For the reader to get a better understanding of issues related to knowledge, a comparison between a priori and a posteriori knowledge is made as well as discussions on the sub-disciplines of the philosophy of education, namely epistemology, ontology and logic. The place of these sub-disciplines of education in knowledge creation cannot be overemphasised and hence their understanding is paramount.The authors argue that researchers are conformists who follow established systematic ways of doing research. Also, doing research is viewed as a human action and deciding on a particular research approach derives from the nature of the social phenomena to be explored as well as what the researcher thinks will work in the particular situation s/he finds her/himself in.
Keywords: research process, knowledge, epistemology, philosophical assumptions, paradigms, feminism.

1. Rationale for philosophical underpinnings in a research process

Undertaking research work is a process guided by philosophical principles acceptable to the research and academic communities. Researchers live in communities and think in terms of a shared and presupposed picture, called a paradigm (Kuhn , 1962). Membership of the community is defined by loyalty and the ability and eagerness to fit data to the paradigm. Accordingly, data are so manifold, chaotic and ambiguous that if no paradigm were available and dominant, disagreements would be endemic. The possibility of science depends on order, not liberty, and it is only the order arbitrarily introduced by the paradigm which limits the possibility of endless interpretative alternatives and thereby makes orderly inquiry possible. By Kuhn's account, reality can only be viewed through paradigms and as such, no sense can be attached to declaring one paradigm better than another as paradigms are incommensurable.

Feyerabend (1975) contended that science has no special claim to be listened to, and no grounds for being regarded as authoritative. He argued that *anything goes* in the sense that there are no good reasons for preferring one account of the world to another, no rational procedures for deciding between rival claims to the truth whatever their source, and however they have been produced. "All methodologies have their limitations and the only rule that survives is anything goes" (Feyerabend, 1975:296). Kuhn dismissed this claim, arguing that science has a special status, that it is the best source we have of reliable knowledge, that there are good reasons for preferring the *scientific way* of putting and testing knowledge claims. Kuhn borrowed Popper's (1959) assertion that scientific knowledge is distinguished not by the security of its foundations, but by the rationality of the processes or procedures by which it is built up and knocked down, but they differed in the accounts they gave of these processes or procedures.

It is incumbent upon the novice researcher to be familiar with claims to discovering or expanding knowledge in order to locate oneself within some of these claims and to conform to the traditions thereto. Research protocol requires that philosophical traditions or positions guiding the research process be pronounced, and the reasons for preferring particular approaches over others be presented. In a sense, researchers are conformists who follow certain rules prescribed by the research community and its cohorts in the academic field. However, there are good reasons for budding researchers to familiarise themselves with philosophical issues, for it helps to clarify the research design, to recognise which designs will work and which will not, and to adapt research designs according to the constraints of different subject or knowledge structures (Easterby-Smith *et al.*, 1994). This enables the researcher to avoid going up too many blind alleys and to indicate the limitations of particular approaches.

One undertakes research to find out what was not previously known about or to shed light on, an issue or problem. This entails an attempt to gain reliable knowledge or the 'truth' concerning the problem. To do this academically requires a systematic way of approaching the problem, which means falling back on conventional methods provided by the research community. Arising from Kuhn's work are ways or methods - in the broad sense - of approaching a research problem designated as the *dominant* and the *alternate* paradigms, from which follow the *positivist* and *phenomenological* positions (Maykut and Morehouse, 1994), leading to the respective

quantitative and qualitative approaches. Philosophical assumptions guide specific ways of approaching the problem at hand, and defining the methodology and subsequent methods and techniques of carrying out the research.

The rationale for philosophical underpinnings is to direct research work towards appropriate approaches to gaining new *knowledge* and the *'truth'* on an issue of interest. Below we explain our understanding of the concepts of *'knowledge'* and *'truth'* and their relevance in doing research work.

