



Research Methodology Concept

It is the method that the researcher follows in his study of the problem under investigation. Among the main methods used in various sciences are the historical and documentary method, the descriptive and survey method, the experimental method, and the case study method.

Steps of scientific research

The steps of scientific research refer to those stages that the researcher must follow to complete his research. When we say research steps, we are referring to the scientific foundations that determine the specific successive stages that the researcher performs regularly in all stages of the research.

It is agreed that scientific research follows interconnected and sequential steps characterized by consistency, organization, and clarity, and helps to organize the researcher's ideas and efforts, as well as facilitating the process of monitoring and evaluating those efforts by supervisors and the entities to which the research is submitted.

Stages of scientific research

Scientific research consists of the following stages

The first stage: preparing the research plan, which will be discussed
.later

Second stage: The theoretical writing stage

: The theoretical writing stage includes

: A- Review of previous literature, which includes

. Search for similar previous research or studies

. Definitions and concepts of the most important terms of the study

. Measurement methods used in data collection

. Sources of data and strategies for collecting data and information

.The suggestions are based on previous studies

is: B- One of the benefits of the study's literature

. Saving the researcher effort

. Identifying suitable models

Using modern definitions, data, and statistics

. Clarify and explain the background of the problem or topic

. Statement of research originality

.Avoiding mistakes made by researchers

Phase Three - Indicators and Measures Development Phase

To develop the indicators included in the research, the following steps

: must be taken

Explaining and clarifying concepts

Describing the dimensions of the concept

Indicator development

Fourth stage: Determining the type of data and the method of collecting
it

Phase Five: Data Collection

Stage Six: Data Revision and Computer Entry

Phase Seven: Data Analysis

Stage Eight: Writing the Analysis

Stage Nine: Writing the report in its final form

Research plan preparation phase and its components •

: How to prepare it

: Research title

: Sources for choosing research topics

. PhD and Master's theses

. Reports and statistics

. Books and references

. Scientific articles and journals

.Contact with experts and specialists

the introduction •

It provides a general overview of the research and clarifies its main objective. It should not exceed one page. There is a significant

difference between the introduction and the abstract, which we will

: explain in due course. The introduction includes

A brief paragraph about the topic, then mentioning what the first chapter

covered, which is the general framework of the study, then what the

second chapter covered in the form of outlines of the topics, then what

the third chapter included, which is the field study, and finally what the

. fourth chapter covered, which is the results and recommendations

The abstract includes: a brief paragraph about the topic, then an explanation of the study problem, its objectives, its importance, the

methodology and the sample used, then a mention of the most

prominent results and recommendations, so as to give a complete idea

. of the research without referring to the original document

Identifying the problem •

Recognizing the problem is the first and most important step that forms the basis for choosing a research problem

The research problem is defined as the subject of study that the researcher chooses to conduct the research on, and it comes as a result of his feeling that there is a defect, deficiency, or ambiguity in a certain aspect, and he wants to learn more about that subject, or find a solution to that defect or deficiency, or reveal the ambiguity in it

Formulating the research problem: The researcher must be precise and clear in formulating the problem they choose. There are several ways to : formulate the problem, as follows

Formulating the problem as a question: The researcher formulates the problem as a question when the problem is clear and there are one or more questions the researcher wishes to answer. The problem is crystallized as "a statement in the form of a question inquiring about the relationship between two or more variables, and the answer to this question is the purpose of the scientific research process." During this process, the researcher defines the research problem they seek to solve by accurately identifying its dimensions and presenting a complete picture of the problem. When writing the problem statement, the researcher should clarify the scientific justifications for studying the research topic so that it contributes a new scientific contribution. There must be scientific justifications presented by the researcher for studying a specific problem in order for the study to make a new scientific contribution

Formulating in the form of a hypothesis: It helps to prove or disprove -2 of a relationship between two variables. A hypothesis existence the is a statement that identifies or describes the relationship between two or more variables in a way that enables the researcher to test its validity or lack thereof

A hypothesis is a temporary solution or explanation that the researcher puts forward to solve the research problem. It is a possible answer to the research questions, and hypotheses represent a relationship between two or more variables, some of which are dependent and some independent

Example: There is a direct relationship between academic progress and
. internet usage

Example: There are statistically significant differences among university
library directors due to differences in their level of academic
. achievement, experience, and academic specialization

Example: There is an inverse correlation between the manager's
. educational level and his ability to make decisions independently

Study objectives: The objectives are formulated by reviewing the -3
. research problem and hypotheses

:The importance of the study and the reasons for choosing the topic- 4

: The importance of the research is demonstrated through the following

. The research has not been approached before in the proposed way

The topic is important; its importance may be to the researcher or to
. society, for example

: Study Methodology: This includes defining the following- 5

. Determine the type of method or approach

Specify the type of data required

Determine the method and sources of data collection, whether it be a
. questionnaire or interviews

. Determine the time period required to collect the data

Exposure to obstacles facing the problem

: Study population and sample- 6

A- Defining the study population, its characteristics, and its size
. numerically, if possible

. b) Determining the type and size of the sample

C - A logical justification must be given for the reasons for choosing
.this type and size of sample

Study Limits: These are the boundaries and limits that the researcher -7
is obligated to adhere to. They are written down, and there are limits that
the researcher must not exceed. The scope of these limits is imposed on
him by the study itself, as it is dictated by the nature of the study and the

researcher who is writing this topic. Therefore, before the researcher delves into writing about a specific topic, whether in any type or field of knowledge, he must know its limits and establish the boundaries of this study that the researcher cannot exceed. The research limits are divided into three sections

: Objective boundaries

These boundaries exist in all types of scientific research, and the first type of boundary is considered to be the subject matter. The topic may be broad, so the researcher works to clarify this and justify their focus on the subject

: Time limits- 2

;This type of limitation may or may not be present in scientific research therefore, it is not mentioned in most research and studies and is considered "the second type of limitation." A researcher may specify a time period to cover and exclude another period, providing justification for doing so

: Spatial boundaries- 3

It is "determining where scientific research is available, and like time limits, it may or may not be available. This type of limit is considered the third type of limit"

Previous Studies: Previous studies are considered one of the most important pillars of scientific research. A scientific study or research cannot be considered complete and successful without previous studies. Previous studies consist of a collection of scientific research and studies that have explored the field of study that the researcher is currently investigating. This gives the researcher a comprehensive and general understanding of the subject matter. Previous studies provide the researcher with new ideas and play a significant role in helping them identify and select the appropriate scientific research methodology for their study. Previous studies are written in several ways, including

: methodthe annotated bibliography

It is "the traditional and most common method for writing and presenting
". previous studies

: Secondly, the historical sequence method

It is "a method in which the researcher refers to a number of previous
." studies and arranges them from oldest to newest

: Thirdly, the method of comparing differences and similarities

It is "a method that involves writing down the points of convergence and
points of divergence between previous studies that he referred to during
." his scientific research

: Previous studies include several elements•

the name of the researcher and the year the previous studyWrite -1
. was written

. The main objective of the study- 2

. Study methodology- 3

. The study population and sample- 4

. Results of previous studies- 5

. Recommendations from previous studies- 6