

به نام خداوند بخشنده مهربان



**Research  
Methodology  
in  
ELT**

**Hossein salarian**

آمادگی آزمون دکتری

سالاریان، حسین ۱۳۵۱

روش تحقیق (Research Methodology in ELT)

مشاوران صعود ماهان، ۱۴۰۱

۳۵۰ص، جدول، نمودار، (آمادگی آزمون دکتری)

ISBN:978-600-458- 637-5

شابک

فهرست‌نویسی بر اساس اطلاعات فیبا.

فارسی و لاتین - چاپ اول

۱- روش تحقیق (Research Methodology in ELT) ۲- آزمونها و تمرینها

۲- آزمون دوره‌های تحصیلات تکمیلی ۴- دانشگاه‌ها و مدارس عالی - ایران - آزمونها

حسین سالاریان

ج - عنوان:

شماره کتابشناسی ملی: ۵۷۴۲۱۷۵

انتشارات مشاوران صعود ماهان



- نام کتاب: روش تحقیق (Research Methodology in ELT)
- مدیران مسئول: مجید و هادی سیاری
- مولف: حسین سالاریان
- مسئول برنامه‌ریزی و تولید محتوا: سمیه بیگی
- ناشر: مشاوران صعود ماهان
- نوبت و تاریخ چاپ: چاپ اول / ۱۴۰۱
- تیراژ: ۱۰۰۰ نسخه
- قیمت: ۳/۷۹۰/۰۰۰ ریال
- شابک: ISBN ۹۷۸-۶۰۰-۴۵۸-۶۳۷-۵

انتشارات مشاوران صعود ماهان: تهران - خیابان ولیعصر، بالاتر از تقاطع ولیعصر مطهری، پلاک ۲۰۵۰

تلفن: ۸۸۱۰۰۱۱۳ و ۸۸۴۰۱۳۱۳

کلیه حقوق مادی و معنوی این اثر متعلق به موسسه آموزش عالی آزاد ماهان می‌باشد. و هرگونه اقتباس و کپی‌برداری از این اثر بدون اخذ مجوز پیگرد قانونی دارد.

---

مقدمه ناشر

---

به نام تو

ایمان داریم که هر تخییر و تمول بزرگی در مسیر زندگی بدون تمول معرفت و نگرش میسر نخواهد بود. پس بیایید با اندیشه توکل، تفکر، تلاش و تمول در توسعه دنیای فکریمان برای نیل به آرامش و آسایش توأمان اولین گام را برداریم.

چون همگی یقین داریم دانایی، توانایی می آورد.

**شاد باشید و دلی را شاد کنید.**

**برادران سیّاری**

## Preface

We all wonder, we all ask questions, and we all search for answers to our questions. The ways we search for answers, however, will differ. The way we search differentiates simple curiosity from research. Research is the *organized, systematic search* for answers to the questions we ask.

In many fields the first place to search for answers is to ask experts, colleagues, ourselves, and others. The "asking" may be quite informal or it may involve exceedingly complex questionnaire research. Such a research methodology is an excellent way to find answers to certain types of questions. And, of course, it is not a good way to search for answers to other kinds of questions.

As Hatch, & Lazaraton (1991) state research is a means of balancing confidence and anxiety. The balance grows out of the need to answer a question and the fear of giving or accepting inaccurate answers. Good social science, like all science, is based on good evidence. That is why research methods are important.

This book contains 22 chapters, all necessary for PhD Entrance Exam in Iran. Each chapter is the summary of chapters in related issues in some books with some tests at the end of it, key notes and a useful glossary. On the whole, it has more than 450 test items with keys and explanations, besides the test items in the recent PhD Entrance Exams. It should be mentioned more than 76% the test items on 'Research Methodology' and 100% of test items on 'testing' of the year 1393 in PhD Entrance Exam could be answered by using/reading my previous books for another institute. So, this institute invited me to write this new version of 'Research Methodology'. I hope it meets your needs and provides supports and is a bridge for the grade A, i.e., the full per cent, in PhD entrance exam. Remember that 'testing' and 'research methodology' are the main courses in this great competition which differentiate and discriminate you from others.

I have had the good fortune to be a little student of one of the great professors on 'testing and research methodology' in Iran and especially at University of Tehran, Dr. Alavi, so special thanks go to him for his constant encouragement, help, advice and efficiency to all of the students.

Hossein Salarian  
Instructor and PhD Candidate

University of Tehran  
Winter 2015

## **Contents**

<i>Chapter 1</i> .....	6
The nature of Inquiry	
<i>Chapter 2</i> .....	15
Qualitative Taxonomies	
<i>Chapter 3</i> .....	29
Quantitative (QUAN) and Qualitative (QUAL) Inquiry	
<i>Chapter 4</i> .....	45
Mixed Methods Research	
<i>Chapter 5</i> .....	51
Sampling	
<i>Chapter 6</i> .....	62
The Strategies of Inferential Statistics	
<i>Chapter 7</i> .....	81
Tools for Research	
<i>Chapter 8</i> .....	89
Writing a Research Proposal	
<i>Chapter 9</i> .....	95
Literature Review	
<i>Chapter 10</i> .....	101
Experiential Research	
<i>Chapter 11</i> .....	114
Experimental Design	
<i>Chapter 12</i> .....	131
Research Problem	
<i>Chapter 13</i> .....	143
Validity and Reliability	
<i>Chapter 14</i> .....	154
Ex Post Facto Research	
<i>Chapter 15</i> .....	165
Correlational Research	
<i>Chapter 16</i> .....	178
Survey Research	
<i>Chapter 17</i> .....	189
Action Research	
<i>Chapter 18</i> .....	199
Functions of Variables	
<i>Chapter 19</i> .....	213
Constructing Research Designs	
<i>Chapter 20</i> .....	221
Locating Scores and Finding <i>Scales in a Distribution</i>	
<i>Chapter 21</i> .....	229
Relationships in Nominal Data	
<i>Chapter 22</i> .....	239
The ethics of educational research:	
PhD Entrance Exams.....	244
Keys.....	256
Classified Tests.....	261
References.....	308
Glossary.....	309

# *Chapter 1*

*The nature of Inquiry*

This chapter explores the context of educational research. It sets out three significant lenses through which to examine the practice of research:

- (a) scientific and positivistic methodologies;
- (b) naturalistic and interpretive methodologies;
- (c) methodologies from critical theory.