2. The quest to gain new knowledge and the 'truth' through research

Pursuing knowledge, or attempting to understand some phenomenon in education requires an understanding of what 'knowledge' is and the types of knowledge that one is likely to utilise or gain in a research project. A sharp distinction has been drawn between *a priori* and *a posteriori* knowledge, which refer primarily to how, or on what basis, a proposition might be known. In general terms, a proposition is knowable *a priori* if it is knowable independently of experience; while a proposition knowable *a posteriori* is knowable on the basis of experience. The distinction between *a priori* and *a posteriori* knowledge thus broadly corresponds to the distinction between empirical and non-empirical knowledge

In calling knowledge *a priori*, philosophers are pointing out that one does not have to engage in a factual or empirical inquiry in order to determine whether something is true or not, but can know this merely on the basis of reflection and thus prior to or before any investigation of the facts. In contrast, in *a posteriori* knowledge something can be determined to be true only after some kind of empirical investigation leading to a judgment. The knowledge thus acquired is *a posteriori* or knowledge after the fact. Other sets of dichotomies related to the one just developed and in terms of which the two propositions can also be differentiated are: necessary *versus* contingent, analytic *versus* synthetic, tautological *versus* significant, and logical *versus* factual. Carr (1998:19), says of these distinctions:

> Theories of truth and of justification remain loci of intense debate, as do controversies concerning internalism *versus* externalism, naturalism *versus* non-naturalism, a priori *versus* a posteriori epistemological methodology, scepticism, and many others.

The Latin philosophical phrases *a priori* (from what is before) and *a posteriori* (from what is after) were originally used to distinguish between arguments from causes and arguments from effects. "We can distinguish between two sorts of knowledge – propositional knowledge, or knowledge that, and procedural knowledge, or knowledge how… For better or for worse, epistemological theorising in the analytic tradition has centred on propositional knowledge" (Carr, 1998:20). This implies that, knowledge involves a claim or assertion by the knower that something is the case and, this something must indeed be the case. The would-be knower must have some ground or reason, meeting some appropriate standard, for thinking it to be the case – her/his claim must not be mere whim or guesswork.

Maykut and Morehouse (1994:31) considered two types of knowledge through which people understand the world, namely *tacit* and *explicit* knowledge. They explain that:

> Tacit knowledge is unarticulated knowledge; it is unformulated, such as the type of knowledge we have in the act of doing something. Explicit knowledge is that which is or can be written down in words, maps, or mathematical formulas. The major logical difference … is that explicit knowledge can be subject to critical reflection, while tacit knowledge cannot be reflected on.

Maykut and Morehouse (1994:31-32) further argue that tacit knowledge is gained by indwelling in which people "pay attention to the subsidiary… attend away from the object and toward the meaning of the object… By attending away from or perhaps through the pieces to the meaning of the pieces is the way we understand the whole". This means that one gains an understanding of persons by dwelling in the external workings of their minds from outside – by attending to their behaviour. What one is looking for in a qualitative research, for instance, cannot be seen directly but rather appears in the shadows (Maykut and Morehouse, 1994:33):

> The patterns which will explain the phenomena under investigation emerge from the data as shapes begin to form in the background… the person or the event can only be understood within the context or background. The person that emerges out of the context is not a universal person or event but rather a contextual person or event… Through this process of looking at the background, patterns begin to take shape… these things become focal. This focal knowledge can be further intensified through articulation.

Accordingly, the field notes and other data that the researcher collects have their value in part because they are the means by which the inquirer makes the implicit (the subsidiary) explicit (articulate). "Articulated information increases our ability to understand what we observe and also aids our ability to use our tacit knowledge" (Maykut and Morehouse, 1994:33).

A discipline such as mathematics education is not the sum total of *truths* that can be said about something, nor of all that may be accepted by virtue of some principle of coherence or systematisation. It is what can be said as constrained by certain assumptions, that is, within a certain theoretical field. A proposition must fulfil some

complex conditions before it can be admitted to a discipline: it must be within what are recognised as the delimits of the area of knowledge. It is possible to speak the 'truth' in a void, but one can only speak 'in the true' through the rules of a discursive policy. Disciplines constitute a system of control in the production of discourse, fixing its limits through the action of an identity taking the form of a permanent reactivation of the rules. It is likely impossible to see the enabling role of these forms of constraint without first seeing them as forms of constraint.

