

CEM 599

Graduate Seminar

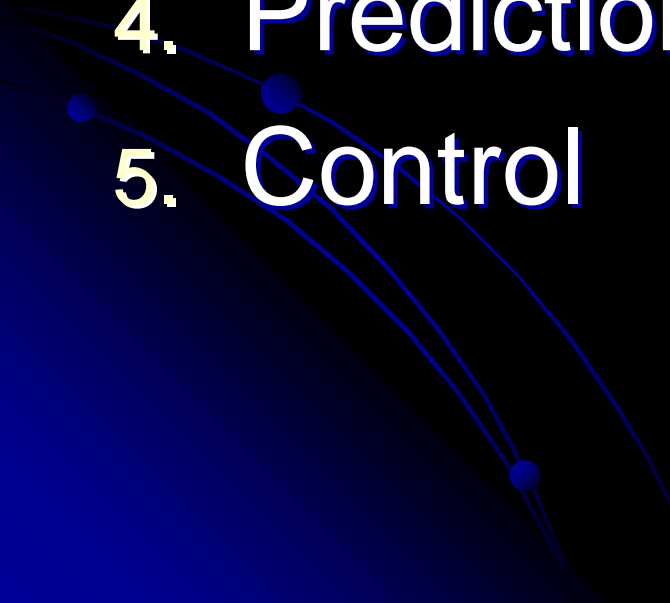
Dr. Abdul Aziz Bubshait



Research Definitions

- Research is defined as a systematic inquiry aimed at providing information to solve problems.
- “Systematic, controlled, empirical, and critical investigation of natural phenomena guided by theory and hypotheses about the presumed relations among such phenomena.” (Fred N. Kerlinger)

Level of Investigation

1. Reporting
 2. Description
 3. Explanation
 4. Prediction
 5. Control
- 

Level of Investigation

- Reporting

At the most elementary level, an inquiry may be made only to report some data, perhaps statistics.

Examples, are: the frequency and severity of construction injury; the frequency and severity of construction claim. Causes of contractor's failures.

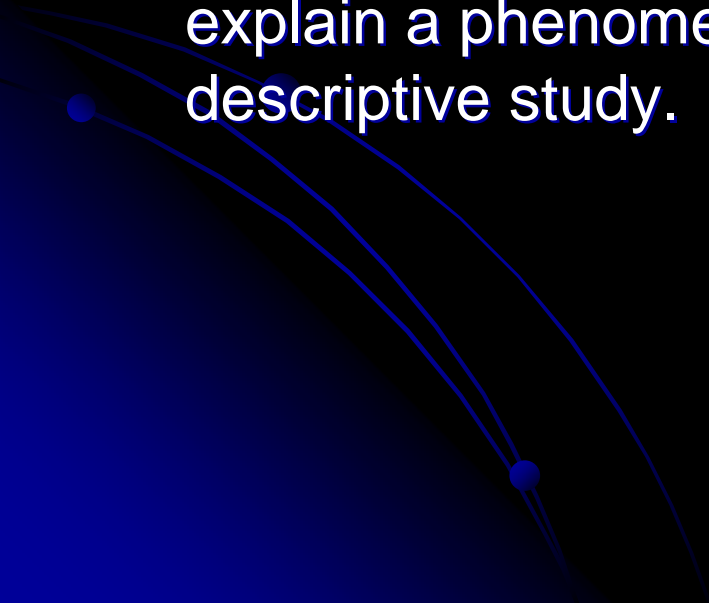
- Description

A descriptive study tries to discover answers to the questions of who, what, when, where, and sometimes, how. At this level the researcher attempts to describe or define a subject, often by creating a profile of a group of problems, people, or events.

Example: The role of manager in Construction Safety, Performance study of the lowest bidder bid awarding system in government project.

- Explanation

Both types of investigation are grounded in theory, and theory is created to answer why and how questions explanation goes beyond description and attempts to explain a phenomenon which was only observed in the descriptive study.



