

Libyan International Medical University LIMU

Essentials of Scientific Research

First Lecture

Presenter:

Sabri Elkrghli (PhD)

Associate Professor of Marketing Management

Dean, Faculty of Business Administration

Sabri.elkrghli@limu.edu.ly

Date: 20 / June / 2019

Contents

- Terminologies
- Research Title
- Research Introduction
- Research Problem
- Research Importance (Contribution / Value)
- Research Objectives
- Research Hypotheses / (Questions)
- Research Context
- Literature Review

Contents

- Research Methodology
 - Research Philosophy (Ontology – Epistemology – Paradigm)
 - Data Collection Methods (Quantitative Approach – Qualitative Approach – Mixed Methods Approach)
 - Data Analysis Softwares (SPSS – AMOS – Lisreal - NVIVO – R ...etc.)
 - Sampling Issues
 - Statistical Tests

Contents

- Writing Process (Grammar – Spelling – Layout – Proofreading)
- Quotations
- References (Endnote Programme)
- Viva / Defence
- Students' Pitfalls
- Tips For Proposal writing



Knowledge

- Knowledge is a set of meanings, thoughts, ideas, opinions and facts acquired (learnt) as a result of people's / Scientists' frequent manoeuvres (attempts) to understand the world / phenomenon around us.
- The meaning of knowledge: facts, information, and skills acquired through experience or education.
- The theoretical or practical understanding of a subject.
- Awareness or familiarity gained by experience of a fact or situation.
- The state of knowing about / or being familiar with something.

Science

- Science is an organised knowledge emerged from observation, experiments, tests that search to understand the nature of phenomenon / things around us.
- Science is the intellectual and practical activity encompassing the systematic study of the structure and behaviour of the physical and natural world through observation and experiment.
- Science is a systematically organized body of knowledge on a particular subject.
- Knowledge is not equivalent / synonymous to science.
- knowledge includes different types of information that might be considered as a science or not. Hence, every science is a knowledge, but not the other way around.

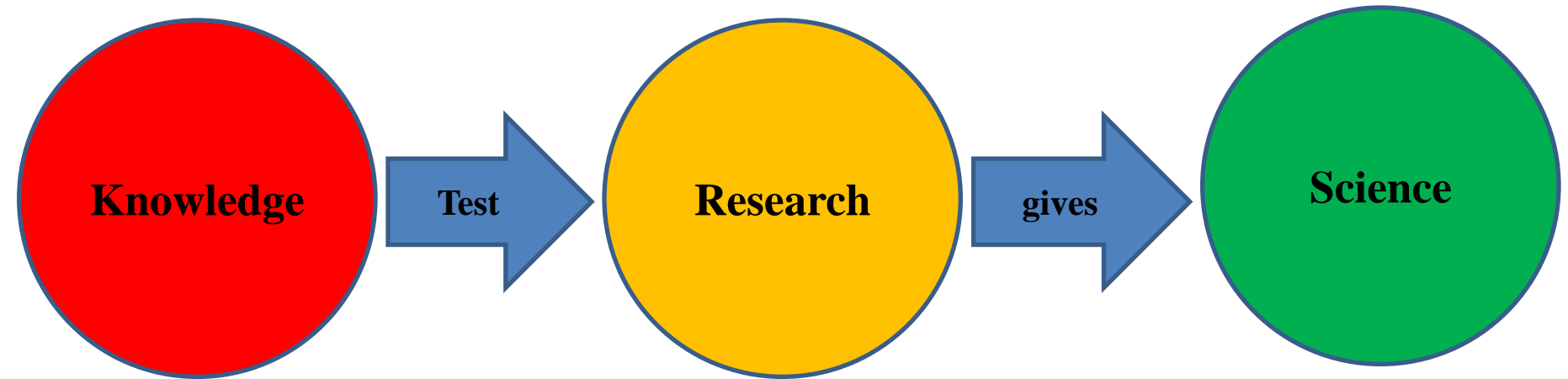
Research

- Research is an organised investigation seeks to achieve a verified / tested new knowledge.
- Research is an organised investigation seeks to discover facts and relationships among variables to solve Problems / enhance practices in life.
- Research is the scientific method that performs a methodical study in order to prove or disprove a hypothesis, or answers a specific question.
- Research can then follow a series of steps and the standard protocol of experiment, depending on the conventions of the specified field of study.