Our analysis takes as a starting point an important notion from Hitchcock and Hughes (1995) who suggest that ontological assumptions give rise to epistemological assumptions; these, in turn, give rise to methodological considerations; and these, in turn, give rise to issues of instrumentation and data collection. This view moves us beyond regarding research methods as simply a technical exercise; it recognizes that research is concerned with understanding the world and that this is informed by how we view our world(s), what we take understanding to be, and what we see as the purposes of understanding.

### **The search for truth**

People have long been concerned to come to grips with their environment and to understand the nature of the phenomena it presents to their senses. The means by which they set out to achieve these ends may be classified into three broad categories: *experience*, *reasoning* and *research* (Mouly, 1978). Far from being independent and mutually exclusive, however, these categories must be seen as complementary and overlapping, features most readily in evidence where solutions to complex modern problems are sought. In our endeavours to come to terms with the problems of day-to-day living, we are heavily dependent upon experience and authority and their value in this context should not be underestimated. Nor should their respective roles be overlooked in the specialist sphere of research where they provide richly fertile sources of hypotheses and questions about the world, though, of course, it must be remembered that as tools for uncovering ultimate truth they have decided limitations. The limitations of personal experience in the form of common-sense knowing, for instance, can quickly be exposed when compared with features of the scientific approach to problem-solving. Consider, for example, the striking differences in the way in which theories are used. Laypeople base them on haphazard events and use them in a loose and uncritical manner. When they are required to test them, they do so in a selective fashion, often choosing only that evidence that is consistent with their hunches and ignoring that which is counter to them. Scientists, by contrast, construct their theories carefully and systematically. Whatever hypotheses they formulate have to be tested empirically so that their explanations have a firm basis in fact. And there is the concept of control distinguishing the layperson's and the scientist's attitude to experience. Laypeople generally make no attempt to control any extraneous sources of influence when trying to explain an occurrence.

Scientists, on the other hand, only too conscious of the multiplicity of causes for a given occurrence, resort to definite techniques and procedures to isolate and test the effect of one or more of the alleged causes. Finally, there is the difference of attitude to the relationships among phenomena. Laypeople's concerns with such relationships are loose, unsystematic and uncontrolled.

The chance occurrence of two events in close proximity is sufficient reason to predicate

a causal link between them. Scientists, however, display a much more serious professional concern with relationships and only as a result of rigorous experimentation will they postulate a relationship between two phenomena.

The second category by means of which people attempt to comprehend the world around them, namely, reasoning, consists of three types: *deductive reasoning*, *inductive reasoning*, and the *combined inductive—deductive* approach. Deductive reasoning is based on the syllogism which was Aristotle's great contribution to formal logic. In its simplest form the syllogism consists of a major premise based on an a priori or self-evident proposition, a minor premise providing a particular instance, and a conclusion.

Thus:

All planets orbit the sun;

The earth is a planet;

Therefore the earth orbits the sun.

and the more authorities one could quote, the stronger one's position became. Naturally, with such abuse of its principal tool, science became sterile.

The history of reasoning was to undergo a dramatic change in the 1600s when Francis Bacon began to lay increasing stress on the observational basis of science. Being critical of the model of deductive reasoning on the grounds that its major premises were often preconceived notions which inevitably bias the conclusions, he proposed in its place the method of inductive reasoning by means of which the study of a number of individual cases would lead to a hypothesis and eventually to a generalization. Mouly (1978) explains it like this: 'His basic premise was that if one collected enough data without any preconceived notion about their significance and orientation —thus maintaining complete objectivity—inherent relationships pertaining to the general case would emerge to be seen by the alert observer.' Bacon's major contribution to science was thus that he was able to rescue it from the death-grip of the deductive method whose abuse had brought scientific progress to a standstill. He thus directed the attention of scientists to nature for solutions to people's problems, demanding empirical evidence for verification. Logic and authority in themselves were no longer regarded as conclusive means of proof and instead became sources of hypotheses about the world and its phenomena.

Bacon's inductive method was eventually followed by the inductive-deductive approach which combines Aristotelian deduction with Baconian induction. In Mouly's words, this consisted of:

a back-and-forth movement in which the investigator first operates inductively from observations to hypotheses, and then deductively from these hypotheses to their implications, in order to check their validity from the standpoint of compatibility with accepted knowledge. After revision, where necessary, these hypotheses are submitted to further test through the collection of data specifically designed to test their validity at the empirical level.

This dual approach is the essence of the modern scientific method and marks the last stage of man's progress toward empirical science, a path that took him through folklore and mysticism, dogma and tradition, casual observation, and finally to systematic observation. (Mouly, 1978) Although both deduction and induction have their weaknesses, their contributions to the development of science are enormous and fall into three categories:





- (1) the suggestion of hypotheses;
- (2) the logical development of these hypotheses; and
- (3) the clarification and interpretation of scientific findings and their synthesis into a conceptual framework.

*The third means* by which we set out to discover truth is *research*. This has been defined by Kerlinger (1970) as the systematic, controlled, empirical and critical investigation of hypothetical propositions about the presumed relations among natural phenomena. Research has three characteristics in particular which distinguish it from the first means of problem-solving identified earlier, namely, experience. First, whereas experience deals with events occurring in a haphazard manner, research is systematic and controlled, basing its operations on the inductive- deductive model outlined above. Second, research is empirical. The scientist turns to experience for validation. As Kerlinger puts it, 'subjective belief...must be checked against objective reality. Scientists must always subject their notions to the court of empirical inquiry and test'. And, third, research is self-correcting.

Not only does the scientific method have built-in mechanisms to protect scientists from error as far as is humanly possible, but also their procedures and results are open to public scrutiny by fellow professionals. As Mouly says, 'This self- corrective function is the most important single aspect of science, guaranteeing that incorrect results will in time be found to be incorrect and duly revised or discarded.' Research is a combination of both experience and reasoning and must be regarded as the most successful approach to the discovery of truth particularly as far as the natural sciences are concerned (Borg, 1963).

Educational research has at the same time absorbed two competing views of the social sciences — the established, traditional view and a more recent interpretive view. The former holds that the social sciences are essentially the same as the natural sciences and are therefore concerned with discovering natural and universal laws regulating and determining individual and social behaviour; the latter view, however, while sharing the rigour of the natural sciences and the same concern of traditional social science to describe and explain human behaviour, emphasizes how people differ from inanimate natural phenomena and, indeed, from each other. These contending views—and also their corresponding reflections in educational research—stem in the first instance from different conceptions of social reality and of individual and social behavior.

