**MATRIC NUMBER: 16/MHS02/029**

**DATA COLLECTION METHODS**

**WHAT IS DATA COLLECTION**

Data collection is the process of gathering and measuring information on variables of interest, in an established systematic fashion that enables one to answer stated research questions, test Hypotheses, and evaluate outcomes. The goal for all data collection is to capture quality evidence that then translates to rich data analysis and allows the building of a convincing and credible answer to questions that have been posed.

**CLASSIFICATIONS OF DATA COLLECTION METHODS**

**QUANTITATIVE DATA COLLECTION METHOD**

Quantitative data is numerical in nature and can be mathematically computed. Quantitative data measure uses different scales, which can be classified as nominal scale, ordinal scale interval scale and ratio scale. Quantitative approaches address the ‘what’ of the program. They use a systematic standardized approach and employ methods such as surveys and ask questions.

Quantitative approaches have the advantage that they are cheaper to implement, are standardized so comparisons can be easily made and the size of the effect can usually be measured.

Quantitative data collection methods include;

* **ADMINISTERING SURVEYS WITH CLOSED ENDED QUESTIONS;** here the respondents will only have to choose their answer among the choices provided on the questionnaire.
* **INTERVIEWS;**
* **Face-to-face interviews:**this yield quantitative data when standard questions are asked. The face-to-face setup allows the researcher to make clarifications on any answer given by the interviewee.
* **Telephone and/or online, web-based interviews.**Conducting interviews over the telephone is no longer a new concept. Rapidly rising to take the place of telephone interviews is the video interview via internet connection and web-based applications, such as Skype.
* **Computer-assisted interviews.**This is called CAPI or Computer-Assisted Personal Interviewing where, in a face-to-face interview, the data obtained from the interviewee will be entered directly into a database through the use of a computer.
* **OBSERVING AND RECORDING WELL-DEFINED EVENTS;** This is straightforward enough. Data may be collected through systematic observation by, say, counting the number of users present and currently accessing services in a specific area, or the number of services being used within a designated vicinity.
* **EXPERIMENTS/CLINICAL TRIALS;**These methods involve manipulation of an independent variable, while maintaining varying degrees of control over other variables, most likely the dependent ones. Usually, this is employed to obtain data that will be used later on for analysis of relationships and correlations.

Types of experiment include;

* Laboratory experiments
* Fields experiments
* Natural experiments

**QUALITATIVE DATA COLLECTION METHODS**

Qualitative data are mostly non-numerical and usually descriptive or nominal in nature. This means the data collected are in the form of words and sentences. Qualitative approaches aim to address the ‘how’ and ‘why’ of a program and tend to use unstructured methods of data collection to fully explore the topic.

Qualitative approaches are good for further exploring the effects and unintended consequences of a program. They are, however, expensive and time consuming to implement. Additionally the findings cannot be generalized to participants outside of the program and are only indicative of the group involved. Qualitative data collection methods include;

* **FACE-TO-FACE PERSONAL INTERVIEWS;** This is considered to be the most common data collection instrument for qualitative research, primarily because of its personal approach. The interviewer will collect data directly from the subject (the interviewee), on a one-on-one and face-to-face interaction. This is ideal for when data to be obtained must be highly personalized. The interview may be informal and unstructured conversational, even as if taking place between two casual to close friends.
* **QUALITATIVE SURVEYS;**
* **Paper surveys or questionnaires;** Questionnaires often utilize a structure comprised of short questions and, in the case of qualitative questionnaires; they are usually open-ended, with the respondents asked to provide detailed answers, in their own words. It’s almost like answering essay questions.
* **Web-based questionnaires;** this is basically a web-based or internet-based survey, involving a questionnaire uploaded to a site, where the respondents will log into and accomplish electronically. Instead of a paper and a pen, they will be using a computer screen and the mouse.
* **FOCUS GROUPS;** Focus groups method is basically an interview method, but done in a group discussion setting. Ideally, the focus group should have at least 3 people and a moderator to around 10 to 13 people maximum, plus a moderator. Depending on the data being sought, the members of the group should have something in common. For example, a researcher conducting a study on the recovery of married mothers from alcoholism will choose women who are (1) married, (2) have kids, and (3) recovering alcoholics.
* **DOCUMENTAL REVISION;** this method involves the use of previously existing and reliable documents and other sources of information as a source of data to be used in a new research or investigation.
* **OBSERVATION**; in this method, the researcher takes a participatory stance, immersing himself in the setting where his respondents are, and generally taking a look at everything, while taking down notes. Aside from note-taking, other documentation methods may be used, such as video and audio recording, photography, and the use of tangible items such as artifacts, mementoes, and other tools.
* **LONGITUDINAL STUDY**; this is a research or data collection method that is performed repeatedly, on the same data sources, over an extended period of time. It is an observational research method that could even cover a span of years and, in some cases, even decades. The goal is to find correlations through an empirical or observational study of subjects with a common trait or characteristic.
* **CASE STUDIES**; In this qualitative method, data is gathered by taking a close look and an in-depth analysis of a “case study” or “case studies” – the unit or units of research that may be an individual, a group of individuals, or an entire organization.