Types of Research

- Theoretical / desk research: also is called Secondary research and can be performed based on verified published data. Hence, data is ready to be used for the intended research. Information needed can also be found in books, journals, articles, magazines, etc.
- Empirical / field work research: also is called primary research as it needs empirical work, visits, experiments, observations in order to collect the required data for the specified research.
- In many cases, the two types of research are perfectly complement each other to consolidate the researcher's argument.

Knowledge, Science & Research



Researcher



Saturday, June 22, 2019

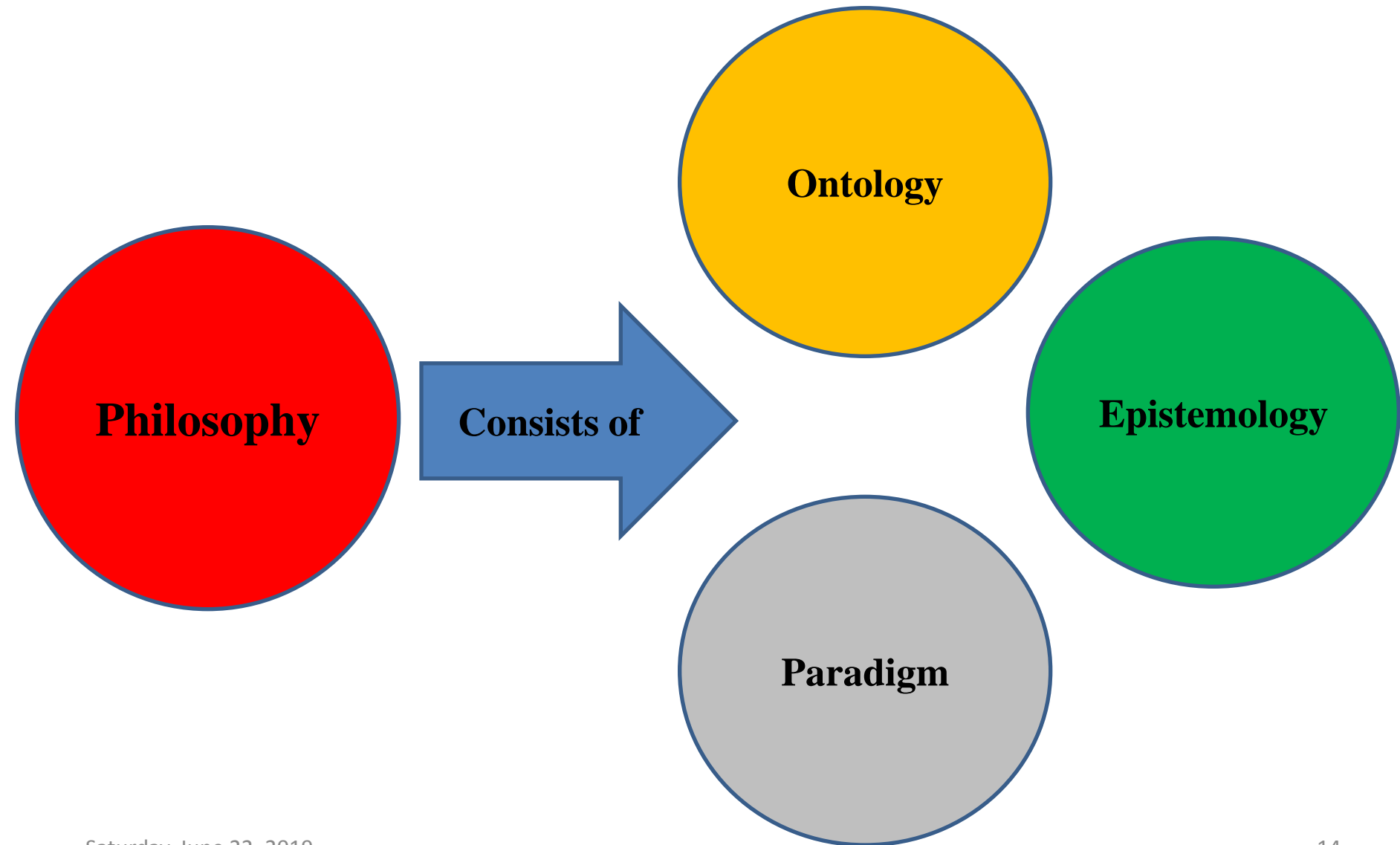
Researcher Characteristics

- The ideal researcher should possess the following traits:
 - Patience
 - Hard-working
 - Inquisitive
 - Honest
 - Determined
 - Disciplined
 - Enthusiastic
 - Passionate
 - Sacrifice

Philosophy

- **Philosophy:** refers to how (the way / method / approach) to use causes / reasons to understand things (phenomenon) around us.
- **Ontology:** the nature of reality /being / existence. What a researcher thinks can be researched / studied / investigated? What is out there to know? What is reality / realism / truth? Is it agreed upon?
- **Epistemology:** the nature of knowledge. What we know about it? How could we know it? How can we know things in life? How to learn things in life?
- **Paradigm:** a typical model of something.

Philosophy



Research Title



Research Title

- The title is an important part of research, and it is mandatory that the title should be as perfect as possible.
- The outstanding title should be characterised with some / all of the following features:
 - Attractive (Eye Catchy).
 - Interesting.
 - Very clear and concise.
 - Reflects the research methodology (exploratory / explanatory/ theoretical or analytical ...etc.).

Research Title

- The title should mirror the research problem.
- The title should reflect the research objectives.
- The title should reflect the context (country, city, sector ...etc.).
- The title should reflect the statistical analysis: descriptive study (exploratory), analytical study (explanatory) correlation, regression, moderation, mediation...etc.
