

DATA COLLECTION INSTRUMENTS: PREPARATION OF INTERVIEW SCHEDULE AND PROCEDURE OF INTERVIEWING

Data collection is a technique of gathering information on some pre-selected factors from target respondents/entities which enables a researcher to evaluate and answer relevant questions. For most instances, data collection is the primary and most important step for research. However, the approach of data collection is different depending on the nature of the different fields of study. The commonly used methods for collection of data are as follows:

- Interview schedule
- (Mailed) Questionnaire
- Checklist
- Group Interview
- Case Study
- Systematic Observation Procedure
- Systematic Studies of Available Records
- Tape Recorded Interview

Interview Schedule:

The interview schedule is the form containing a set of questions which are asked to the respondents by an interviewer in a face to face situation. The schedule is filled in by the interviewer who is assigned for this purpose. The interviewer along with the schedule goes to the respondents, put to them the questions from the schedule in the order as listed and record the replies in the space provided. At the beginning of the interview, the interviewer explains the aims and objectives of the study and removes the difficulty which the respondents or interviewees face such as understand a particular question or difficult terms.

Advantages:

1. The interviewer has an opportunity to observe and study the situations and conditions. He talks with respondents and gets their reactions to practice and programmes.
2. It usually yields high return percentage.
3. Interviewer can explain questions to respondents.
4. It is easy to get complete answers. This contributes to statistical accuracy, reliability and validity.

Limitations:

1. Transportation costs and time may be barrier to make personal interview method successful.
2. Unless the interviewer are properly trained and supervised, the data recorded may be inaccurate, incomplete and biased.

(Mailed) Questionnaire:

A questionnaire is a set of questions printed or types in a definite order on a form. When the questionnaire is sent by mail to the respondents who fill it out and return it by mail also, it is termed as mailed questionnaire. This method is quite popular particularly in case of big inquiries. It is being adopted by private individuals, research workers and public organizations.

Advantages:

1. It is easy, quick and relatively inexpensive method of obtaining data, particularly the electronic form of questionnaire.
2. It can reach a wide geographic distribution of people provided addresses are known.
3. It is useful in reaching a relatively homogenous, fairly well educated group.
4. It can be free of any interviewer bias and answers are the own words of the respondents.
5. Respondents who are not easily approachable can be reached conveniently.

Limitations:

1. It is difficult to use long and big questionnaire, i.e. it must be short.
2. It is difficult to get detailed qualitative answers or to know precisely what the respondents mean.
3. There is little control over the completeness of the answers.
4. The respondents/interviewees must be educated. For electronic form of questionnaire (online), the respondents must have the access to the Internet.
5. Those who reply may not be typical member of the list.
6. It is difficult to get quick reply and also to follow up.

Checklist:

Checklist is the instrument which is often used in order to enable people to make one or more choices from a list of statements regarding a problem or an idea. Usually a statement of the problem is made followed by a list of several possible answers from which a choice is made. The presence or absence of the item may be indicated by checking yes or no, or the type or number of items may be indicated by inserting the appropriate word or number. Respondents answer the questions and hand them back to the person conducting the interview.

Advantages:

1. Cost is little and easy to administer.
2. Easy to complete.
3. Reminds on items which the respondents may not think, i.e. reduces respondents' cognitive load.
4. Quick way of surveying the group.

Limitations:

1. Cover limited field of study.
2. Little scope of own expression of the respondents because of limitation of choices.
3. The order of arrangements of items in the list may influence replies.

Group Interview:

Group interview means bringing people together in a group and asking them to fill in individual schedule supplied to them. Each person in the group is asked to record his or her answer to the question when it is read. In this procedure the person collecting data explaining the schedule to the group, and gives respondents an opportunity for questions or clarification.

Advantages:

1. Data are easily and readily obtained.
2. Relatively inexpensive and quicker approach as it is easier to administer and required less traveling.

Limitations:

1. Respondents may communicate to each other.
2. The replies may be influenced by people of strong opinions in the group.

Case Study:

The case study method is a very popular form of qualitative analysis and involves a careful and complete observation of a social unit which might be a person, a family, an institution, a cultural group, a farmer or farming community. It is a study in-depth rather than breadth. It places more emphasis on the full analysis of a limited number of conditions and their interrelations. Thus, case study is essentially all intensive investigation of the particular unit under consideration.

Advantages:

1. They present the situation, reveal importance of human factors in the organization and show the difficulty as they evolve.
2. They may show how decisions are made.
3. They show the importance of timings.
4. They show the continuity of development of the project or activity.

