Level: LMD3

**Module: Research Methodology** 

# DATA COLLECTION

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# **Data Collection**

Data collection is an important process in research.
 There are two types of data. According to Kothari:

The *primary data* are those which are collected afresh and for the first time, and thus happen to be original in character. The *secondary data*, on the other hand, are those which have already been collected by someone else and which have already been passed through the statistical process (2004, p. 95).

#### **Data Collection**

- The collected data are classified into two types: quantitative and qualitative. Quantitative data are numerical. .Qualitative data refer to descriptive information.
- The process of data collection relies on the following principles:
- The collected data should be suitable to the studied object.
- The collected data should be reliable.
- The use of adequate tools is necessary.
- Research ethics are important.

#### **Data Collection**

 The collection of secondary data involves the use of published and unpublished materials.
 The collection of primary data relies on the use of various instruments including questionnaires, interviews, observation and tests.

 The questionnaire is a research tool used to collect qualitative and quantitative data. It is a set of written questions. The questionnaire may include close-ended questions, multiple choice questions and open-ended questions.

- The form of the questionnaire is important.
   According to Cohen et al. (2007, p.336):
  - The ordering of the questionnaire is important, for early questions may set the tone or the mindset of the respondent to later questions. For example, a questionnaire that makes a respondent irritated or angry early on is unlikely to have managed to enable that respondent's irritation or anger to subside by the end of the questionnaire.

- The questionnaire should be short and simple
- The questions should be simple.
- They should be clear.
- They should move from close-ended questions to openended questions.
- There should be a balance of questions that ask for facts and opinions.
- The researcher should consider the reading and writing abilities of the respondents.
- The researcher should ensure that the respondent knows how to reply like circling, ticking or writing.
- Piloting the questionnaire is necessary.

## Advantages:

- The questionnaire helps to collect data in an easy and economical way.
- The questionnaire may be more representative.

## Disadvantages:

- -The questionnaire is employed when the informants are literate.
- Some persons may return the questionnaire without answering all the questions.
- The questionnaire may introduce bias.

 The interview is a conversation between the researcher and the informant. Its main purpose is to collect data about people's opinions and attitudes. The interview often includes more open-ended questions.

 Interviews enable participants – be they interviewers or interviewees – to discuss their interpretations of the world in which they live, and to express how they regard situations from their own point of view. In these senses the interview is not simply concerned with collecting data about life: it is part of life itself (Cohen, 2007, p.349).

- The interviewer should prepare a plan in advance.
- The interviewer should take into consideration the following factors: the objectives of the interview, the nature of the topic and the respondent's level of education.
- He/ she must make the interviewee feel at ease during the interview.
- The questions should be well-formulated.
- The interviewer should have the ability to discuss and listen to help the interviewee to collaborate and participate in the conversation.

## Advantages:

- The interview can provide more information.
- The interviewer has the opportunity to restructure the questions and can record the answers.
- The interviewer can control the sample.

## Disadvantages:

- The interview may introduce bias.
- The interview is time-consuming.
- The respondent may give unreliable information.

# Observation

 Observation is a research tool used to examine persons in natural settings. "Because observed incidents are less predictable there is a certain freshness to this form of data collection that is often denied in other forms, e.g. a questionnaire or a test" (Cohen et al., 2007, p. 396). Therefore, observation helps the researcher to get a deep understanding of the studied phenomenon.

#### Observation

- The researcher should think about when, where, how and what to observe.
- He/ she should think about the duration of the period of observation.
- The researcher should take into consideration the timing of the observation (morning or afternoon).
- He/ she should think about the context of the observation.
- He/ she should concentrate and be attentive.
- The researcher has to focus on details.
- The researcher has to record the events of the observation

#### **Observation**

## Advantages:

- The researcher can record information about the natural behaviour of a group.
- The researcher can collect reliable information easily.
- The subjectivity of the informants is eliminated.
- Disadvantages:
- The researcher may not control the observation.
- The observer may be subjective.
- The collected information may be limited.

# **Tests**

 A test is a tool of evaluation. Moreover, it can be used as a research instrument. "In tests, researchers have at their disposal a powerful method of data collection, an impressive array of tests for gathering data of a numerical rather than verbal kind" (Cohen et al., 2007, p. 414). When constructing a test, the researcher should take into consideration the following elements:

- The purposes of the test
- The content of the test
- The format of the test
- The validity and reliability of the test
- The timing of the test.
- The scoring of the test.

## Advantages:

- Tests provide information about learners' knowledge.
- The results of tests help the researcher to make a comparison between different groups of learners.
- Tests are more reliable.

## Disadvantages:

- Tests may be expensive.
- They may not be flexible.
- Tests can be subjective.

# References

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