- The title should be as short as possible. The outstanding title should be less than 15 words.
- The title should mirror as many aspects as possible....

Research Introduction



Introduction

- Introduction is the first Page / Paragraphs of your essay that introduces the main idea of your work.
- A good opening paragraph captures the interest of your reader, and tells why your topic is important (valuable).
- Explain in your introduction what your topic is about without details.
- The important issue is to give the reader a brief idea about your topic without the need to read the full document.
- Write using your own style, words and ideas. Express yourself thoroughly...
- No Quotations / References / citations / footnotes in this part of research...

Research Problem



Research Problem

- A research problem is a (focal point) statement about an area of concern, a condition to be improved upon, a difficulty to be eliminated, or a troubling question that exists in scholarly literature, in theory, or in practice that points to the need for meaningful understanding and deliberate investigation.
- In some social science disciplines, the research problem is typically posed in the form of one or more questions.
- A research problem does not state / dictate how to do something.
- It only offers you a vague or broad proposition (critical issue). It presents a valuable question.

Research Problem

- **How can I find a research problem to work on?**
- Research problem can be attained from the following sources:
 - Reading articles
 - Reading awarded dissertations and theses
 - Reviewing the extant literature
 - Browsing Professional Newsletters / Magazines
 - Developing previous recommendations (academic papers / official reports...etc.)

Research Problem

- Research problem can also be attained from the following sources:
 - Daily life / work observations (e.g. Your company)
 - Personal Experience
 - Brainstorming / Invention / Innovations / Creativity
- You need to support your problem to come up with a strong research argument (evidence-based argument).
- That means you need citations, numbers, percentages, evidences from previous studies or official reports ...etc.
- You can write your problem as a statement or even as a question. Both are acceptable in many research. Consult your field.....



**Good
Luck!**