### **Two conceptions of social reality**

The two views of social science that we have just identified represent strikingly different ways of looking at social reality and are constructed on correspondingly different ways of interpreting it. We can perhaps most profitably approach these two conceptions of the social world by examining the explicit and implicit assumptions underpinning them. Our analysis is based on the work of Burrell and Morgan (1979) who identified four sets of such assumptions.

First, there are assumptions of an ontological kind—assumptions which concern the very nature or essence of the social phenomena being investigated. Thus, the authors ask, is social reality external to individuals—imposing itself on their consciousness from without—or is it

the product of individual consciousness? Is reality of an objective nature, or the result of individual cognition? Is it a given 'out there' in the world, or is it created by one's own mind? These questions spring directly from what is known in philosophy as the nominalist-realist debate. The former view holds that objects of thought are merely words and that there is no independently accessible thing constituting the meaning of a word. The realist position, however, contends that objects have an independent existence and are not dependent for it on the knower.

The second set of assumptions identified by Burrell and Morgan are of an epistemological kind. These concern the very bases of knowledge— its nature and forms, how it can be acquired, and how communicated to other human beings. The authors ask whether 'it is possible to identify and communicate the nature of knowledge as being hard, real and capable of being transmitted in tangible form, or whether knowledge is of a softer, more subjective, spiritual or even transcendental kind, based on experience and insight of a unique and essentially personal nature. The epistemological assumptions in these instances determine extreme positions on the issues of whether knowledge is something which can be acquired on the one hand, or is something which has to be personally experienced on the other' (Burrell and Morgan, 1979). How one aligns oneself in this particular debate profoundly affects how one will go about uncovering knowledge of social behaviour. The view that knowledge is hard, objective and tangible will demand of researchers an observer role, together with an allegiance to the methods of natural science; to see knowledge as personal, subjective and unique, however, imposes on researchers an involvement with their subjects and a rejection of the ways of the natural scientist. To subscribe to the former is to be positivist; to the latter, anti-positivist.

The third set of assumptions concern human nature and, in particular, the relationship between human beings and their environment. Since the human being is both its subject and object of study, the consequences for social science of assumptions of this kind are indeed far-reaching. Two images of human beings emerge from such assumptions—the one portrays them as responding mechanically to their environment; the other, as initiators of their own actions. Comte's position was to lead to a general doctrine of positivism which held that all genuine knowledge is based on sense experience and can only be advanced by means of observation and experiment. Following in the empiricist tradition, it limited inquiry and belief to what can be firmly established and in thus abandoning metaphysical and speculative attempts to gain knowledge by reason alone, the movement developed what has been described as a 'tough-minded orientation to facts and natural phenomena' (Beck, 1979).

Since Comte, the term positivism has been used in such different ways by philosophers and social scientists that it is difficult to assign it a precise and consistent meaning. Moreover, the term has also been applied to the doctrine of a school of philosophy known as 'logical positivism'.

The central belief of the logical positivists is that the meaning of a statement is, or is given by, the method of its verification. It follows from this that unverifiable statements are held to be meaningless, the utterances of traditional metaphysics and theology being included in this class. However the term positivism is used by philosophers and social scientists, a residual meaning is always present and this derives from an acceptance of natural science as the



paradigm of human knowledge (Duncan, 1968). This includes the following connected suppositions which have been identified by Giddens (1975).

First, the methodological procedures of natural science may be directly applied to the social sciences. Positivism here implies a particular stance concerning the social scientist as an observer of social reality. Second, the end-product of investigations by social scientists can be formulated in terms parallel to those of natural science. This means that their analyses must be expressed in laws or law-like generalizations of the same kind that have been established in relation to natural phenomena.

We begin with an examination of the tenets of scientific faith: the kinds of assumptions held by scientists, often implicitly, as they go about their daily work. First, there is the assumption of determinism. This means simply that events have causes, that events are determined by other circumstances; and science proceeds on the belief that these causal links can eventually be uncovered and understood, that the events are explicable in terms of their antecedents. Moreover, not only are events in the natural world determined by other circumstances, but there is regularity about the way they are determined: the universe does not behave capriciously. It is the ultimate aim of scientists to formulate laws to account for the happenings in the world around them, thus giving them a firm basis for prediction and control. The second assumption is that of *empiricism*. In practice, this means scientifically that the tenability of a theory or hypothesis depends on the nature of the empirical evidence for its support. Empirical here means that which is verifiable by observation; and evidence, data yielding proof or strong confirmation, in probability terms, of a theory or hypothesis in a research setting.

The third assumption underlying the work of the scientist is the principle of parsimony. The basic idea is that phenomena should be explained in the most economical way possible. The first historical statement of the principle was by William of Occam when he said that explanatory principles (entities) should not be needlessly multiplied. It may, of course, be interpreted in various ways: that it is preferable to account for a phenomenon by two concepts rather than three; that a simple theory is to be preferred to a complex one; or as Lloyd Morgan said as a guide to the study of animal behaviour: 'In no case may we interpret an action as the outcome of the exercise of a higher psychical faculty, if it can be interpreted as the outcome of the exercise of one which stands lower in the psychological scale.'

The final assumption, that of *generality*, played an important part in both the deductive and inductive methods of reasoning. Indeed, historically speaking, it was the problematic relationship between the concrete particular and the abstract general that was to result in two competing theories of knowledge—the rational and the empirical. Beginning with observations of the particular, scientists set out to generalize their findings to the world at large. This is so because they are concerned ultimately with explanation.

Of course, the concept of generality presents much less of a problem to natural scientists working chiefly with inanimate matter than to human scientists who, of necessity having to deal with samples of larger human populations, have to exercise great caution when generalizing their findings to the particular parent populations. Clearly there are several different types of theory, and each type of theory defines its own kinds of 'proof'. For example, Morrison (1995a) identifies *empirical theories*, '*grand*' theories and '*critical*'

*theory*. Empirical theories and critical theories are discussed below. 'Grand theory' is a metanarrative, defining an area of study, being speculative, clarifying conceptual structures and frameworks, and creatively enlarging the way we consider behaviour and organizations (Layder, 1994). It uses fundamental ontological and epistemological postulates which serve to define a field of inquiry (Hughes, 1976). Here empirical material tends to be used by way of illustration rather than 'proof'. This is the stuff of some sociological theories, for example Marxism, consensus theory and functionalism. Whilst sociologists may be excited by the totalizing and all encompassing nature of such theories, they have been subject to considerable undermining for half a century. For example, Merton (1949), Coser and Rosenberg (1969), Doll (1993) and Layder (1994) contend that whilst they might possess the attraction of large philosophical systems of considerable—Byzantine—architectonic splendour and logical consistency, nevertheless, they are scientifically sterile, irrelevant and out of touch with a postmodern world that is characterized by openness, fluidity, heterogeneity and fragmentation. The status of theory varies quite considerably according to the discipline or area of knowledge in question. Cuff and Payne (1979) say: A scientific approach necessarily involves standards and procedures for demonstrating the "empirical warrant" of its findings, showing the match or fit between its statements and what is happening or has happened in the world'.