Philosophical issues continually provide the fundamental questions asked by the social sciences about the nature of their appropriate subject matters, their intellectual provenance, their investigative rationales, and above all, about the nature of their valid and proper methods. 'The philosophy of education' has increasingly come to mean the application of techniques of modern analytical philosophy to educational issues and problems. Arising from the philosophical assumptions are questions of how one will know what one wants to investigate and how one will know that what the respondents tell her/him is genuine or the *'truth'*. These are philosophical questions, which can be addressed by discussing the sub-disciplines of the philosophy of education, namely *epistemology, ontology* and *logic* which are discussed together with their relevance in research studies next.

3. Deciphering epistemology

Epistemology is the scientific study of what all other sciences presuppose without examining it: cognition itself. It is thus a philosophical science, fundamental to all other sciences. Only through epistemology can we learn the value and significance of all insight gained through the other sciences - it provides the foundation for all scientific effort. *Epistemology* is about how it is possible for us to gain knowledge of the world (Hughes and Sharrock, 1997:5):

> Epistemology is, to put it briefly, concerned with evaluating claims about the way in which the world can be known to us and as such, involves issues as to what it is to know anything.

This branch of philosophy is concerned primarily with the theory of knowledge and justified beliefs. It has obvious relevance for education since the process of education involves, to an important extent, the development of knowledge and understanding. Epistemological questions relate to relationships between the *knower* and the *known* and to the role of *values* in understanding (Maykut and Morehouse, 1994). The way we understand the nature of reality directly affects the way we see ourselves in relation to knowledge. The positivist position advocates for true objectivity which alienates researcher and researched by articulating value-freedom in the research process. In phenomenology, the knower and the known are interdependent - values are embedded in the research, in the topic chosen for investigation, in the way the researcher examines the topic, and in the researcher her/himself.

We view knowledge as emerging from the experiences of actors through their narratives, their stories and from the interpretations one attaches to the experiences. The philosophy of epistemology assumes that the difference between a belief, which makes a genuine claim to knowledge, and one which is a mere statement of opinion is that the former can somehow be justified. The problem with epistemology is that it is particularly troubled by the need to find answers to persistent scepticism. It is directed towards attempting to ascertain whether there are truths, which can be secured against all possible doubt. Or whether it is unavoidable to concede to the sceptic that, in the end, we can never be truly certain of anything and that even our own most cherished certainties are only a matter of misplaced confidence (Hughes and Sharrock, 1997).

4. Ontology: What exists in the world?

Related to epistemology is the equally momentous question concerning what kinds of things exist in the world and what it is for anything to exist at all? Philosophically, the question about reality affects the way we do research as well as other less rigorous forms of inquiry. The way we understand the nature of reality directly affects the way we see ourselves in relation to knowledge (Maykut and Morehouse, 1994:11):

> If knowledge can be separated into parts and examined individually, it follows that, the knower or the researcher can stand apart from who or what s/he is examining. Alternatively, if knowledge is constructed, then the knower cannot be totally separated from what is known – the world is constituted.

Researchers within the dominant and the alternate paradigms ask different questions and approach research in different ways. Objectivity sees one reality which can be understood by carefully dividing and studying its parts, while phenomenology allows for a multiple of realities, which are socio–psychological constructs forming an interconnected whole (Maykut and Morehouse, 1994).

5. Logic as it relates to research

In simple terms, logic is the science of reasoning and proof, which deal with demonstration and verification of phenomena. Maykut and Morehouse (1994:11-12) assert that:

If reality is multiple and constructed, it follows that the causal links will be mutual (i.e. constructed) and that in terms of what an event of action means, the event is not unidirectional but multidirectional. This perspective also has implications for how one looks at data or information which is gathered in the process of research. The qualitative researcher seeks patterns which come out of or emerge from the data. The quantitative researcher makes a guess or forms a hypothesis which is then used to test the data.

In relation to studies which seek reality by constructing stories from informants' experiences, causes are not a prime focus. In that sense, logic is seen as emerging from multidirectional events that shape each other as relationships are discovered within situations.

These philosophical terms relating to the production of knowledge are theoretical abstractions not easy to comprehend. Theoretical abstractions and the practical realities of research are so interrelated that each has to be understood alongside, and in connection with, the other (Griffiths, 1998:31). Moreover, understanding the relationship between philosophy and social sciences may at times have the capacity to illuminate, and the philosophical perspectives may enable us to understand our actions, assumptions and consequences (Maykut and Morehouse, 1994:1-2). De facto, social research is not only technical, but also moral, epistemological and ontological (Williams and May, 1996:136).

