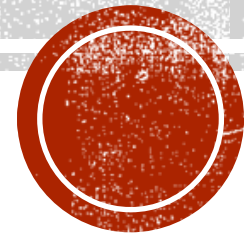


DEPARTMENT OF PUBLIC HEALTH

PURPOSE AND PROCESS OF HEALTH RESEARCH



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3rd year MBBS



Imagine that you are in a boat, in the middle of the sea. Suddenly, you are surrounded by hungry sharks, just waiting to feed on you. How can you put an end to this?



OBJECTIVES

- Review the definition of research .
- Explain different types of health research and Importance of research in health.
- Define research process
- Discuss and explain how to start with research.
- Explain different steps in research process.



WHAT IS RESEARCH?





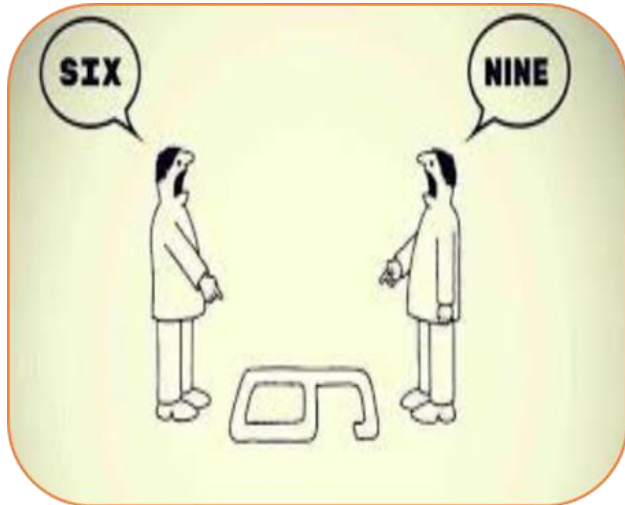
Investigation



Discovery



Additional information



Quest for undiscovered truth



Innovative way of thinking



Way to understand things and solve problems

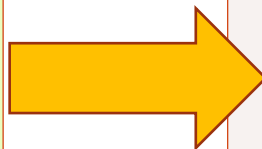


WHAT IS RESEARCH ?

“Research includes formal gathering of data, information facts for the advancement of knowledge”.

Research is defined as the creation of new knowledge and/or the use of existing knowledge :

■ Is a new and creative way to generate



■ new concepts, methodologies and understandings. ...



WHY CONDUCT RESEARCH ?

Objectives or purpose of Research

- ❖ **To extend knowledge**
- ❖ **To put light on hidden facts or mysteries.**
- ❖ **Generalization of laws**
- ❖ **To verify and tests the existing facts and theories**
- ❖ **Finding solution to problem**

Purpose of Research



- explore
- describe
- explain

CLASSIFICATION OF RESEARCH

Research can be classified by its purpose, its process and its outcomes.

Purpose

- Exploratory
- Descriptive
- Analytical
- Predictive

Process

- Quantitative
- Qualitative
- Mixed Method Research (quantitative & qualitative)

Outcome

- Applied
- Basic/ Pure/ Fundamental
- Action



DESCRIPTIVE RESEARCH

- It includes fact-finding enquiries of different kinds such as what, why ,when who ,how .
- The main aim is description of a phenomena at present

For example :

Road-traffic-related mortality in Pakistan: a descriptive study



ANALYTICAL RESEARCH

The aim of this research is to understand phenomena by discovering and measuring causal relations among them .

The distinction between descriptive and **analytical research** is based on the question it asks. Descriptive **research** attempts to determine, describe, or identify what is, while **analytical research** attempts to establish why it is that way or how it came to be or how can we reduce or increase it

**Road accident rates:
strategies and programmes
for improving road traffic
safety**



EXPLORATORY RESEARCH

- An exploratory design is conducted about a research problem when there are few or no earlier studies to refer to.
- The focus is on gaining insights for later Investigation or when problem are in Preliminary stage of investigation

An **exploratory study** of positive life changes in women diagnosed with **breast cancer**



Positive
MIND • VIBES • LIFE

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PREDICTIVE RESEARCH

- It studies and determines the frequency with which something occurs or its association with something else.

For example.

Predicting breast cancer survivability

The major area in which it is used includes business, clinical setting, marketing Government agency .