### **Criticisms of positivism and the scientific method**

In spite of the scientific enterprise's proven success—especially in the field of natural science—its ontological and epistemological bases have been the focus of sustained and sometimes vehement criticism from some quarters.

*Another challenge* to the claims of positivism came from Søren Kierkegaard, the Danish philosopher, from whose work was to originate the movement that became known as Existentialism. Kierkegaard was concerned with individuals and their need to fulfil themselves to the highest level of development. This realization of a person's potential was for him the meaning of existence which he saw as 'concrete and individual, unique and irreducible, not amenable to conceptualization' (Beck, 1979). Characteristic features of the age in which we live democracy's trust in the crowd mentality, the ascendancy of reason, scientific and technological progress—all militate against the achievement of this end and contribute to the dehumanization of the individual. In his desire to free people from their illusions, the illusion Kierkegaard was most concerned about was that of objectivity.

Positivism's concern for control and, thereby, its appeal to the passivity of behaviourism and for instrumental reason is a serious danger to the more open-ended, creative, humanitarian aspects of social behaviour. Habermas (1972, 1974) and Horkheimer (1972) are arguing that scientism silences an important debate about values, informed opinion, moral judgements and beliefs. Scientific explanation seems to be the only means of explaining behaviour, and, for them, this seriously diminishes the very characteristics that make humans human. It makes for society without conscience. Positivism is unable to answer questions about many interesting or important areas of life (Habermas, 1972:300). Indeed this is an echo of Wittgenstein's (1974) famous comment that when all possible scientific questions have been addressed they have left untouched the main problems of life.



*Other criticisms* are commonly levelled at positivistic social science from within its own ranks. One is that it fails to take account of our unique ability to interpret our experiences and represent them to ourselves.

### **Critical theory and critical educational research**

Positivist and interpretive paradigms are essentially concerned with understanding phenomena through two different lenses. Positivism strives for objectivity, measurability, predictability, controllability, patterning, the construction of laws and rules of behaviour, and the ascription of causality; the interpretive paradigms strive to understand and interpret the world in terms of its actors. In the former, observed phenomena are important; in the latter, meanings and interpretations are paramount. Habermas (1984) describes this latter as a 'double hermeneutic', where people strive to interpret and operate in an already interpreted world. By way of contrast, an emerging approach to educational research is the paradigm of critical educational research. This regards the two previous paradigms as presenting incomplete accounts of social behaviour by their neglect of the political and ideological contexts of much educational research. Positivistic and interpretive paradigms are seen as preoccupied with technical and hermeneutic knowledge respectively (Gage, 1989). The paradigm of critical educational research is heavily influenced by the early work of Habermas and, to a lesser extent, his predecessors in the Frankfurt School, most notably Adorno, Marcuse, Horkheimer and Fromm. Here the expressed intention is deliberately political—the emancipation of individuals and groups in an egalitarian society.

Critical theory is explicitly prescriptive and normative, entailing a view of what behavior in a social democracy *should* entail (Fay, 1987; Morrison, 1995a). Its intention is not merely to give an account of society and behaviour but to realize a society that is based on equality and democracy for all its members. Its purpose is not merely to understand situations and phenomena but to change them. In particular it seeks to emancipate the disempowered, to redress inequality and to promote individual freedoms within a democratic society.

In this enterprise critical theory identifies the 'false' or 'fragmented' consciousness (Eagleton, 1991) that has brought an individual or social group to relative powerlessness or, indeed, power, and it questions the legitimacy of this. It holds up to the lights of legitimacy and equality issues of repression, voice, ideology, power, participation, representation, inclusion, and interests. It argues that much behaviour (including research behaviour) is the outcome of particular illegitimate, dominatory and repressive factors, illegitimate in the sense that they do not operate in the general interest—one person's or group's freedom and power is bought at the price of another's freedom and power. Hence critical theory seeks to uncover the *interests* at work in particular situations and to interrogate the legitimacy of those interests—identifying the extent to which they are legitimate in their service of equality and democracy. Its intention is transformative: to transform society and individuals to social democracy. In this respect the purpose of critical educational research is intensely practical—to bring about a more just, egalitarian society in which individual and collective freedoms are practised, and to eradicate the exercise and effects of illegitimate power. The pedigree of critical theory in Marxism, thus, is not difficult to discern. For critical theorists, researchers can no longer claim neutrality and ideological or political innocence.



Critical theory and critical educational research, then, have their substantive agenda—for example examining and interrogating: the relationships between school and society—how schools perpetuate or reduce inequality; the social construction of knowledge and curricula, who defines worthwhile knowledge, what ideological interests this serves, and how this reproduces inequality in society; how power is produced and reproduced through education; whose interests are served by education and how legitimate these are (e.g. the rich, white, middleclass males rather than poor, non-white, females).

The significance of critical theory for research is immense, for it suggests that much social research is comparatively trivial in that it accepts rather than questions given agendas for research. That this is compounded by the nature of funding for research underlines the political dimension of research sponsorship (Norris, 1990). Critical theorists would argue that the positivist and interpretive paradigms are essentially technicist, seeking to understand and render more efficient an existing situation, rather than to question or transform it.

### **Feminist research**

It is perhaps no mere coincidence that feminist research should surface as a serious issue at the same time as ideology-critical paradigms for research; they are closely connected. Usher (1996), although criticizing Habermas for his faith in family life as a haven from a heartless, exploitative world, nevertheless sets out several principles of feminist research that resonate with the ideology critique of the Frankfurt School:

- 1 The acknowledgement of the pervasive influence of gender as a category of analysis and organization.
- 2 The deconstruction of traditional commitments to truth, objectivity and neutrality.
- 3 The adoption of an approach to knowledge creation which recognizes that all theories are perspectival.
- 4 The utilization of a multiplicity of research methods.
- 5 The inter-disciplinary nature of feminist research.
- 6 Involvement of the researcher and the people being researched.
- 7 The deconstruction of the theory/practice relationship.

