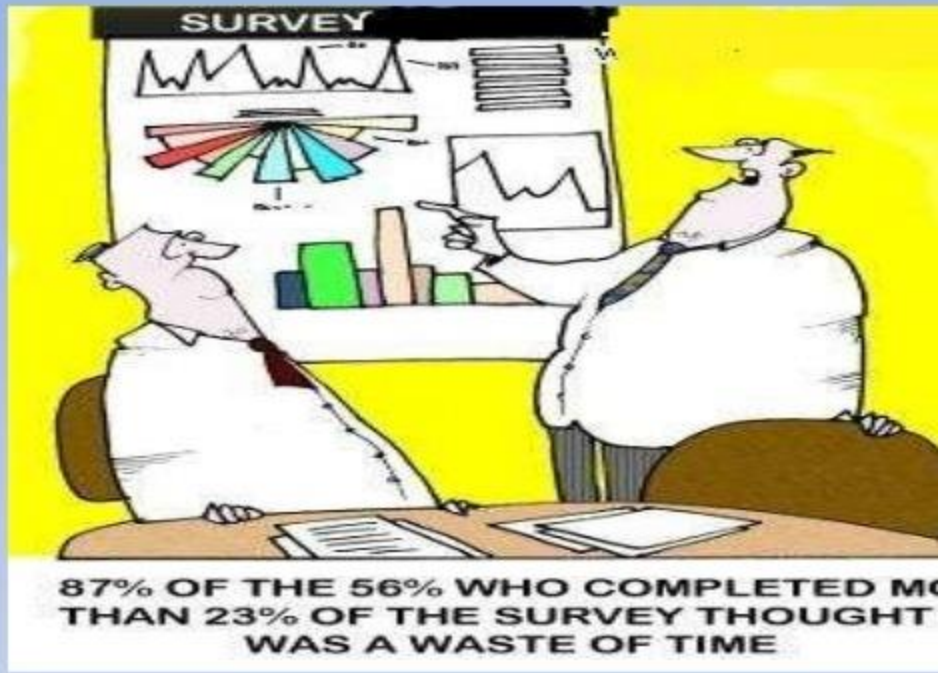
CHARACTERISTICS AND CRITERIA OF GOOD RESEARCH

Asst. Prof Dr. Marwan Kadhim Mohammed

Agenda

- What is Research ?
- Research Projects.
- Characteristics of Good Research.
- Criteria For a Good Research.

What Research Is



Research is:

"…the systematic process of collecting and analyzing information (data) in order to increase our

Characteristics of Good research

1. Originates with a question or problem.
2. Requires clear articulation of a goal.
3. Follows a specific plan or procedure.
4. Often divides main problem into sub problems.
5. Guided by specific problem, question, or hypothesis.
6. Accepts certain critical assumptions.
7. Requires collection and interpretation of data.

Research Projects

- Research begins with a problem.
- Identifying this problem can actually be the hardest part of research.
- In general, good research projects should:
  - Address an important question.
  - Advance knowledge

High-Quality Research

- Good research requires:
  - The scope and limitations of the work to be clearly defined.
  - The process to be clearly explained so that it can be reproduced and verified by other researchers.
  - A thoroughly planned design that is as objective as possible.

High-Quality Research

- Good research requires:
  - Highly ethical standards be applied.
  - All limitations be documented.
  - Data be adequately analyzed and explained.
  - All findings be presented unambiguously and all conclusions be justified by sufficient evidence

Criteria for a Good Research Process

- Research is an extremely cyclic process.
- This isn't a weakness of the process but is part of the built-in error correction machinery.
- Because of the cyclic nature of research, it can be difficult to determine where to start and when to stop.