QUALITATIVE RESEARCH

- This research is designed to find how people feel or what people often think .
- Its aim is to discover the underlying motives of human behavior through detailed description
- The data is in form of words ,pictures or objects

**Managing depression through needlecraft creative activities:
A qualitative study**



QUANTITATIVE RESEARCH

- This is based on the measurement of quantity or amount.
- It can only be expressed in terms of quantity
- Tools such as questionnaire or equipment is used to collect data
- Data is in the form of numbers.

Gender and age differences in depression



APPLIED RESEARCH

- It is used to answer a specific question ,solve a specific problem or to gain better understanding.
- It is also known as action research
- The main goal of applied scientist is to improve the human condition for e.g
Treat or cure a specific disease.

Investigating treatment and management options for anxiety and panic attacks.



FUNDAMENTAL/BASIC/PURE RESEARCH

- Is a type of investigation focused on improving
- Understanding of a phenomenon, Study or law of nature.
- It looks at how processes or concepts work
- It often creates a foundation for applied studies

A study to discover the components making up human DNA



EXAMPLES OF HEALTH RESEARCH

???



EXAMPLES OF HEALTH RESEARCH

- How common is skin cancer among adults living in California?
- Is daily vitamins associated with decreased risk of colon cancer?
- How much does the risk of severe hearing loss increase with age?
- What are the most common sign symptoms associated with multiple sclerosis?



GOAL OF HEALTH RESEARCH



Make discoveries that can benefit society such as :

Identification of emerging health problems that should be addressed.

Testing of new interventions for preventing or treating diseases.

Contribution of information to the scientific literature that researchers and policy makers use when creating new plans and policies

Synthesis of existing knowledge so that it can be applied by others .



RESEARCHERS BENEFIT

Acquisition of
new skills

Satisfaction
of personal
curiosity

Fulfillment of
degree or
work
requirements

Opportunity to
become a
published
author

Possibility that
at some point in
future the
researchers work
will contribute in
at least small
way to making at
least one person
healthier



WHAT IS RESEARCH PROCESS?

Series of various actions which are necessary for effective research work .





The Research Process

1 Identify

A research topic and the information you need

2 Find

Information by using keywords & search strategies

3 Evaluate

The information you found and decide if you can use it

4 Organize & Use

The information you have in the argument you are making



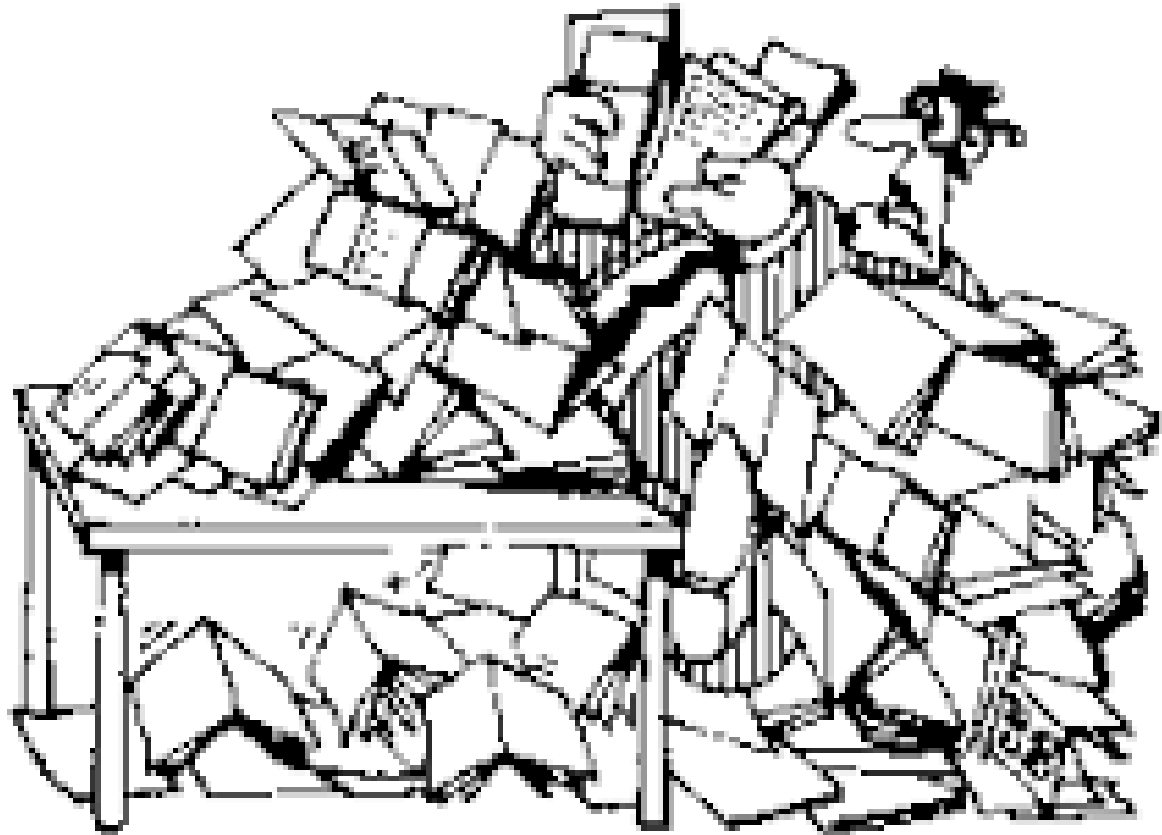
How and
where do you
start ?



