

Research Methodology:

It the way of making (doing) a research by following certain steps (methods).

- ⇒ We do a research methodology in order to know how we study the problem, and how we solve it by following steps to have a valid result.
- ⇒ As a researcher we have a critical thinking, we analyze everything, and we have to say it in objective and positive way.
- ⇒ The researcher's work and search is just a kind of evaluation.

If we want to do a research:

- 1) We have to defined what we want to product (the topic or the problem)
- 2) How we're going to do it?
 - ⇒ By following the different steps that makes research process which are divided into 3 stages (planning stage – extinction stage – writing up stage).

A) Planning stage:

The steps:

- 1) Selecting a research topic.
- 2) Identifying and formulating the research problem.
- 3) Formulating hypotheses or research question both (depending your research).
- 4) Reviews of literature (initial literature review) each research needs a theoretical background, we cannot invent new theory, so we use those that already done before, and we analyze then to find a new theory.
- 5) Developing the research plan / design.
 - ⇒ Identification of the population and sample (not all research need to this step; it's according to your topic).
 - ⇒ Selection (or development) of the data collection instrument.
 - ⇒ Specification of the data analysis method or technique.

B) Executing or the implantation stage:

The steps: It has three (3) steps

- Collecting data.
- Analyzing data.
- Interpreting the result and forming conclusion.

C) Writing up or the publication stage:

The step = It has 1 steps

- Presenting the result in appropriate form.

D) The formulating of the topic:

⇒ Before doing a research we have to know if the topic (research problem) is relevant or not.

To know it we ask 8 questions

- 1) Is the topic too broad or too narrow?
 - If it is too broad, we have to narrow it.
 - If it is too narrow, we have to generalize it.
- 2) Could the problem be investigated?
- 3) Can we analyze the data we have gathered?
- 4) Is the problem significant (important)?
- 5) Can the result of the study be generalized?
- 6) What cost and time are involved in the analysis?
- 7) Is the plan approach appropriate to the problem?
- 8) Is there any potential harm to the population? (Physically or psychologically) we have to keep the participant safe.

⇒ **When choosing a topic we have to take in consideration or to select 8 elements.**

- 1) **Interest:** We have to choose a topic that interests us.
- 2) **Magnitude:** We have to be sure that the topic is manageable within the cost and time we have.
- 3) **Level of expertise:** We have to be expert in the domain of the topic that we choose.
- 4) **Clarity:** It should be clear; understandable the topic should be state in simple terms.

5) Relevance

6) Significance

} It should be relevant and significant; we have to add something new.

- 7) **Availability of data:** We have to know that the data we need are available.
- 8) **Ethical issues:** Do not know people physically or psychologically.

II) Literature Review:

We read books to know what has been done before or what have already exists.

- ⇒ It helps us to narrow down our topic.
- ⇒ It helps is to know what was done, how it was done in order to know what we need, to do or to ask.

Review:

It is the easiest way to know what happen in the book which summarize it (it contain all the information about the book).

Function of Literature Review (advantage):

- 1) It all owes us (researchers) to get knowledge about the topic (to get more information).
- 2) To know the gaps (what was missing to rectify them and to add something new.
- 3) Ti rely all the existing knowledge.
- 4) It allows us to choose the method for our topic.
- 5) It helps us to contextualize our research to other works done before, but we should add something original.

The steps to do a Literature Review: It has three (3) steps

- 1) The reading list:
It refers to the list of books that we should read and take notes to help us in doing our research (we just select the important books and we omit to useless one.
- 2) Reading Critically:
We read the suitable books critically, and then we summarize the important information we need, and we divide them into themes.
- 3) The use of the information:
We use all the important information that we took and found in the book or a support to our research.

The sources of Literature Review

1) Primary Sources:

They are publication (books, articles...), they are the owners another works in which researcher report the result of their studies directly to the reader.

2) Secondary Sources:

They are publication on which another criticize and explain other works or research of other authors or researchers.

A journal is a group of article, and each article is written by “in a book we can find two writers”.