Limitation:

1. Case study aspect is based on only one case. Therefore, generalizability is limited.
2. Case study provides data on only one or two aspects of problem, and not on all relevant.
3. It is time consuming, and the investigator requires training and experience in observing, recording and writing.
4. It is based on several assumptions which may not be very realistic at times and as such, the usefulness of case data is often subject of doubt.

Systematic Observation Procedure:

This method is used during farm or home visit. Observation of practices have been recommended for the area observed and recorded in some systematic manner.

Advantages:

1. The extension worker may able to know the recommended practices.
2. He can observe to what extent the recommended practices are adopted.
3. He gets first-hand information.
4. Progress of extension work can be seen.

Limitations:

1. Self-value and attribute of the observer may play different role in observation.
2. It is costly when much information is to be collected.
3. Impractical when to collect more information.
4. It is difficult to separate observation from interpretation.

Systematic Study of Available Records:

Various club, projects, other farm and home development records are common sources for this kind of information. The analysis of records and reports involves much more than recording, tabulation and reporting.

Advantages:

1. Data can be obtained directly from the records without going through a field survey or other type of surveying.
2. This may take time of just one person.
3. They are reliable if the records have been carefully kept.
4. They provide information from the past which could not be collected today.

Limitations:

1. Records may be carelessly kept and may be incomplete.
2. Often there is no opportunity to make checks on accuracy of entries.
3. Records may lack comparability. Therefore, it may be difficult to analyze.

Tape Recorded Interview, Discussion, etc.:

Sometimes the interviews or discussions are recorded through tape is called tape recorded interview.

Advantages:

1. Quick and easy to take the interview.
2. Possible to collect information from where it is difficult use written form.

Limitations:

1. Tape may be damaged at any time so that entire information may be lost.
2. Initial cost is high.

TYPES QUESTIONNAIRE:

Questionnaire used in collecting data may be classified into two categories: structured and non-structured.

a) Structured questionnaire:

Structured questionnaires are those in which there are definite, concrete and pre-organized questions that are prepared in advance and not constructed on the spot during the interview. The form of questions may be either closed (i.e. categorical, checklist) or open (i.e. invites free response).

b) Non- structured questionnaire:

Non-structured questionnaires consist of definite subject-matter areas, the coverage of which is required during the interview, but the interviewer is largely free to arrange the form and the timing of inquire. Flexibility is the main characteristics of this questionnaire.

FORMS OF QUESTIONNAIRE:

A researcher may cast questions in a closed, an open or a pictorial form, and may utilize one type exclusively or a combination of them when structuring his/her questionnaire. Each type has its merits and limitations. The person preparing a questionnaire must decide which type is more likely to supply the information he wants.

a) Closed form:

A closed form question usually refers to a question which allows choice of possible answers. To indicate his reply, a respondent marks “yes” or “no”, “checks”, “circles” or series of statements in order of their importance (1, 2, 3.....). The following example illustrates the closed form item:

Question: What is your educational level?

I don't know reading and writing ()

I can sign only ()

I read up to class ()

Others (specify) ()

Advantages:

1. For certain type of questionnaire, the closed form questionnaire is entirely satisfactory.
2. It is easy to fill out.
3. It takes little time.
4. It keeps the respondent on the subject.
5. It is relatively objective.
6. It is fairly easy to tabulate and analyze.

Limitations:

1. Sometimes closed form questionnaires fail to reveal the respondent's motive (why he answers as he does).
2. Do not always yield information of sufficient scope and depth.
3. It may not discriminate between the fine shades of meaning.

b) Open form:

The open form questionnaire permits the respondents to answer freely and fully in their own words and their own frame of reference. Example:

Question: What are the major problems you are usually facing in adopting BR-28 rice?

Advantages:

1. It provides for greater depth of response.
2. The respondents get the opportunity to reveal their actual motives or attitudes and to specify the background condition upon which their answers are based.

Limitations:

1. When the respondents have no clues to guide their thinking, they may unintentionally omit important information.
2. If the respondents are not sufficient literate and willing to give considerable time and thought to actions, they cannot provide useful data.
3. Since the responses are non-directed, problem of classification and analysis really becomes very difficult.
4. Complex and more expensive than that of closed form questionnaires.

c) Pictorial form:

In many instances, questionnaires are presented to the respondents with drawing and photographs rather written statements, and the directions are given orally.

Advantages:

Pictorial-form is particularly suitable for gather data from children and adults with limited reading and writing ability.