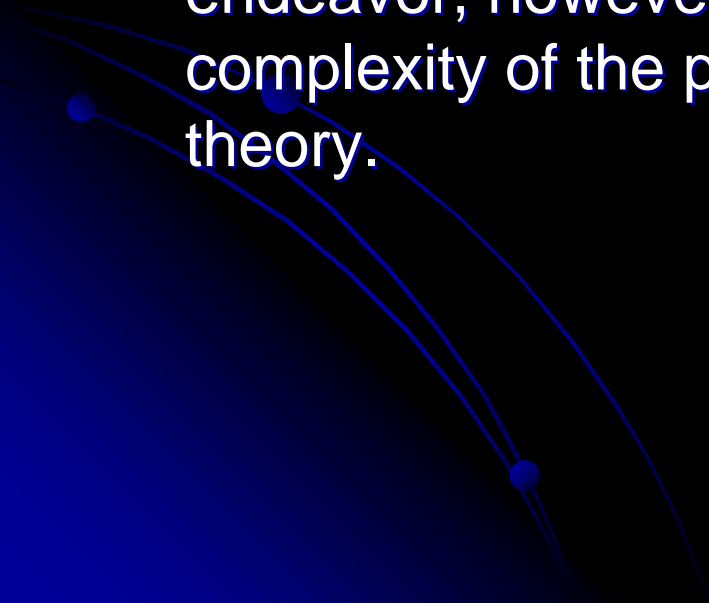
● Prediction

If we can provide a plausible explanation for an event after it has occurred, it is desirable to be able to predict when it will occur. Prediction, the fourth level of investigation, is just as rooted in theory as explanation.

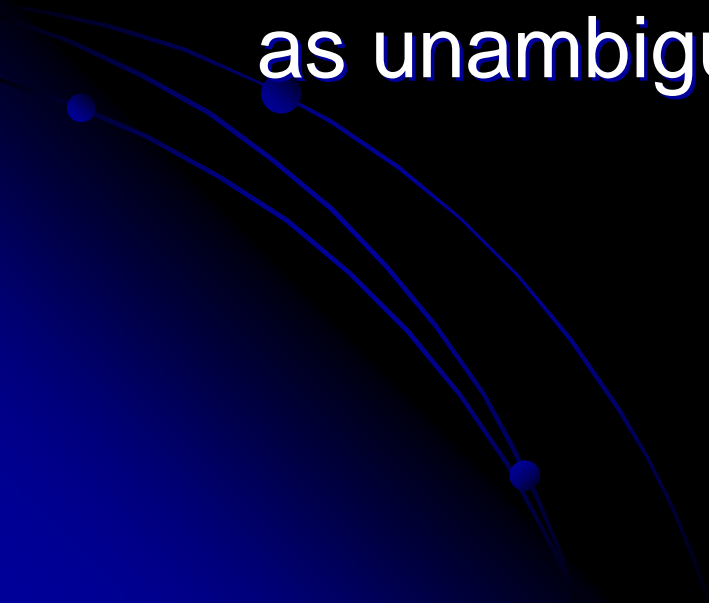
Example: Why would construction accidents increase at certain time of the year?

- Control

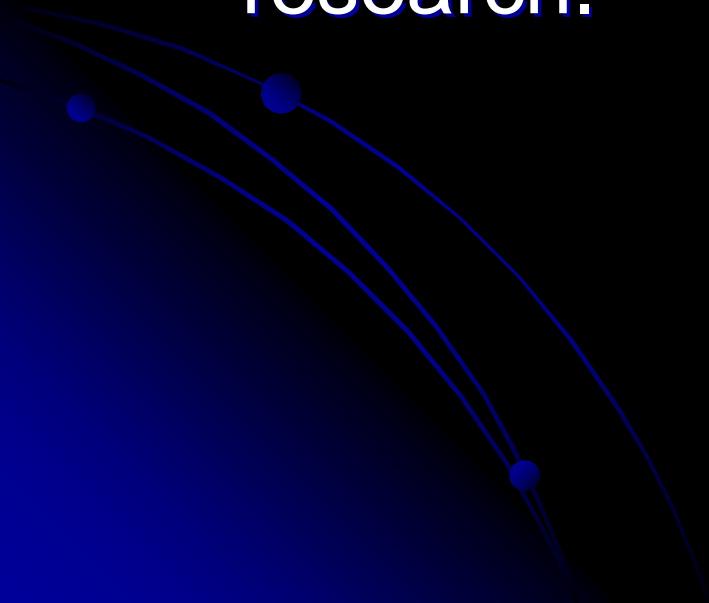
Finally, we would like to have the ability to control the phenomenon once we can explain and predict it. Control is a logical outcome of prediction. Success in this endeavor, however, is largely determined by the complexity of the phenomenon and the adequacy of the theory.



What is Good Research?

1. The purpose of the research, or the problem involved, should be clearly defined and sharply delineated in terms as unambiguous as possible.
- 

2. The research procedures used should be described in sufficient detail to permit another researcher to repeat the research.