A philosophical perspective, in this sense, has a positive impact on social research in that it enables us to conduct research in a more reflective manner. We believe that a research framework built on an understanding of the philosophy underpinning social research is a fruitful and productive one for the novice researcher. The next section explores the philosophical assumptions underpinning research studies.

6. The need for philosophical assumptions

Having discussed the philosophical underpinnings and the ways of seeking knowledge in undertaking research work, this section looks into the importance of philosophical assumptions. Maykut and Morehouse (1994:1) declared that:

> An understanding of the philosophical assumptions is important as one begins a research project because questions will come up that were not, perhaps could not be, anticipated. These unanticipated questions demand answers, often immediate answers. If a problem occurs while one is gathering data, there is no time to go back and check notes or to review a research article. Our first inclination when facing a new problem is to fall back on what we know best, and what we know best about research are the modes presented by traditional science.

In the broadest of terms, there is a dichotomy of philosophical positions underpinning the possibility to draw comprehensive lists of assumptions and to associate methodological implications with a piece of research. Researchers tend to align themselves with (or be sympathetic to) either of these positions, namely *positivism* or objectivity (*empiricist view*) and *phenomenology* or subjectivity (*anthropologist view*). Consequently, researchers elect to use either *quantitative* or *qualitative* methods accordingly. This preference depends on the questions posed by the problem and on personal beliefs or interests of the researcher. Next, we discuss these approaches indicating their appropriateness in carrying out research work.

7. Positivism and quantitative methods

To put this approach in perspective, Kuhn (1962) first introduced the concept of paradigms into the history and sociology of science in his '*The Structure of Science Revolutions*' by referring to two phases or periods of research as *normal* and *revolutionary*. He saw science as progressing in tiny steps which refine and extend what is already known, but occasionally experiments start to produce results that do not fit into existing theories and patterns. There comes a time when the paradigm faces ever increasing and multiplying difficulties which in the end overwhelm it. He calls this a *revolution* (or *paradigm shift*) which is terminated by the imposition of a new paradigm. Accordingly, the *normal* paradigm became the *dominant* or *traditional* methods (positivist position) and the *new* paradigm became the *alternate* paradigm (phenomenologist position) (Maykut and Morehouse, 1994).

The central claim of the dominant paradigm and the positivist position is that there are no epistemological or methodological distinctions between the natural and social sciences – human knowledge is all of the same kind, natural knowledge and social knowledge are identical in form, and validated against the same standards of truth (Hughes and Sharrock, 1997). Positivists postulate that the social world exists externally and that its properties should be measured through objective methods rather than being inferred subjectively through sensation, reflection or intuition (Easterby-Smith *et al*., 1994). Empiricists maintain that perception/observation gives us access to 'brute facts' (raw data) which have not yet been forced into one shape or another by the concepts we employ in our thinking or theorising, and so can provide a completely independent check on its validity (Hollis, 1994).

A highly quantitative research design conforms closely to the positivist position and should be considered in

conjunction with the associated quantitative methods. A summary of our understanding of 'quantitative' is that it refers to any approach to data collection counted or measured in some form or another. Quantitative research is concerned with the acquisition and interpretation of data which can be presented in the form of discrete units that can be compared with other units by using statistical techniques (Maykut and Morehouse, 1994).

The main strengths of positivism and quantitative methods are in the provision of wide coverage of the range of situations, they can be fast and economical, and (particularly when statistics are aggregated from large samples) they may be of considerable relevance to policy decisions. In the natural sciences it is often, though not always, possible to repeat the situation, without prejudicing the outcome. However, quantitative methods tend to be rather inflexible and artificial. They are not very effective in understanding processes or the significance that people attach to actions; and are not very helpful in generating theories. Moreover, because they focus on what is, or what has been recently, they make it hard for the policy-maker to infer what changes and actions should take place in future. Quantitative methods, therefore, may only provide illusions of the true impact of social policy (Legge, 1984). This takes us to the alternate approach which we consider next.

