

METHODS OF PRIMARY DATA COLLECTION

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Abstract: This text provides an overview of the concepts, types, sources, methods and tools of data collection in social research. It explains the differences between quantitative and qualitative data, primary and secondary data, and observation, interview and questionnaire as data collection methods. It also briefly introduces content analysis as a technique for using secondary data sources.

Keywords: data collection, social research, quantitative data, qualitative data, primary data, secondary data, observation, interview, questionnaire, content analysis.

1.0 Introduction:

Research is a very specific activity, as opposed to merely gathering information or writing a description. It entails the selective gathering of data, which is then carefully processed to offer responses to research questions and assess the findings. Data collection is the process of gathering the desirable information carefully, with least possible distortion, so that the analysis may provide answers that are credible and stand to logic (Sapsford & Jupp, 2006).

The researcher must develop his or her data collection procedures after the sample is finalised. The methods and equipment used to collect data vary. Both theoretical and empirical research uses these techniques and tools. It is essential to remember that the methodologies and instruments will vary based on the type of study. We may be required to apply more than one method or tool to collect data in some research. We shall examine various forms of data in this research study before going into great detail on tools and techniques for gathering data. For a researcher who wants to carry out an insightful study, these are crucial ideas.

2.0 Types of Data

2.1 Quantitative Data

Applying several scales of measurement allows for the creation of quantitative data. People's experiences are mapped onto common reactions with accompanying numerical values. These statistics are brief and hardly offer any depth or specifics. Either parametric or non-parametric data are quantitative. Measurements are made on an interval or ratio scale for parametric data. We utilize ratio scale measurement, for instance, to evaluate reaction time. An example of an interval scale measurement is the result of a psychological test or inventory. Application of ordinal scales or nominal measurement produces non-parametric data. This information is either ranked or counted.

2.2 Qualitative Data

Qualitative information is communicated through words or symbols. In-depth descriptions of observed actions, people, circumstances, and events are examples of qualitative data. A questionnaire or schedule with open-ended questions, first-person accounts of people's experiences, thoughts, and viewpoints, and selected material or excerpts from case studies, documents, personal diaries, and letters are examples of other qualitative data formats.

3.0 Sources Of Data

3.1 Primary Data

Two important sources of data are people and paper in social research. Answers of people to questions in social research are the primary sources of data. Primary data are facts gathered by the researcher themselves. The researcher intentionally collects this information because there are no older recordings of the data that are accessible

to the general public. Primary data can be gathered using a range of methods, such as surveys, focus groups, and interviews. Such details are thought to be quite reliable.

3.2 Secondary Data

Information that has been compiled and produced by someone and is accessible to the general public is known as secondary data. It is the data the researcher compiled from past studies and additional sources. Secondary information is what is used when main information is later utilised in another research endeavour. Secondary data examples include government reports, census data, departmental records, etc. Secondary data can be used more quickly and affordably than primary data. A sizable amount of data is already available, including historical records, papers, biographies, statistical data, diaries, etc. They are also known as "available data source" or "secondary sources of data."

A researcher has three alternatives when determining how to gather data from primary sources: observation, interview, and questionnaire. On the other side, researchers will employ the content analysis approach if they use secondary sources of data.

4.0 Primary Source Data Collection Methods And Tools

1. Interview
2. Observation
3. Questionnaire

4.1 Interview

During the interview, the researcher and respondents have spoken conversations. This method of data collection has been applied frequently. This method involves posing oral verbal queries and obtaining oral verbal answers. Many individuals think that the best method to understand someone's behaviours is to ask them directly about it during an interview. In this approach, the interviewer generally listens to the interviewee's comments as the interviewee is asked questions face-to-face.

4.1.1 Types of Interview

Different categories have been used to classify interviews. Diagnostic interviews, which are widely used in clinical settings, are one type of interview that can be categorised based on their objectives. Another way to classify interviews is by the number of participants, such as in a group interview or an individual interview. Another element in categorising interviews is their format, such as structured or unstructured.

4.1.2 The Structured Interviews

Structured interviews, as the name implies, maintain some kind of control over the respondents. However, a great deal of flexibility is given in determining how organised interviews should be. The questions and the answers are the primary means through which an interview is constructed. In an interview, the questions are controlled to extract the right answers. Giving the interviewee a variety of options regulates and controls the subject's responses. To do this, the questions must be focused and asked in the right order to get accurate and relevant answers. It is also beneficial to ask the same questions in the same order during different interviews.

4.1.3 The Unstructured Interviews

There is no predetermined order for the questions in unstructured interviews. The questions are not in any particular order. In other words, the interviewer may not ask the same questions in the subsequent interview. There are variations in the language of the questions themselves. In conclusion, the interview is not subject to any limitations.

