THE SCIENTIFIC RESEARCH

DEFINITION research is a formal ,systematic,intensive processe used in the investigation of a problem . In the educational realm, it may be carried on by an individual ,team or organization it may be conducted in a class,school,or community.Research is not limited to a laboratory setting.

THE SCIENTIFIC APPROACH TO RESEARCH
Generally ,the quest for truth takes a person to one of five major sources of evidence
tradition ; learned authority ,personal experience
logicalreasoning ;scientific investigation
a review of the history of the development of research technology will reveal that theses sources are listed here chronologically .Because the last two sources offer will be limited to scientific inquirry
the scientific method involves a double movement of though the investigator directs his attention from the partially known and oftentimes confused information learned from observation previous investigations reflective thinking and so on toward a meaningful whole or generalization secondly he moves back from this suggested whole or generalization to the particular parts in order to connect these with one another in a meaningful pattern the first of these movements is INDUCTIVE the second DEDUCTIVE .The process of thinking is considired complete when the investigator moves to and from a meaning with appropriates interaction of his REASONING PROCESS occurring between recollected consederation and far -reaching general meanings
On the one hand induction is a movement toward the discovery of some principle while on the other hand deduction is a movement toward the testing of this principle for exemple confirming,accepting,modifying insofar as the investigator is able to interpret isolated details and see them in the light of organizing principle he will find valid relationships

TYPES OF SCIENTIFIC RESEARCH
we have three main types of research according to the aim
research that aims to discover the truth this research is used in general to treat social political economic problems however here we may not find solutions only if we discover the reality of problems and situations
Research that gives critical explanations in this type the researcher tries to arrive at a results s relying on logic and the gathered data
The complete research includes both types

AIMES OF RESEARCH
the chief purposes for conducting research are
to determine the status of phenomena past and present
to ascertain the nature composition and processes that characterize selected phenomena to trace growth developmental history change and status of certain phenomena
to study the cause and effect relationships among and between certain phenomena
NOTE
althrough man has not yet devised any perfect method of finding solutions to problems deemed worthy of investigation progress has been made there has been a gradual transition from seeking knowledge based purely on custom tradition authority and personal experience to appealing for evidence based on reasoning and scientific inquiry

CHARACERISTICS OF THE RESEARCHER
patience knowledge and culture including reading open mind mastery of the used language mastery of other languages
scientific doubt
scientific spirit the researcher has to be just respecting others' views fair and honest working hard and helping people and doing things for nation and country objective avoiding subjectivity and bias
able to organize ;avoid controversy
be brave especially in confessing mistakes