8. Phenomenology and qualitative methods

The alternate paradigm and the phenomenological position, which, following Kuhn's revolution, is a reaction to the application of positivism to the social sciences and stems from the view that the world and reality are not objective and exterior, but are socially constructed and given meaning by people. Variants of this approach include social constructionism (Berger and Luckman, 1966), '*new paradigm'* inquiry (Reason and Rowan, 1981), qualitative methodology (Taylor and Bogdan, 1984), naturalism (Lincoln and Guba, 1986) and interpretivism (Habermas, 1970). Each takes a slightly different stance in the application of phenomenology and in the features of positivism that it finds distasteful (Easterby-Smith *et al.*, 1994).

The phenomenological approach is grounded on the idea that reality is socially constructed rather than objectively determined. The task of the social scientist is not to gather facts and measure how often certain patterns occur, but to appreciate the different constructions and meanings that people place upon their experiences. The investigator tries to understand and explain why people have different experiences, rather than search for external causes and fundamental laws to explain their behaviour. The constructs that people use in order to render the world meaningful and intelligible to them is the key focus of a phenomenologically grounded social science (Schultz, 1967).

Social constructionists have attacked positivism on its assumptions of value-freedom. Habermas (1970) argues that human interests not only *guide* the way we think, and the structures of work and authority, but they also *condition* the way we inquire into, and construct our knowledge of, the world. According to Dalton (1964), the classical *scientist method* (the sequence of hypothesis, observation, testing and confirmation or disconfirmation of hypothesis) is not appropriate for every piece of research. This method is rather idealistic in the sense that natural scientists do not usually follow it themselves, except in the school laboratory. Dalton opposed the tendency to quantify and to reduce variables to their smallest components, on the grounds that this loses most of the real meaning of the situation.

The strengths of the phenomenological approach and associated qualitative methods lie in their ability to look at change processes over time, to understand people's meanings, and to adjust to evolution of new theories. They also provide a way of gathering data, which is seen as *natural* rather than *artificial*. Educational institutions such as schools and classrooms can be considered *natural* settings for learners, as opposed to laboratory animals and plants, or other situations where subjects are not in their 'natural' habitats. The weakness of qualitative methods is that they can take up a great deal of time and resources, and the analysis and interpretation of data may be very difficult. Also, such studies feel very untidy because it is harder to control their pace, progress and end-points. They also face the problem that policy makers may give low credibility to studies based on a phenomenological approach.

Verma and Mallick (1999) assert that in the natural sciences, complex constructs are defined in operational terms whereas the social sciences have been limited by lack of adequate definitions. Many human characteristics (e.g. anxiety, hostility, motivation) are not directly observable and as constructs they can only be postulated and inferred on the basis of test scores. Furthermore, there is a poverty of tools or instruments for 'accurate' measurement in the social sciences which makes it more difficult to describe many of the constructs (Verma and Mallick, 1999). Also, the knowledge of being investigated makes individuals conscious that their behaviour is being observed and this can affect their response to the situation. Again, the researcher's interests, background, ability, prejudices, attitudes and values are likely to affect the research process and consequently its outcome.

Despite the incompatibility of the basic beliefs of the two positions as espoused by Guba and Lincoln (1982) and others, the differences in the actual research methods and techniques used by researchers are by no means so clear cut and distinct. Increasingly, researchers have developed methods and approaches, which provide a middle ground and some bridging between the two extreme viewpoints. In practice therefore, researchers may not hold

scrupulously to one or the other approach. Increasingly, authors and researchers argue that one should attempt to combine methods to some extent, because it provides more perspectives on the phenomena being investigated. Fielding and Fielding, (1986) advocate the use of both quantitative and qualitative methods where the overall direction and significance of the two sources are fairly similar. Howe (1988) argues from a pragmatic perspective, that no incompatibility exists either at the level of epistemology or practice between quantitative and qualitative methods. They are intricately intertwined, not only at the level of specific data sets, but also at the levels of study design and analysis. The works of Bryman (1988), Miles and Huberman (1994), and Newman and Benz (1998) emphasise this pragmatic view as increasingly important in social research.