Like this ?



LIKE
THIS ?



■ **FROM WHERE YOU GET INFORMATION
FROM?**

WHAT SOURCES?????





Magazine/
Journal



The main sources from where literature can be searched are as ...



LIBRARY ?



 Ask a Librarian



Go  g  e

Google Search

I'm Feeling Lucky

- Use guided keyword searching to find materials by topic or subject.
- Print or write down the citation (author, title, etc.) and the location information



SEARCH ENGINES

- FIND ADDITIONAL
INTERNET
RESOURCES

- [Google](#) and its
branches,
- [Google Scholar](#),
- [Google Books](#),
- [Google News](#),
- [YouTube](#)





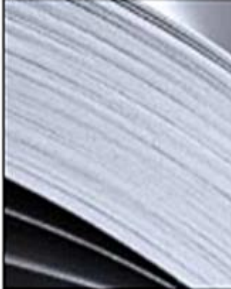
Articles include patents Case law

Stand on the shoulders of giants

NCBI Resources How To Sign in to NCBI

PubMed.gov PubMed Search


US National Library of Medicine National Institutes of Health Advanced Help



PubMed

PubMed comprises more than 24 million citations for biomedical literature from MEDLINE, life science journals, and online books. Citations may include links to full-text content from PubMed Central and publisher web sites.

PubMed COMMONS






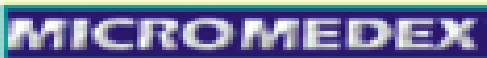
Featured comment - Mar 12
Detecting delirium: Author E Marcantonio replies to Journal Club @GerMedJC on use of assessment method. 1.usa.gov/1whVwbf

Using PubMed	PubMed Tools	More Resources
PubMed Quick Start Guide	PubMed Mobile	MeSH Database
Full Text Articles	Single Citation Matcher	Journals in NCBI Databases
PubMed FAQs	Batch Citation Matcher	Clinical Trials
PubMed Tutorials	Clinical Queries	E-Utilities (API)
New and Noteworthy 	Topic-Specific Queries	LinkOut



Where to start when you need information

- A quick review of a topic
 - UpToDate
 - Emedicine
- Drugs
 - Micromedex MDConsult
 - UpToDate Drugs@FDA.gov
- Extensive review
 - Cochrane Library
- **Everything else**
 - **Start with PubMed/Embase**

	National Library of Medicine Index of all Medical Literature FREE
	Intranet Access Only
	Full Text Journals Online Password
	Password required
	Full Text books and journals Register for access Drug Database
	Intranet Access Only
	INSTANT ACCESS TO THE MINDS OF MEDICINE

STEPS IN THE RESEARCH

PROCESS

STEP 1: Select a research topic or area and conduct background reading and formulate your question



STEP 2: Get background information



STEP 3: Refine your search topic



STEP 4: Consider your resource options



STEP 5: Select the appropriate tool

A list of ten steps



STEP 6: Use the tool



STEP 7: Locate your materials



STEP 8: Analyse your materials



STEP 9: Organize and write



STEP 10: Compose your bibliography



REMEMBER.

The steps of any population health research project are:



All these steps are essential for an effective research process



REFERENCES

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2. Research methodology and basic biostatistics by Saira Afzal
3. Ridley, D. (2008) *The Literature Review: A Step-by-Step Guide for Students*. London: SAGE
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THANK

YOU!