4.1.4 Group Interview

In an interview, we recommend asking questions of each person separately. In contrast, we interview multiple people at once in group interviews. Up to ten participants may speak about the focus of an investigation in a group interview while being steered by the interviewer. Such interviews may not typically result in systematic information from every member of the group on every topic addressed in a personal interview, but they are more effective as a

source of hypotheses or as a method of learning more about the group.

4.1.5 Telephone Interviews

When people are dispersed over a vast geographic area and are likely to have phones, telephone interviews are conducted. The benefits and drawbacks of both mailed questionnaires and in-person interviews are frequently combined in telephone interviews. The main merit of conducting interviews over the phone is their quick completion, low cost, and generally high response rates. In a short time following the traumatic event, it is possible to conduct large-scale surveys via telephone interviews in order to obtain quick reactions. The main criticism of telephone interviews has been that they don't represent the full population because only some people have phones.

4.2 Observation

Observation is the cornerstone method for understanding the social issues being studied. Observations can be utilised as a method of data collection if they are structured in accordance with the purpose of the study and meticulously recorded while considering the validity and dependability of observed data. There are many situations where this kind of observation is seen to be most appropriate. This method of observation will be used, for example, by a researcher who wishes to understand the behaviours of vocally handicapped children.

4.2.1 Types of Observation

There are various types of observations that range from being completely unstructured to being structured in order to satisfy the needs of researchers and the general objectives of the research tasks. One way to distinguish between various observation kinds is to make distinctions based on the level of structure. As a result, we are left with two observational techniques: unstructured and structured. The role of the researcher is one additional method of classification. On the basis of this, two kinds of observation techniques may be made: (I) participant observation and (II) non-participant observation.

4.2.2 Structured Observations

The units to be observed and the data to be recorded are described in explicit, exact language in structured observations. This is only achievable with a properly constructed problem. Structured observations are typically used in studies that aim to characterise an issue or test a causal hypothesis. The use of structured observation processes presupposes that the researcher can plan the recording of observations before he begins data collection and is aware of which aspects of the issue under study are pertinent to his research goals

4.2.3 Unstructured Observations

In a real-world environment, it is frequently hard to plan out the "observation" process beforehand. If the researcher doesn't have enough data to structure his findings, especially in exploratory studies, he may need to change what he observes. These alterations are characteristics of unstructured observation. The unstructured observations' adaptability allows for occasional shifts in the focus, if and when plausible clues call for such changes.

4.2.4 Observations by participants

Participating in the daily activities of the researcher's study group counts as participant observation. The aim of participant observation is to put both the observer and the observed on the same side by integrating the observer into the group so that he can share their experiences and function within their context. The researcher particularly becomes a part of the community he is researching.

4.2.5 Observations by Non-participants

Contrarily, non-participant observation is observation in which the observer abstains from participating in the group's actions being studied. Non-participant observers take adopt a detached persona and record without attempting to interact with the group being observed.

4.3 Questionnaire

The research objectives are converted into specific inquiries by the questionnaire's questions. To ensure that the required information is collected, the question must also motivate the respondent. Most often, inquiries fall into one of two broad categories: factual questions and opinion and attitude questions.

4.3.1 Factual Questions

The respondents are questioned factually to elicit information about their backgrounds, such as their age, marital status, level of education, and income. An illustration of such a question is the one that follows:

What is your level of education? (Please check one)

1. Graduate
2. Intermediate
3. High School
4. Middle School
5. Primary
6. Illiterate

4.3.2 Opinion and Attitude Questions

The term "attitude" refers to a person's overall tendency, prejudices, thoughts, fears, and convictions regarding any given topic. Conversely, opinions serve as the linguistic equivalent of attitudes (Thurstone, 1928, p. 33). The next sections cover three different question types: open-ended questions, closed-ended questions, and contingency questions.

• Both closed-ended and open-ended inquiries

Either open-ended or closed-ended questions may be included in a questionnaire. In a closed-ended question, respondents are presented with a list of potential answers and asked to choose the one that best captures their thoughts. For example:-

A graduate without skill deserves equal salary than those who possess skill but are not graduate?

- Strongly agree
- Agree
- Indifferent
- Disagree
- Strongly disagree

The complete responses of the respondents are recorded in response to open-ended questions, which do not have any type of predetermined response. For instance, an open-ended question typically used in questionnaires intended to examine public opinion is "How can the industry provide equal salary to graduates without skill and skilled without graduation?" An open-ended question has the advantage of letting the respondent express themselves freely, spontaneously, and in their own language without being pressured to give a predetermined response.

4.3.2 Contingency Question

When a question only pertains to a portion of the sample, it is referred to as a contingency question. A contingency question is a closed-ended enquiry that only applies to a particular subgroup of respondents. Whether a question is pertinent to this subgroup depends on how respondents responded to the prior question. For instance, the question "Are you aware of the Right to Education Act?" came first in a research survey. In that case, the follow-up query might be, "If yes, what do you know about it?" The contingency question will only be relevant to respondents who checked the "Yes" box next to the previous question.