Her suggestions build on earlier recognition of the significance of addressing the ‘power issue’ in research (‘whose research’, ‘research for whom’, ‘research in whose interests’) and the need to address the emancipatory element of educational research—that research should be empowering to all participants. The paradigm of critical theory questioned the putative objective, neutral, value-free, positivist, ‘scientific’ paradigm for the splitting of theory and practice and for its reproduction of asymmetries of power (reproducing power differentials in the research community and for treating participants/ respondents instrumentally—as objects). Feminist research, too, challenges the legitimacy of research that does not empower oppressed and otherwise invisible groups—women.

Positivist research served a given set of power relations, typically empowering the white, male dominated research community at the expense of other groups whose voices were silenced.

# *Chapter 2*

## *Qualitative Taxonomies*

**(At least 2 items in the PhD Entrance Exam)**

*Types of Qualitative Research and  
characteristics*

*Tests*

Creswell (2007) describes five approaches of qualitative research: *narrative research, phenomenology, Grounded theory, ethnography, and case study*. The Denzin and Lincoln (2005) handbook of qualitative research discusses a variety of approaches, including *case study, ethnography, critical ethnography, performance ethnography, grounded theory, life history, narrative inquiry, participatory action research, clinical research, interpretive study, arts-based inquiry, auto-ethnography, and phenomenology*. Marshall and Rossman (2006) consolidate the various approaches into three major genres: (1) individual lived experience genres, which include phenomenological research (2) the genre of society and culture, which includes ethnography and its variants as well as action research; and (3) the language and communication genre, which encompasses all approaches that examine both spoken language and text-based language.

**Note:** Denzin and Lincoln (2008) present the qualitative researcher as a **bricoleur**, a maker of quilts. The bricoleur produces a **bricolage**, which can be thought of as a quilt or montage or a puzzle that connects the parts to make a whole.

### **Types of Qualitative Research and characteristics:**

#### **1) Basic qualitative/interpretive research**

- Has its roots in the social sciences
- Describes and interprets a phenomenon

#### **2) Case study research**

- Has multidisciplinary roots (business, law, medicine)
- Uses multiple data collection techniques

#### **3) Content analysis**

- Has its roots in communication studies
- Uses analysis of written or visual materials
- Can be quantitative and qualitative

#### **4) Ethnographic research**

- Has its roots in anthropology
- Studies the naturally occurring behavior of a group
- Focuses on culture and societal behavior

#### **5) Grounded theory research**

- Has its roots in sociology
- Its goal is to inductively build a theory about a practice
- Is “grounded” in the real world
- Is a cyclical process of building a tentative theory and testing it against the data
- Interviews and observation are the primary data collection tools

#### **6) Historical research**

- Has its roots in the study of history





- Focuses on the past
- Written documents and artifacts are the primary data sources

#### 7) Narrative research

- Has its roots in different humanities disciplines
- Focuses on stories about their lives told by individuals
- Stories may be spoken or written

#### 8) Phenomenological research

- Has its roots in philosophy
- Interprets the meaning of the participant's experience
- Interview is the primary data collection tool

### Basic qualitative studies

**Basic qualitative studies**, also called basic interpretative studies, provide **descriptive accounts** targeted to understanding a phenomenon. The central purpose of these studies is to understand the world or the **experience** of another. With roots in the social sciences, these basic studies may use a variety of techniques for collecting data. They describe and attempt to interpret experience.

### Case studies

Emerging from approaches in business, law, and medicine, a **case study** focuses on a single unit ( unit means a person, a group,...) to produce an in-depth description that is rich and holistic. The underlying question is "What are the characteristics of this particular entity, phenomenon, person, or setting?" The unit is defined within specific boundaries, referred to as a "**bounded system**." To be bounded, the phenomenon must be identifiable within a specific context.

### Difference between a case study with single-subject experiment

Both may study a single individual. However, single-subject experiments focus on a single behavior or a very limited number of behaviors, whereas case studies attempt to describe the subject's entire range of behaviors. The greatest advantage of a case study is the possibility of depth; it seeks to understand the whole case in the totality of the environment. Not only the present actions of an individual but also his or her past, environment, emotions, and thoughts can be probed.

Three types of case studies have been described. The **intrinsic case study** is conducted to understand a particular case that may be unusual, unique, or different in some way. In an **instrumental case study**, the researcher selects the case because it represents and is illustrative of some other issue under investigation. The **multiple** or **collective case study** uses several cases selected to further understand and investigate a phenomenon, population, or general condition.

**Note1:** *Intrinsic*: describing nature of the phenomenon, *instrumental*: facilitating our understanding, and *multiple/collective*: the least interest.

**Note 2:** Case studies are anchored in real life and can provide, with use of multiple techniques, rich detailed accounts of phenomena. The case study researcher starts with a particular concern or topic, and from that general area emerge **foreshadowed problems**. Two kinds of analysis appropriate for case studies: **holistic analysis** of the entire case and **embedded analysis** that focuses on specific aspects of the case. Researchers conducting case studies provide a detailed report provides both an **emic**, or insider, **perspective** (the perspective of the individuals who are part of the case) as well as an **etic**, or outsider, **perspective** (the interpretations of the researcher).

**Weaknesses of case studies:** Although it can have depth, it inevitably lacks breadth. The dynamics of one individual or one social unit may bear little relationship to the dynamics of others.

**Criticisms** of 'case study':

- Its external reliability: little evidence for generalizing.
- Its external validity: is not based on a representative sample

A case study protocol is used for increasing reliability.

### **Content or document analysis**

With roots in communication studies, content analysis focuses on the characteristics of materials and asks “What meaning is reflected in these?” **Content or document analysis** is a research method applied to written or visual materials.

The followings are some of the purposes of content analysis in educational research:

1. To identify bias, prejudice, or propaganda in textbooks.
2. To analyze types of errors in students’ writings.
3. To describe prevailing practices.
4. To discover the level of difficulty of material in textbooks or other publications.
5. To discover the relative importance of, or interest in, certain topics.

### **Steps involved in a content analysis:**

1. Specifying the phenomenon to be investigated
2. Selecting the media from which the observations are to be made
3. Formulating coding categories
4. Deciding on the sampling
5. Training the coders
6. Analyzing the data

**Disadvantage:** Content analysis can be slow and time-consuming.

**Advantage:** the advantage of content analysis is its **unobtrusiveness**. The presence of the observer does not influence what is being observed.