The advocacy to use both methods has led to the birth of the mixed methods research which seeks to bring qualitative and quantitative approaches together. Most people are familiar with quantitative tests and surveys. These approaches are great for answering the 'what kinds' and 'how many' questions. When this type of information is integrated with the rich and complex data collected via qualitative methods—the 'how' and 'why' information—an entirely new set of questions can be answered. There have been debates as to whether these different types of data are incompatible, but, as stated by William Tronchim (a prominent Cornell University social scientist), *'...[any] kind of polarized debate has become less than productive. And, it obscures the fact that qualitative and quantitative data are intimately related to each other. All quantitative data is based on qualitative judgments; and all qualitative data can be described and manipulated numerically.'* As each type of data provides different representations of the world, their integration widens the range of perspectives that can be explored to finding useful answers to research questions.

9. Lessons from the Feminist Critique

Feminism is seen as a distinctive approach to inquiry, but more of a commitment to qualitative and a rejection of quantitative methods. According to Haw (1996:328-329):

> […] a framework constructed from poststructuralism and feminism moves us away from crude dichotomies constructed around notions of similarities and differences and opens up the way to explore critically the commonalities and differences inherent in any researcher/participant relationship… With regard to the development of a critical praxis… allows for the generation of a multiplicity of micro-political agendas and an exploration of the relationships of power inherent to the research process.

We note here the relationship between feminism and poststructuralism, borne out of their claims to the fragmentation of society and the need for a "fragmented understanding of individuals within it" (Haw, 1996:320). Some have argued that it is at the level of methodological and epistemological assumptions that the distinctiveness of a feminist approach to research is to be found (Cook and Fonow, 1986; Harding, 1987). An important task of feminism is to explore the experiences of women, which is treated as valid in its own terms. It is believed that women have uniquely valid insights, which forms what has come to be known as feminist standpoint epistemology (Harding, 1987; Stanley and Wise, 1990).

The experience of women is often treated as providing access to truths about the social world that are not available to men (Hammersley, 1992). It is believed that gender differences structure personal experience and belief, and that given male dominance in society generally; conventional social science is primarily an expression of the experience of men presented as if it were human experience (Westkott, 1979; Smith, 1987). Feminism, thus, set out to subject conventional social science to critical assessment for male bias. It also rejects hierarchy in research relationships, advocating that researcher and researched should be on an equal footing in the research process. For example, Oakley (1980) criticises prescriptions for interviewing that proscribe the researcher sharing personal experiences with interviewees or providing aid to them.

Some feminists, such as Harding (1987:12), seem to propagate feminism as the emancipation of women rather than the production of valid knowledge:

> Those who do not struggle against the exploitation of women in everyday life are unlikely to produce social science research about any subject at all that is undistorted by sexism and androcentrism.

The feminist critique of sociology involves a powerful criticism of sexism within the discipline, arguing that this developed from a male perspective of the world (Graham, 1984; Stanley, 1984). A major commitment of academic feminism has been to create a theory and method which centres on women's perspectives and experiences so that they can understand themselves and their social world (McRobbie, 1982; Finch, 1984). This theory articulates that female respondents are differentially positioned to relate, make friends and consequently give genuine responses to female researchers. It is based on the premise that women's subjective structural position and gender socialisation reduces social distance and facilitates talk between them. According to Klein (1983), this allows for women studying women in an interactive process without the artificial subject/object split between researcher and researched.

This feminist approach has been highlighted, acknowledged and criticised by among others, Stacey (1991:116) who asserts that:

> Feminism's keen sensitivity to structural inequalities in research and to the irreconcilability of Otherness applies primarily to its critique of research by men, particularly to research by men, but about women. The majority of feminist claims about feminist ethnographic and other forms of qualitative research, however, presume that such research occurs almost exclusively woman-to-woman. Thus, feminist researchers are apt to suffer the delusion of alliance more than the delusion of separateness, and to suffer it more than do most poststructuralist ethnographers.

Tensions have also been highlighted between feminism and critical anthropology. Strathern (1987) pointed out that Feminism and critical anthropology are mutually vulnerable on the ethical grounds they hold to be so important. Each has a potential for undermining the other because they rest upon incompatible constructions of the relationship between self and 'Other.' She further argued that feminism presumes an antagonistic relationship to the male Other, a presumption that grounds its acute sensitivity to power inequalities and has the power to undermine those anthropological pretensions of alliance and collaboration with the Other upon which new ethnographic strategies for multiple authorship reside. Anthropology in turn, from its cross-cultural vantage point, suggests the illusory nature of feminist pretensions of actual separation from men of their own culture.