4.3.3 Questions to be Avoided

- **Leading Questions:** Leading questions are questions that give the impression to the respondent that the researcher anticipates a particular response. The phrase "How do you feel about your work?" could be used to elicit a generic response to the query about job satisfaction. If asked in the leading form, the identical query might be posed as, "Are you satisfied with your work?" Respondents are more likely to select yes in response to this question than no. By responding "yes," they are confirming the meaning of the inquiry and not refuting the researcher.
- **Threatening Questions:** Threatening questions usually allude to illegal or socially abnormal behaviour that is not mentioned in public. For instance, inquiries that ask about the respondent's

drinking and gambling habits. Such questions, which the respondent may find uncomfortable and hence difficult to answer, are frequently necessary to include in research. Though it is recommended to avoid threatening questions as much as possible, it is encouraged to use a long introduction to the topic rather than asking brief questions using an open-ended rather than a closed-ended format in situations where it is important to include such questions.

- **Double-barreled Questions:** When two or more than two questions are included in one question it is termed as double-barreled questions. The following question, included in a survey, is an example: “Women should stay at home and take care of their children and other family members and stop taking up employment outside.”

- Agree
- Depends
- Disagree

The above statement includes two separate questions that are joined by the conjunction 'and'. Such questions might confuse respondents who agree with one aspect of the question and not with the other.

5.0 Advantages Of Collecting Data From Primary Sources

5.1 Interview: A lot of people think that asking people directly about their actions during an interview is the best method to understand why they behave in that way.

In an interview, the questions are carefully crafted to elicit the right responses.

Using group interviews as a source for hypotheses is preferable.

The main advantages of doing phone interviews are their low cost, speedy completion, and typically high response rates. It is possible to carry out big surveys utilising telephone interviews in a matter of hours.

5.2 Observation: Collecting data through observation helps during communication hurdles. For instance observation becomes critical for anthropologist while studying different tribes.

It might also be used to gather additional data that would aid in the interpretation of results from other techniques.

Unstructured observations are flexible as it allows for changes when such reasons compel.

Participant observation provides researcher the most empirical way of collecting data.

5.3 Questionnaire: Factual questions make it easier for respondent to answer accurately in less time.

Factual data is easy to categorise and analyse.

Opinion based questions provide supplementary information.

Elaborated opinions with detailed explanations provide more support to research outcomes.

6.0 Critical Analysis Of Primary Data Collection

6.1 Interview:

- With structured interviews, the responders are still under part of your control. The interviewee is given several options, which regulates and controls the responses.
- Unstructured interviews lack regulation and control, which might result in the collection of extraneous data and divergent research.
- Group interviews typically do not result in systematic information on every topic addressed in a personal interview from every member of the group.
- The individuals who submitted information over the phone are not typical of the general public.

6.2 Observation

- Sometimes, people do not cooperate with the researcher and show their unwillingness to respond to the questions of the researcher.
- Structured Observation is possible only when the problem is well formulated.
- Structured observation plays a limited role in exploratory observation.
- Unstructured observations may puzzle researcher and further complicate the research outcome.

6.3 Questionnaire

- Data from various sources was not gathered through factual inquiries. For instance, it can be

challenging to determine precise income from agriculturally related operations.

- To prevent these issues, a researcher must have a precise definition of the topic and express it in the same way.
- Opinion-based questions are inevitably biased since respondents' perceptions, emotions, and experiences have an impact on them.
- When compared to factual questions, responses to opinion questions are more responsive to changes in wording, emphasis, and order.

7.0 Conclusion

In social research, there are two main sources of data. The primary source of information is how individuals respond to questions. Secondary sources of data, often known as "available data sources," include documents, historical records, diaries, biographies, statistical records, etc.

When gathering data for social research, interviews have been a popular tool for gathering information about social background, opinion, attitudes, and changes in relationships. Different categories have been used to classify interviews, For instance, one-on-one or group interviews. The format of the interview, such as structured or unstructured, is still another reason for categorising interviews.

The fundamental approach to learning about the social issues under study is observation. There are a lot of circumstances where this approach is thought to be the best choice. Observations support a range of scientific goals. Different kinds of observations exist. Making distinctions based on the level of structure is one technique to distinguish between various observation types. As a result, there are two observational methods available: (I) structured and (II) unstructured. The researcher's function is how classifications are also made in another way. Based on this, observation techniques can be divided into two categories: participant observation and non-participant observation.

Another widely used method of data collection is questionnaire. It enlists questions, which translate the research objectives into specific questions. One of the major issues involved in formulating the question is its content.

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