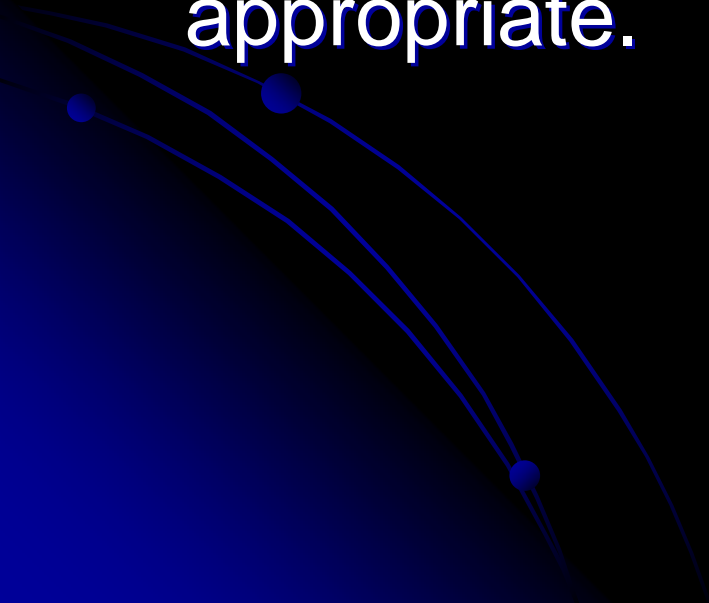
3. The procedural design of the research should be carefully planned to yield results that are as objective as possible.

A questionnaire ought not to be used when more reliable evidence is available from documentary sources or by direct observation.

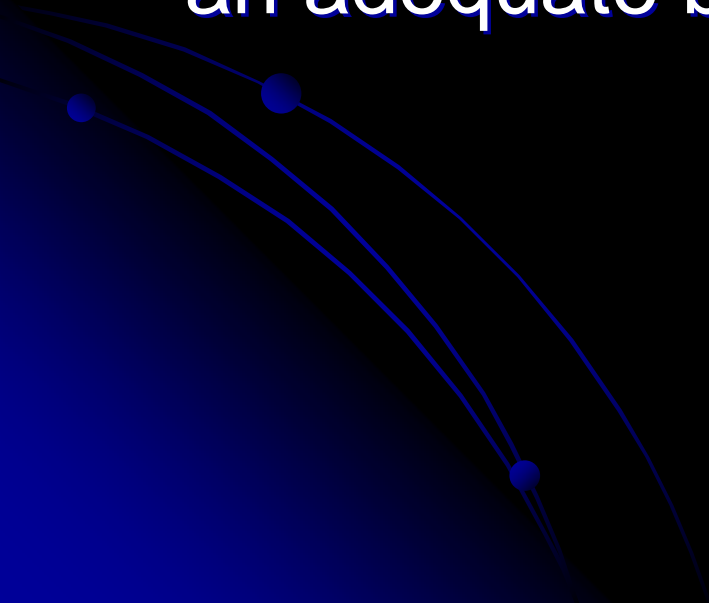
4. The researcher should report, with complete frankness, flaws in procedural design and estimate their effect upon the findings.

A competent researcher should be sensitive to the effects of imperfect design, and his experience in analyzing the data should give him a basis for estimating their influence.

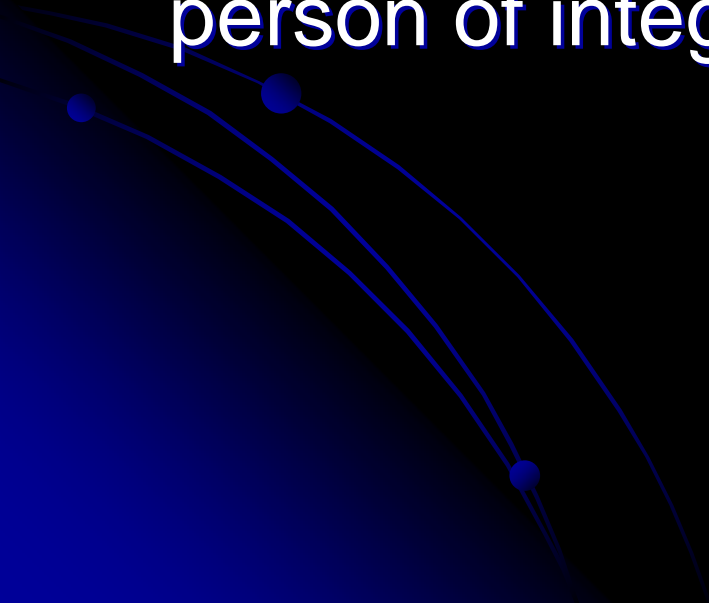
5. Analysis of the data should be sufficiently adequate to reveal its significance, and the methods of analysis used should be appropriate.



6. Conclusions should be confined to those justified by the data of the research and limited to those for which the data provide an adequate basis.



7. Greater confidence in the research is warranted if the researcher is experienced, has a good reputation in research, and is a person of integrity.



Reference:

Emory, W.C. and Cooper, D.R., Business Research Methods, 4th edition, 1991.

