Level: Master I (LS)

Module: Methodology in Social Sciences

Data Collection

Prof. Rahmouna ZIDANE

Department of English

University of TLEMCEN

Data Collection

The phase of data collection represents a crucial step that enables the researcher to provide knowledge and supply details about the studied issue. It relies on the researcher's ability to:

- set clear objectives
- determine the research questions
- define the sample
- identify the research instruments
- take into consideration time management

The Purposes of Data Collection

Data collection is a process that helps to:

- answer the research questions
- provide facts and opinions
- supply more details about the studied issue
- give arguments

The Characteristics of Data Collection

The process of data collection should take into account the following criteria:

- validity
- reliability
- completeness
- accuracy

The Ethical Principles of Data Collection

The main ethical principles of data collection are as follows:

- voluntary participation
- informed consent
- anonymity and confidentiality

Data Quality Issues

- The quality of data refers to the value of the collected information which determines the relevance and accuracy of the research results. It is based on several criteria including validity and reliability.
- The quality of data may be influenced by a set of issues such as the irrelevance and unreliability of the gathered information which may be caused by various factors. It also depends on the researcher's skills and his/her way of interpreting the collected data.

Factors Affecting the Quality of the Collected Data

 The quality of the collected data and the research results may be affected by certain factors such as the informants' attitudes towards the investigation taking place and the nature of the employed tools.

The informants' Attitudes

• The attitudes of the respondents towards the study and their way of collaborating with the researcher can affect the results of the investigation. The informants' attitudes can take different forms. Brown (1988) claims that such attitudes may create the Hawthorne effect and the Halo effect.

The informants' Attitudes

 The Hawthorne effect means that some people may have a feeling of superiority because of being chosen to be involved in a study so that they will perform well due to such a feeling.

The informants' Attitudes

 The Halo effect refers to the fact that sometimes the informants may respond positively and provide positive replies since they like the subject or the person they are questioned about. The people involved in the study may also give unreliable answers because they just want to please the researcher and help him/her in his/her research.

 Problems of measurement may arise when using questionnaires, interviews, tests and observation as tools of gathering data because these instruments rely on human behaviour and people's opinions which are not stable. Brown (1988) lists three types of problems related to the measurement process. They are: the practice effect, the reactivity effect and the instability of the results.

- The practice effect is linked to the results obtained when employing the same tools repeatedly. This means that the informants will provide different answers to the questions of the interview or questionnaire when administered for a second time.
- If a test is administered to a group of students twice and the level of these learners increased, the improvement of these results would underline the practice effect which is related to the possibility that the learners' progress is due to the fact that they remembered the questions and learnt from the mistakes they previously made in such a test.

- The reactivity effect refers to the reaction of the respondents towards a research tool such as a questionnaire or an interview since they may provide opinions and answers that do not really reflect their previous attitudes and their actual behaviour.
- It implies that the employed measures create a change in the attitudes of the informants concerning the studied subject so that they will adopt the ideas presented in a questionnaire or an interview and consider them as principles.

- The instability of the research results means that the researcher employs the same tool of investigation more than once but he/she may get different findings.
- For instance, the same test may be utilized repeatedly to measure the performance of a certain group of learners but the results may not be stable and may be different from those of the first test.
- The same thing can be said concerning the administration of a questionnaire to the same group of people twice and obtaining different answers from each respondent.

Data Quality Assessment

- In order to obtain reliable research results, it is necessary to get valid and accurate information. Therefore, the researcher has to assess the quality of the gathered data using several techniques that are employed to detect errors in the process of data collection.
- Two main approaches are followed to preserve the integrity of the collected information and ensure good data quality. They refer to a set of activities and procedures that aim at improving the validity and reliability of the gathered information. These approaches are: quality assurance and quality control.

Quality Assurance

- Quality assurance is a procedure that aims at preventing errors and ensuring the
 quality of information. It precedes the process of data collection as it attempts to
 check the reliability of the research tools and strategies. It refers to the activities
 that take place before starting to gather information.
- The main purpose of quality assurance is the identification of the problems that
 may occur when collecting data. It helps to discover the difficulties that may arise
 during such a process and the causes of these problems such as the uncertainty
 about the methods of research and the vague description of the research
 activities.
- Quality assurance focuses on explaining the issues that may lead the researcher to
 deviate from the original plan. It relies on the careful planning of the steps to be
 undertaken in the phase of information gathering and the items that should be
 collected as well as the accurate choice of the research instruments.

Quality Control

- Quality control aims at checking the quality of the obtained data by detecting and correcting errors. It refers to the activities taking place during and after data collection. It involves detection and action.
- Detection implies the monitoring of the data quality through the use of a defined structure to examine the gathered information and to question their accuracy. It can take the form of the examination and review of the collected data to discover inconsistencies and errors.
- The action phase focuses on the activities that are necessary to correct faulty information. It involves a set of procedures and corrective actions that aim at ensuring the reliability of the results. For instance, the same respondents might be asked the same questions on two distinct occasions in order to check the quality of the collected data.

The Quality of Data

- The effectiveness of the gathered information depends on the appropriate implementation of the procedures of quality assurance and quality control.
- Training is needed for the successful assessment of the quality of the collected data. Also, the researcher must rely on a variety of sources and reliable research instruments.

References

- Brown, James Dean. (1988). Understanding Research in Second Language Learning. Cambridge: CUP.
- Cohen, Louis, Manion, Lawrence, and Morrison, Keith. (2007).
 Research Methods in Education. New York: Routledge
- Genesee, F. and Upshur, J. (1996). Classroom-Based Evaluation in Second Language Education. Cambridge: CUP.
- Monsen, Elaine R., and Van Horn, Linda. (2008), Research: Successful Approaches. USA: American Dietetic Association.
- Shamoo, Adil E., and Resnik, David B. (2009). *Responsible Conduct of Research*. Oxford: OUP.