### **Ethnographic studies**

These studies, developed by anthropologist, deal with the cultural patterns with use of observation: using primarily **extended observation** (participant and nonparticipant) and



Group behavior is examined focusing on beliefs, attitudes, and values. **Ethnography** is the in-depth study of naturally occurring behavior within a culture or entire social group. It seeks to understand the relationship between culture and behavior, with culture referring to the shared beliefs, values, concepts, practices, and attitudes of a specific group of people. The final product is a **cultural portrait** that incorporates the views of participants (*emic* perspective) as well as views of researcher (*etic* perspective).

The term ethnography is used to refer to both the work of studying a culture and the end product of the research. Ethnographers refer to the people from whom they gather information as “**informants**” rather than participants, and they study “sites” rather than individuals. Ethnography is not defined by how data are collected, but rather by the lens through which the data are interpreted.

Creswell (2007) describes two approaches to ethnography. In **Realist ethnography**, a traditional one, the researcher provides an objective account of the situation, typically from a third-person point of view. The researcher’s interpretation occurs at the end. In **critical ethnography**, the researcher takes an **advocacy perspective** and has a value-laden orientation. The researcher is advocating for a marginalized group. Ethnographic research has advantages and disadvantages. The main advantage is its observation of behavior in a real-life setting. The main limitation is that the findings depend heavily on the particular researcher’s observations and interpretations of the data.

Spindler and Hammond (2000) describe some of the characteristics of good ethnography:

- (1) extended participant observation;
- (2) long time immersion at the site
- (3) collection of large volumes of material such as notes, artifacts, audio- and videotapes...
- (4) Openness, which means having no specific hypotheses.

Spradley (1980) identified the sequence of steps in ethnographic research:

1. *Selecting an ethnographic project.* The scope of these projects can vary greatly from studying a entire complex society to studying a single social situation...
2. *Asking ethnographic questions.*
3. *Collecting ethnographic data.*
4. *Making an ethnographic record.*
5. *Analyzing ethnographic data.*
6. *Writing the ethnography.* The ethnography should be written so that the culture or group is brought to life, making readers feel that they understand the people and their way of life.

### **There are many types of ethnographic research**

It includes Auto-ethnography (a self-examination within a cultural context), ethnographic casestudies (a case study within a cultural perspective), critical ethnography (a study of a marginalized group), feminist ethnography (the study of women and cultural practices), and postmodern ethnography (a study of particular challenges or problems of society. **More recently**: confessional ethnography, visual ethnography, and online ethnography.

**Note:** Richards (2003) maintains that there are 4 central components of observation in ethnographic research: *setting* (: place, object and so: roles, activities, functions/ distributions, territories ), *systems, people and behavior*.

### **Grounded theory studies**

**Grounded theory** has its roots in sociology. Its goal is to inductively build a theory about a practice or phenomenon using interviews and observation as the primary data collection tools. This emphasis on theory distinguishes it from other qualitative approaches. This research approach focuses on gathering data about peoples' experiences and then inductively building a theory "from the bottom up. The theory is grounded in the data and "conceptually dense"; that is, it presents many conceptual relationships.

**Note 1:** The study may include as many as subjects who are interviewed on the topic until no new information is forthcoming (**data saturation**). To confirm or refute the theory that has developed.

**Note 2:** In reviewing text materials, it is important to identify whether the text is **extant** (those the researcher did not shape, such as letters or diaries) or **elicited** (those in which the researcher involved participants in writing).

The cyclical process of testing the explanatory adequacy of the theoretical constructs by comparing with additional empirical data continues until the comparative analysis no longer contributes anything new (**theoretical saturation**). The **constant comparative method of analysis** is typically used in grounded theory: the researcher compares units of data with each other to generate tentative categories, eventually reducing these to conceptual categories that evolve into an overall framework or theory.

Strauss and Corbin (1998) present a **systematic approach** in which the constant comparative method is the primary analysis technique. **Open coding** is used to develop major or core categories with **axial coding** the purpose is to develop categories around the core. **Selective coding** is then used to develop propositions or hypotheses based on the model, showing how the categories are related. The resulting theory can take the form of a narrative statement, a picture, or a series of hypotheses.

**Note 3:** A key part of analysis is **memoing**, a process by which the researcher writes down his or her ideas about the evolving theory throughout the coding process. Memo writing is used as an intermediate step between coding and writing and is used to capture thoughts and perceived connections.

### **The process of grounded theory research**

The researcher begins **sensitizing concepts** (certain research interest and general concepts) that provide a place to start. Data are collected through observations and she warns of the potential impact of age, race, gender, and ideology on the interview process. During analysis, coding of special terms used by participants are called **in vivo codes**. These could be general terms that flag significant meanings, innovative terms, or words that reflect insider shorthand. These terms are characteristic of the social world being examined. The researcher begins to



examine the data early and begins **initial coding**. Preliminary analytic notes, called **initial memos**, are written about the codes and include comparisons and ideas.

### Coding and its purposes

#### Open coding

- It deals with labeling and categorizing phenomenon in the data.
- It uses the comparative method.
- Data are broken down by asking what, where, how, when, how much, etc.
- Similar incidents are grouped together and given the same conceptual label.
- Concepts are grouped together into categories.
- The purpose is to develop core concepts, categories, and properties.

#### Axial coding

- It is designed to put data back together that were broken apart in open coding.
- It develops connections between a category and its subcategories
- Its purpose is to develop main categories and subcategories.

#### Selective coding

- It shows the connections between the discrete categories.
- Categories that have been developed to build the theoretical framework are integrated.
- Its purpose is to bring the categories together into an overall theory.

The process of grounded theory in brief: data are gathered and analysis enters a **focused coding** phase. Initial codes are used to sort, and the researcher begins to synthesize and integrate theoretical ideas in an interactive process. **Advanced memos** are written that refine the conceptual categories and help to build and clarify the research. **Theoretical coding** follows focused coding as relationships among categories are posited. Certain categories are adopted as **theoretical concepts**. Further memos are written, and the sorting of memos and integrating of concepts lead to **diagramming**. A literature review is conducted after analysis in order to avoid seeing the world through extant ideas.

### Historical studies

Historical studies are oriented to the past rather than to the present and their emphasis is on interpretation and use of nonnumeric data. Based on the evidence gathered, conclusions are drawn regarding the past so as to increase knowledge of how and why past events occurred and the process by which the past became the present.

Control over treatment, measurement, and sampling is *limited*, and there is no opportunity for replication.

### Limitations

1) If newspapers ignore a particular segment of a community and no other sources for that community exist, then historians cannot directly assess the contributions that a particular segment of a population made to that community.

2) Another limitation is that no assumption about the past can be made merely because no record can be found.