STEPS FOR MAKING A GOOD RESEARCH

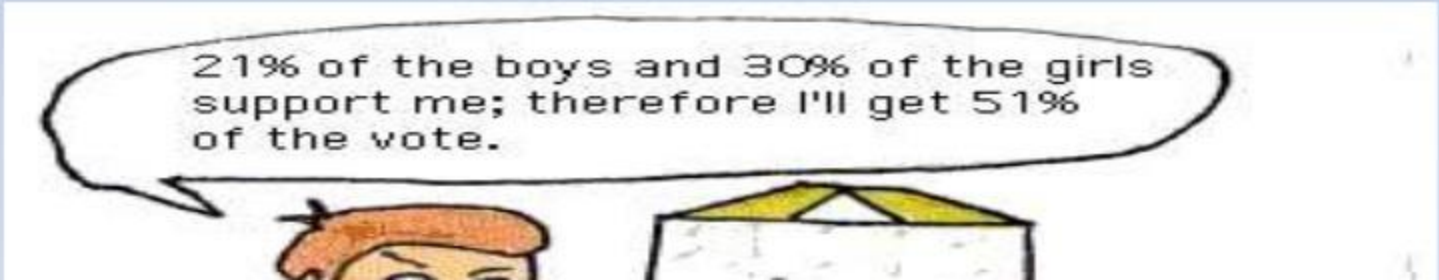
- Raising a Question.
- Suggest Hypothesis.
- Literature Review.
- Literature Evaluation.
- Acquire Data.
- Data Analysis.

Step 1: A Question Is Raised

- A question occurs to or is posed to the researcher for which that researcher has no answer.

Step 2: Suggest Hypothesis

- The researcher generates intermediate hypotheses to describe a solution to the problem.
  - This is at best a temporary solution since there is as yet no evidence to support either the acceptance or rejection of these hypothesis.



Step 3: Literature Review

The available literature is reviewed to determine if there is already a solution to the problem.

- Existing solutions do not always explain new observations.
- The existing solution might require some revision or even be discarded.

Step 4: Literature Evaluation

- It's possible that the literature review has yielded a solution to the proposed problem.

- On the other hand, if the literature review turns up nothing, then additional research activities are justified.

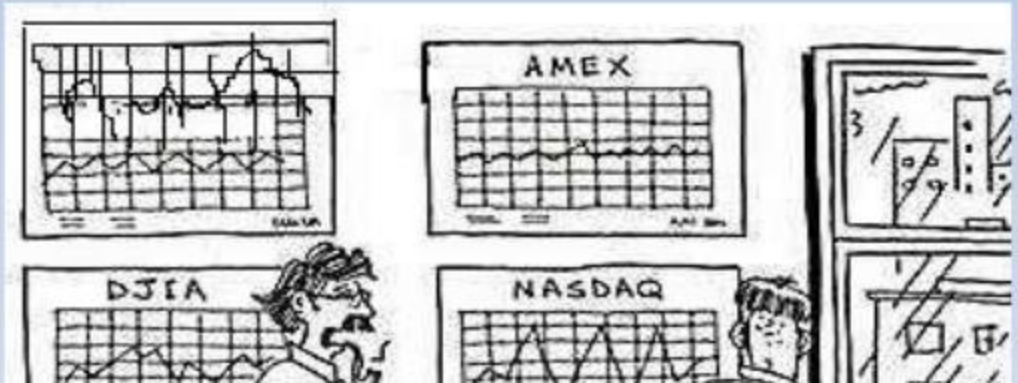
Step 5: Acquire Data

- The researcher now begins to gather data relating to the research problem.

- The means of data acquisition will often change based on the type of the research problem.

Step 6: Data Analysis

- The data that were gathered in the previous step are analyzed as a first step in ascertaining their meaning.
- As before, the analysis of the data does not constitute research.



Step 7: Data Interpretation

- The researcher interprets the newly analyzed data and suggests a conclusion.
  - This can be difficult.
  - Keep in mind that data analysis that suggests a correlation between two variables can't automatically be interpreted as suggesting causality between those variables.

Step 8: Hypothesis Support

- The data will either support the hypotheses or they won't.
  - This may lead the researcher to cycle back to an earlier step in the process and begin again with a new hypothesis.
  - This is one of the self-correcting mechanisms associated with the scientific method.

Thank You…