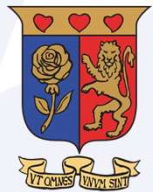


1. Introduction

Dr. Bernard Shibwabo



Strathmore
UNIVERSITY



Which of these can be classified as research?



Strathmore
UNIVERSITY

- 1) Tom Jerry prepared a paper on *“computer usage in Kenyan Primary schools”* after reviewing literature on the subject available in his university library and called it a piece of research.
- 2) Mary James says that she has researched and finalized *a document which gives information about the gender of her students, their age, their parents income and CAT results.*
- 3) Tom Ali participated in a workshop on curriculum development and prepared what he calls, *a research report on the curriculum for building technicians.* He did this through a literature survey on the subject and by discussing with the participants of the workshop.



Answer

- None of the above examples can be classified under the name research.

WHY ?

- You will know it when you have understood the concept of the term 'research'.



Consider the following case which is an example of **research**:

- A CEO of a car producing company was concerned with the complaints received from customers that the car they produce have some problems with rating sound at the dashboard and the rear passenger seat after few thousand kilometers of driving.
- He obtained information from the company workers to identify the various factors influencing the problem.
- He then formulated the problem and generated guesses (hypotheses).
- He constructed a checklist and obtained requisite information from a representative sample of cars.
- He analyzed the data thus collected, interpreted the results in the light of his hypotheses and reached conclusions.



Research is (Cont.)

- You will notice in the example above that the researcher went through a **sequence of steps which were in order and thus systematic.**
- Secondly, the researcher did not just jump at the conclusions, but used a **scientific method of inquiry in reaching at conclusions.**
- The two important characteristics of research are : it is **systematic** and secondly it follows a **scientific method of enquiry.**



Definition of Research (Research is)

- ... a **process** of enquiry and investigation; it is **systematic**, methodical and ethical; research can help **solve** practical problems and increase knowledge.
- Hunting for facts or truth about a subject.
- Organized scientific investigation to solve problems, test hypotheses, develop or invent new products.



Why Systematic

Research is systematic, because it follows certain steps that are logical in order. These steps are:

- Understanding the nature of problem to be studied and identifying the related area of knowledge.
- Reviewing literature to understand how others have approached or dealt with the problem.
- Collecting data in an organized and controlled manner so as to arrive at valid decisions.
- Analyzing data appropriate to the problem.
- Drawing conclusions and making generalizations.



The Purpose of Research is to...

- Review or synthesize existing knowledge
- Investigate existing situations or problems
- Provide solutions to problems
- Explore and analyse more general issues
- Construct or create new procedures or systems
- Explain new phenomenon
- Generate new knowledge
- ...or a combination of any of the above!

Motivation in Research

What makes people to undertake research? This is a question of fundamental importance. The possible motives for doing research may be either one or more of the following:

- 1) Desire to get a research degree along with its consequential benefits;
- 2) Desire to face the challenge in solving the unsolved problems, i.e., concern over practical problems initiates research;
- 3) Desire to get intellectual joy of doing some creative work;
- 4) Desire to be of service to society;
- 5) Desire to get respectability.
- 6) To develop new products
- 7) To investigate laws of nature

This is not an exhaustive list



High Quality Research!

- It is based on the work of others.
- It can be replicated (duplicated).
- It is generalizable to other settings.
- It is based on some logical rationale and tied to theory.
- It is doable!
- It generates new questions or is cyclical in nature.
- It is incremental.
- It is apolitical activity that should be undertaken for the betterment of society.