This feminist claim of a female/male researcher dichotomy in studies on female respondents is subjective and has been challenged. Ramazanoglu (1989) pointed out that women are divided by other variables which can affect the research process. Whilst all women share important experiences as a consequence of their gender, it is not sufficient to override structural barriers of status, age, race and disability in unique forms of communication and understanding. There are statuses other than shared gender which prevent friendship developing, and it may be, as Measor (1985) argues, that the research relationship is not a friendship and nor ought it to be. Furthermore, Finch (1984) warns that an interview model may encourage friendship between women yet has the potential to exploit them in order to gain source material. These arguments help to dispel the fear of foreseeing men's role in research involving female subjects in relation to the respondents as less legitimate than if they were women.

One does not have to be a feminist to realise the injustices caused by patriarchal attitudes on women wherever they prevail. We consider ourselves as leaning towards socialism, but prefer to be seen as apolitical. We believe that research work has to be undertaken from a neutral position in order to fairly address issues of gender bias in the research process.

10. Conclusive summary: Towards an Appropriate Research Approach.

Having considered the philosophical positions and the respective approaches to research emerging from them, it is important to examine how they can be applied in response to the questions posed for a proposed investigation. The desire to investigate phenomena may arise from one's experiences, personal interests, allegiance to particular socio-political perspectives, and from literature related to the problem of interest.

In attempting to address identified problematic concerns, one elects to examine the suitability of either quantitative or qualitative methods to carry out the research work, that is, one has to decide on the quantification of the data or reliance on informants' experiential evidence.

The overriding factor is that the appropriateness of a research approach derives from the nature of the social phenomena to be explored (Morgan and Smircich, 1980). We advocate basing research, evaluation and policy analysis on habit rather than on situational responsiveness and attention to methodological appropriateness. Patton (1990) cautions researchers on routine ways of thinking and paradigmatic *blinders*, which constrain methodological flexibility. He advocates a paradigm of choices, which rejects methodological orthodoxy in favour of methodological appropriateness as the primary criterion for judging methodological quality.

We favour drawing data from informants' experiential and perceptual frameworks, constructing stories from the data and making interpretations thereof. Nisbet and Watt (1984) assert that sometimes it is only by taking a practical instance that we can obtain a full picture of this interaction. The meaningfulness of the data collected this way cannot be overemphasised since it comes from the interaction between people and events in their natural environments. According to Zyzanski and colleagues, compared with empirical research, qualitative methods typically produce rich complex data; they have the potential to describe phenomenon in all their complexity and ambiguity with appropriate consideration of context and attention to the meaning of events and experiences for participants (Zyzanski *et al*., 1992). While the survey method may provide quantifiable data to answer specific questions, it is not necessarily the best way of uncovering the range and depth of people's feelings and opinions. Exploration of the respondents' views places a value on their opinion, attitudes and beliefs, and recognises that their contribution to the problem at hand needs to be understood.

Dingwall (1997:52), who favours participant observation criticises the interview study as having become "an excuse for introspection, an occasion on which to contemplate the sociological navel and to find it pierced in contemporary fashion". According to Dingwall, the present wide use of interviews is due to the fact that the pressures on the resources available to graduate students and rising expectations about their training requirements have encouraged the '*cheap and quick'* use of interview methods, which have themselves found an

external constituency. Dingwall (1997:59) argues that "data produced by interviews are social constructs, created by the self-presentation of the respondent and whatever interactional cues have been given off by the interviewer about the acceptability or otherwise of the accounts being presented".

Notwithstanding the above critique, a researcher has in her/his frame of mind certain issues that s/he wants to investigate. Interactional cues are justified in helping to contain the amount and type of data the researcher deems important. There is so much data that an unguided interview can generate, much of which may in the end be of no use in addressing the question posed in a study. Data collection is a human action and interactional cues will remain a healthy exercise in the research process. Again the 'cheapness' and 'quickness' of interview methods is dependent on the scope, the time available, funding limitations and other factors outside the researcher's control. Also, overreliance on collecting quantifiable data misses the opportunity to experience how informants feel and express this personal feeling on encounters with phenomena, and misses the fine grain of human lives.

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