### **Primary and Secondary sources**

The historian classifies materials as primary and secondary sources. **Primary sources** are original documents (correspondence, diaries, reports, etc.), relics, remains, or artifacts. With **secondary sources**, the mind of a non-observer comes between the event and the user of the record. If a newspaper reporter has been present at a school board meeting, the published report is a primary source. If the reporter relies on the minutes of the meeting or an interview with a participant to prepare the report, then the published report is a secondary source.

### **External and internal criticism**

Basically, **external criticism** (or lower) asks if the evidence under consideration is authentic. After the authenticity of a piece of evidence has been established, the historical investigator proceeds to **internal criticism** (or higher), which requires evaluating the worth of the evidence, for instance, whether a document provides a true report of an event.

### **Narrative research**

Narrative research has its roots in different humanities disciplines and focuses on stories (spoken or written) told by individuals about their lives. The researcher emphasizes sequence and chronology and a collaborative **re-storying** process. The key question is, “What is the story and its meaning as told through this person’s experience?” The researcher seeks to understand the **lived experience** of an individual or small group. A narrative can be any text or discourse.

Narrative analysis is categorized based on who was the author, whose perspective is presented, whether there is one or more narrative, the scope of the narrative (one or more episodes versus an entire life), and the conceptual framework of the researcher.

**Note1:** An autobiography is written by the individual. In a biographical study, the researcher writes and records the experiences of another.

**Note2:** Narrative analysis may be approached through a biographical lens, a psychological lens, or a linguistic lens.

**Note3:** Data in narrative research may come from primary sources (direct participant recollection) or secondary sources (documents written by the participant).

### **The basic steps in conducting narrative inquiry**

Step 1: Identifying a phenomenon that addresses a problem.

Step 2: Selecting an individual from whom you can learn about the phenomenon

Step 3: Collecting stories from the individual that reflect personal experience.

Step 4: Transcribing the stories

Step 5: Re-transcribing the stories.

Step 6: Analyzing the stories: Look for elements of time, place, plot, and scene.

Step 7: Building in past, present, and future; collect other field texts.





Step 8: Looking for themes.

Step 9: Retelling the story in chronological sequence

Step 10: Writing a coherent story in collaboration with the participant about the individual's personal and social experiences.

Step 11: Validating the accuracy of the story with the individual.

### Phenomenological research

Rooted in philosophy and psychology a **phenomenological study** is designed to describe and interpret an experience by determining the meaning of the experience as perceived by the people who have participated in it. The central research question aims to determine the essence of the experience as "perceived by the participants." Phenomenology moves from individual experience to a universal essence and always asks what is the nature or meaning of something. **Phenomenology** addresses questions about common human experience.

**Note 1:** Analysis is conducted by identifying significant statements or quotes (called **horizontalization**) and from those developing clusters of meaning and themes. A **textual description** is used to illuminate what was experienced, whereas the **structural description** illuminates the context that influenced the experience; a **composite description** is written that conveys the overall essence of the phenomenon. This also is called the essential or **invariant structure**.

The method in a phenomenological study is the personal, unstructured interview (the human instrument). The interviews may be lengthy (1 or 2 hours), and tape-recording the interviews facilitates the subsequent analysis.

**Note 2:** Husserl, the "father of phenomenology" used the word "**bracketing**", also referred to as **epoche**, which means suspension of belief and setting aside one's own experiences.

**Note 3:** the researcher derives an overall description of the general meaning of the experience from the collected data. This is done through a process called **reduction**.

### The difference between phenomenology and phenomenography

**Phenomenography** has its roots in a set of studies of learning among university students in the 1970s concerning why some students were better at learning than others. Phenomenology is rooted in a philosophical method and involves the understanding of the essence of the phenomenon.

### Other types of qualitative research

- 1) **Portraiture:** it seeks to join science and art in an attempt to describe complex human experiences within an organizational culture. The "portrait" is shaped by the dialogue between the researcher (portraiture) and the subject and attempts to reveal the "essence" of the subject and to tell the "central story." As Lawrence-Lightfoot and Davis (1997) explain, portraiture is a method framed by the traditions and values of the phenomenological paradigm. The goal of portraiture is to paint a vivid portrait or story that reflects meaning from the perspectives of both the participants and the researcher. Data can be collected using in-depth interviews and observations over a



period of time, which typically result in a personal relationship between the researcher and participants.

- 2) **Critical research:** It seeks to empower change through examining and critiquing assumptions. Questions focus on power relationships and the influence of race, class, and gender.
- 3) **Feminist research** and **participatory research** are sometimes classified as critical research.

**Semiotics** and **discourse analysis** study linguistic units to examine the relationship between words and their meanings. Signs( words) and their structural relationships are the subject of study for semiotics.

*Exercise. Check your understanding.*

**For each description of a study below, determine which type of qualitative research is represented.**

1. A study of in-church and televised worship sought to understand the perspectives of worshippers and to interpret how they describe the experience or worship through firsthand descriptions captured through interview processes.
2. A study to investigate identity development of minority teachers during the first 3 years of their teaching career.
3. A study of how a particular school assimilated immigrant children and transmitted values, beliefs, and customs of American society to them
4. A study to understand the experience of good supervision from the supervisees' perspective to determine what central factors need to be present for good supervision experiences to occur
5. A study to understand the communities created and sustained in cyberspace
6. A study of a nursing student who changed her major to elementary education and how memories of childhood experiences framed her adult schooling
7. A study to examine the effect of an impoverished, rural environment on the creativity of a gifted black child
8. A study of the extent to which discursive and non-discursive elements of character education curricula reflected attention to multicultural aspects
9. A study of the lives (from their earliest memories) of inner-city African American and Latino American young men previously involved in destructive behavior (i.e., illegal drug marketing) who had made positive behavioral changes in order to examine personal and environmental transitions that contributed to the change.
10. A study about student perceptions of the influence of race on professor credibility through nonparticipant observation, interviews, and questionnaires.

#### Answers:

- |                    |                     |
|--------------------|---------------------|
| 1. Phenomenology   | 6. Narrative study  |
| 2. Grounded theory | 7. Case study       |
| 3. Case study      | 8. Content analysis |
| 4. Phenomenology   | 9. Basic            |
| 5. Ethnography     | 10. Basic           |





### *Some Key Notes:*

1. **Positivism**, a philosophic view formulated in Europe in the 19th century. Positivists believe that general principles or laws govern the social world as they do the physical world and that through objective procedures researchers can discover these principles and apply them to understand human behavior. The positivists, such as Francis Bacon, stressed observation as the primary source of dependable knowledge. Positivism is often considered the traditional scientific method, which involves hypothesis testing and objective data gathering to arrive at findings that are systematic, generalizable, and open to replication by other investigators.