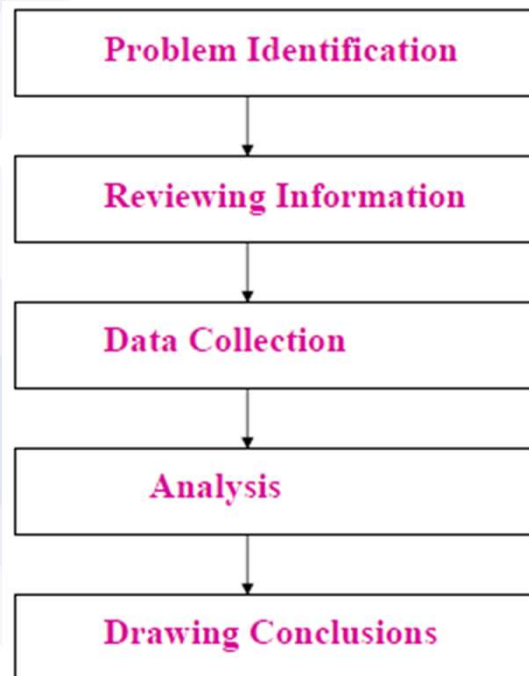
Then, what is bad research?

- The opposites of what have been discussed.
- Looking for something when it simply is not to be found.
- Plagiarizing other people's work.
- Falsifying data to prove a point.
- Misrepresenting information and misleading participants.



General Systematic Characteristic of Research

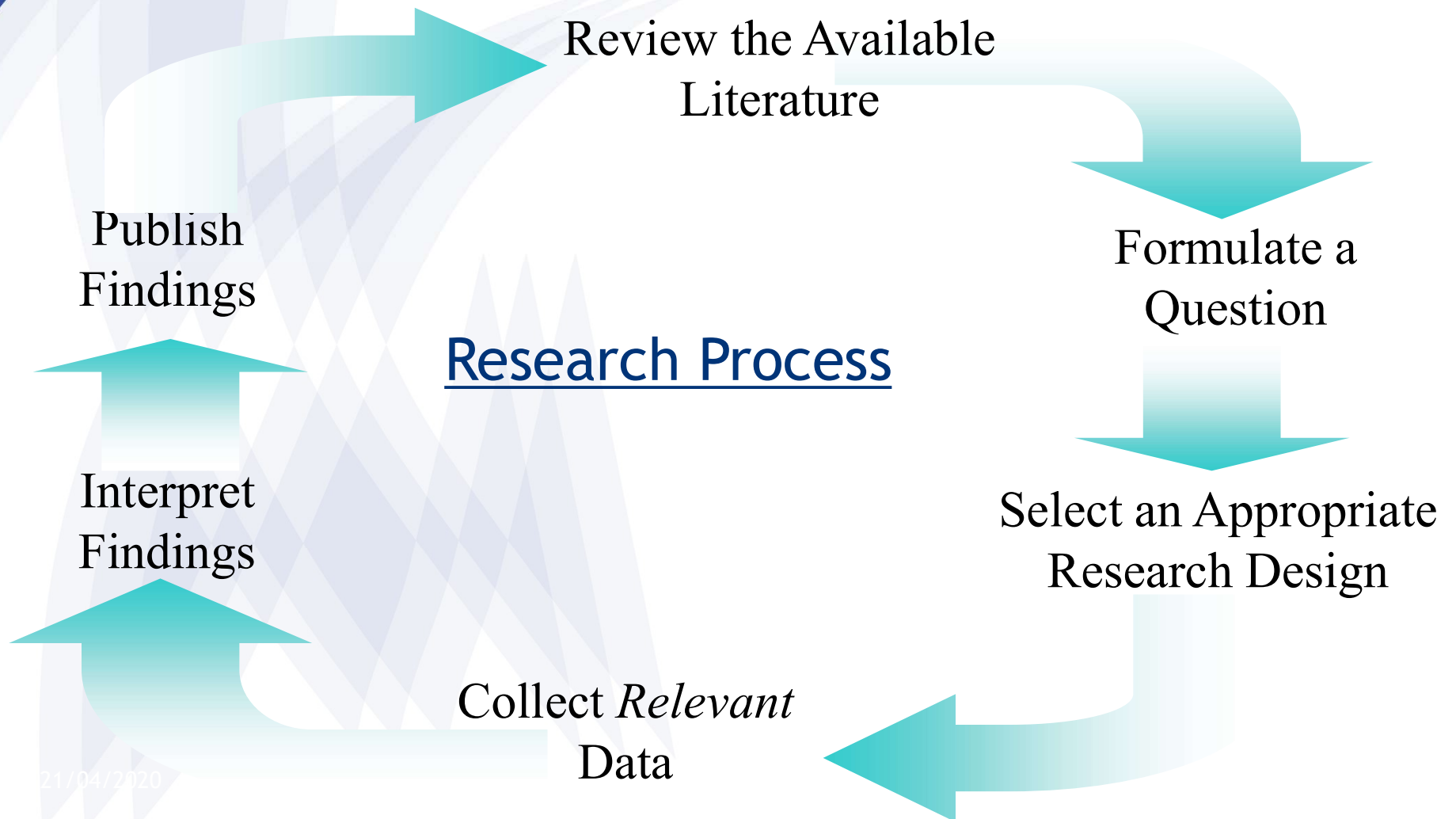
- The following are the systematic aspects that characterize research:



The Research Process: A perspective



Strathmore
UNIVERSITY



Types of Research:

Quantitative vs Qualitative Research



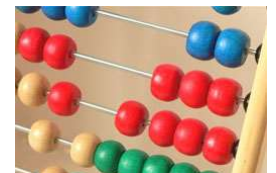
Strathmore
UNIVERSITY

This is based on the basis of nature of information:

- (i) Quantitative Research
- (ii) Qualitative Research

Quantitative research is based on the **measurement of quantity or amount**. It is applicable to phenomena that can be expressed in terms of quantity.

Qualitative research, on the other hand, is concerned **with qualitative phenomenon**, i.e., phenomena relating to or involving quality or kind. For instance, when we are interested in investigating the reasons for human behaviour (i.e., why people think or do certain things), we quite often talk of 'Motivation Research', an important type of qualitative research. This type of research aims at discovering the underlying motives and desires, using in depth interviews for the purpose.



Quantitative vs Qualitative Research (Cont.)



Strathmore
UNIVERSITY

Attitude or opinion research i.e., research designed to find out how people feel or what they think about a particular subject or institution is also qualitative research.

Qualitative research is specially important in the behavioural sciences where the aim is to discover the underlying motives of human behaviour. Through such research we can analyse the various factors which motivate people to behave in a particular manner or which make people like or dislike a particular thing.

Quantitative vs Qualitative Research (Cont.)



Strathmore
UNIVERSITY

- In summary, there are two basic approaches to research, viz., *quantitative approach* and the *qualitative approach*. The former involves the generation of data in quantitative form which can be subjected to rigorous quantitative analysis in a formal and rigid fashion.
- *Qualitative approach* to research is concerned with subjective assessment of attitudes, opinions and behaviour. Research in such a situation is a function of researcher's insights and impressions. Such an approach to research generates results either in non-quantitative form or in the form which are not subjected to rigorous quantitative analysis. Generally, the techniques of focus group interviews, projective techniques and depth interviews are used. All these are explained at length later.

Summary: Research Approaches



Strathmore
UNIVERSITY

Quantitative

- Measurable
- Numbers & Statistics
- Demographics
- Costs
- Weight
- Utility
- Quantity

Qualitative

- Observable but non-quantifiable
- Descriptions
- Behaviors
- Appearance
- Beauty
- Aesthetics
- Quality



Some Other Types of Research

- From the point of view of time, we can think of research either as **one-time research** or **longitudinal research**. In the former case the research is confined to a single time-period, whereas in the latter case the research is carried on over several time-periods.
- Research can also be **field-setting** research or **laboratory** research or simulation research, depending upon the **environment** in which it is to be carried out.

End



Strathmore
UNIVERSITY