Limitations:

1. It can only be used in situations involving distinguishable and understandable visual characteristics.
2. They are difficult to standardize, particularly when the picture are photographs of human-beings.

A Good Questionnaire: Characteristics

1. A good questionnaire deals with a significant and interesting topic.
2. It seeks only primary data i.e. information which cannot be obtained from other available sources.
3. It is as short as possible, only long enough to get the required data.
4. It is attractive in appearance, neatly arranged and clearly printed.
5. Directions are clear and complete, and important terms are defined.
6. The questions are consistent with objectives.
7. The questions are systematically arranged.
8. The questions are worded as simply and clearly as possible.
9. The questions are unambiguous and easy to understand.
10. Annoying and embarrassing questions are avoided.
11. The questions are presented in a good psychological order.
12. A good questionnaire provides for easy and appropriate tabulation and interpretation of data.

Points to be Considered in Preparing Questionnaire:

In order to prepare questionnaire the following points should be taken into consideration.

- Before preparing a questionnaire, an investigator should properly select the objectives of the study.
- The investigator should prepare a set of questions and ask himself the following points:
 - ✓ Are the questions related directly to the purpose of the study?
 - ✓ Can there be any doubt about the definition of any word in the question? Will every respondent understand each word as the investigator does?
 - ✓ Are the questions stated in clear, simple, short and concise language?
 - ✓ Has the investigator avoided “double barreled” questions i.e. questions that have more than one meaning?
 - ✓ Have double negatives been avoided?
 - ✓ Has a “check”, “yes” and “no” answers been used whenever advisable?
 - ✓ Is there an opportunity for the respondent to indicate that the question is not applicable to him or her?
- In preparing a questionnaire due attention should be given on the sequence of questions. The question should be placed in the logical order.
- For physical arrangement of the questionnaire, the following suggestions are to be given due importance:
 - ✓ Each item of the questionnaire should be numbered consecutively.
 - ✓ Each item will have to be clearly distinguished for tabulation purpose.
 - ✓ Adequate space should be kept to facilitate answer to each question.
- The questionnaire should have a good appearance. This can be accomplished by good paper, large print, wide space and good arrangements.

Meaning of Interview:

The interview may be considered as a systematic method by which one person secures information from other person/persons in a face-to-face setting. Interviewing is aimed at collecting data related to specific objective(s) in a situation where an investigator systematically approaches an individual/group of individuals for securing specific information. The interview may be individual or group. It involves the interviewer asking a series of questions to a respondent or respondents on specific issues and recording the answers of the respondent in an interview schedule.

Points to be Considered before Interviewing:

Before interviewing, an investigator should have the following:

- Clear objective;
- Well-constructed interview schedule with each question well known to him;
- Acquaintance with the locale of investigation and ethnic knowledge of people;
- Local extension agents/local leaders who are supposed to introduce the investigator to heads of the farm families in the place of interview;
- List of farm/rural families of the area of investigation;
- Statistics related to agriculture and present socio-economic situation; and
- Appointments in scheduled data and time and place of interview.

Steps in Interviewing:

The process of interviewing includes the following steps:

- Maintaining a neat personal appearance
- Establishing rapport
- Securing information
- Closing the interview
- Editing the schedule

a) Maintaining a neat personal appearance:

The interviewer should be a neat person and pleasant appearing. He should dress appropriately for the season and the environment in which he will work.

b) Establishing rapport:

The next procedure to be followed is the establishment of felling of trust and confidence of the interviewer. Sincere friendliness on the part of the interviewer is the first step in the direction of achieving this objective. If proper rapport is established, the interviewer can get such information which people are normally reluctant to express, such as one's annual income, farm size, etc.

c) Securing information:

Familiarity with questions helps to make a smooth interview. Under no circumstances, the interviewer should change the wording of the questions. Replies must be recorded without appearing to agree or disagree. Reactions should be watched from the respondents, marginal notes should be made about the observations.

d) Closing the interview:

A pleasant impression should be left with the respondent. He should be left with a feeling of having been helpful and that cooperation has been appreciated. Always some expression of appreciation should be extended at the end of the interview.

e) Editing the schedule:

Careless editing by the interviewer can bias the results of the entire study. One should not fail to go over the schedule before leaving the respondent. In this way, one can clear up discrepancies and correct them.

One should be sure that all identifying information is entered. Observations should be written down and fragmentary sentence should be completed, and sketchy remarks should be expanded. Marginal comments should be made to explain apparently inconsistent or unusual entries. The schedule should be signed so that others may know whom to contact for further clarification during tabulation.