2. A case study is a type of ethnographic research study that focuses on a single unit, such as one individual, one group, one organization, or one program.

3. A constitutive definition is a formal definition in which a term is defined by using other terms. It is the dictionary type of definition.

An operational definition ascribes meaning to a construct by specifying operations that researchers must perform to measure.

4. '**diary studies**' are records of the events of people's everyday lives and usually refer to data obtained from 'solicited diaries' only. They offer the opportunity to investigate social, psychological and physiological processes within everyday situations. They classified into 3 types based on the time they are made: interval, signal and event-contingent designs.

Bailey (1991): diary studies are first-person case studies and sometimes a third person analyses the diaries.

**Note:** its Weaknesses:

- a. are very demanding on the part of informant due to requiring a detailed training session .
- b. Informants need to be literate and comfortable at writing.
- c. Are vulnerable to honest forgetfulness
- d. Variation in the length and depth.

5. In retrospective studies, teachers and learners reflect on their thinking processes or their beliefs and experiences.

Its 2 types: verbal reports and diary studies.

**Tests:**

1. A(n) ..... is a type of ethnographic research study.  
a. content analysis      b. ethnography      c. case study      d. narrative inquiry
  2. Which of the followings focuses on analyzing and interpreting recorded material to learn about human behavior?  
a. basic interpretative study      b. case study  
c. content analysis      d. ethnography
  3. Which of the followings is an in-depth study of naturally occurring behavior within a culture or social group?  
a. content analysis      b. ethnography      c. case study      d. narrative inquiry
  4. Which of the followings is Not the Criticisms of 'verbal reports'?  
a. highly unstructured and obtrusive  
b. not eliciting all of cognitive processes  
c. may not be valid  
d. asking learners to verbalize their thought processes while involving in processing language
  5. The criticism(s) of 'case study' can be .....  
a. its external reliability      b. its external validity  
c. both 'a' and 'b'      d. its internal validity
  6. 'Triangulation' is one of key concepts of ..... methodology.  
a. content analysis      b. ethnography      c. case study      d. narrative inquiry
  7. According to Richards (2003), which of the followings is Not of central components of observation in ethnographic research?  
a. setting      b. systems      c. behavior      d. power
- What research methodology do you believe would be the most appropriate for investigating each of the following research questions (8-9)?
8. What is the relationship between teachers' undergraduate background (education versus liberal arts) and certain measures of competence in the classroom?  
a. historical      b. narrative      c. experimental      d. phenomenological
  9. How did educational reforms of the junior high school lead to development of the middle school?  
a. historical      b. narrative      c. ethnography      d. case study
  10. .... Study involves 'mapping the terrain' in its ..... phase.  
a. Ethnographic –first      b. Ethnographic –second  
c. Case- first      d. Survey - second
  11. All of the followings are from the types of case study EXCEPT .....  
a. intrinsic      b. extrinsic      c. instrumental      d. multiple



## Keys:

### 1.c

**Note:** A case study is a type of ethnographic research study that focuses on a single unit, such as one individual, one group, one organization, or one program.

### 2. c

Content analysis focuses on analyzing and interpreting recorded material to learn about human behavior.

### 3. b

Ethnography is an in-depth study of naturally occurring behavior within a culture or social group.

### 4.d

**Note:** Criticisms of 'verbal reports':

- Highly unstructured and obtrusive to verbalize one's thought
- Kasper: don't elicit all of cognitive processes involved in an activity; incomplete
- Its analysis is subject to idiosyncratic interpretation of researcher; may not be valid.

'd' is called a *think-aloud*, one of its types.

### 5.c

**Note:** Criticisms of 'case study':

- Its external reliability: little evidence for generalizing.
- Its external validity: is not based on a representative sample

A case study protocol is used for increasing reliability.

### 6.b

It involves multiple methods/ data sources for verifying researchers' interpretations.

### 7. d

Richards (2003) maintains that there are 4 central components of observation in ethnographic research: setting (: pace, object and so: roles, activities, functions/ distributions, territories ), systems, people and behavior.

### 8. c

### 9. a

'ethnographic study' is emergent and involves 'participant observation' in a natural setting.

### 10. a

'ethnographic study' involves it, deciding who is who in its first phase.

### 11. b

There are 3 kinds of it.

Intrinsic: nature of the phenomenon

instrumental: facilitating our understanding

multiple/ collective: the least interest



# *Chapter 3*

## **Quantitative(QUAN) and Qualitative(QUAL) Inquiry**

**(At least one item in the PhD Entrance Exam)**

*Two camps of research methodology*

*Quantitative Inquiry*

*Qualitative Inquiry*

*Major characteristics of qualitative research*

*Designing qualitative research*

*Choosing problem*

*Criteria for evaluating qualitative research*

*Types of Qualitative Sampling*

*Data Collection*

*Ethical considerations in qualitative research*

*Tests*

---

**Two camps of research methodology** in general:

Constructivism/ interpreticism: using QUAL

Positivism / empiricism: using QUAN with standardized method objectively

**Note1:** Brown's constructivist approach (2004): QUAL and QUAN are a matter of degree or continuum Not a clear-cut dichotomy.

**Note2:** Empirical research is called *primary* research.

*Secondary research* is library or conceptual research. 3 types of primary data in applied linguistics: QUAN data, QUAL data and language data.

Schwandt (2000) describes qualitative inquiry as a '*reformist movement*' in general, uniting a wide variety of scholars who appear to share very little in common. QUAL is a 'home' for a wide variety of scholars.

**Note3:** QUAN follows 'meaning in general' and QUAL ' meaning in particular'; in-depth understanding. The ' meaning in particular' approach has not offered any bonus gift for the analysis phase of qualitative research.

For some scholars, the major attraction of QUAN is its systematic, 'individual-proof' nature , governed by precise rules and regularities.

Three positions regarding QUAL and QUAN difference:

**'Purist' approaches:** they are mutually exclusive and are at abstract level.

**'situationalists':** have values if they applied in appropriate research context and represents an 'either/or' approach.

**'Pragmatists':** corroborate or initiate findings of the other methods by interaction.

### **Quantitative Inquiry**

#### ***Purpose***

To generalize findings

To predict behavior

To provide causal explanations

#### **Approach**

Uses theory to ground the study

Uses manipulation and control of variables

Deductive then inductive

Seeks to analyze discrete components

Looks for the norm