

**Module 3 Part 5 Questionnaire Design**  
**Dr Josheena Jose, Assistant Professor, PG Department of**  
**Commerce Christ College (Autonomous) Irinjalakuda**

	<b>Module 3 Part 5 Questionnaire Design</b>	<b>Page No</b>
<b>3.5.1</b>	<b>Questionnaire Design.</b>	<b>2</b>
<b>3.5.2</b>	<b>Steps in questionnaire design</b>	<b>3-5</b>
<b>3.5.3</b>	<b>Response format</b>	<b>6-11</b>
<b>3.5.4</b>	<b>Formulating effective questions</b>	<b>11-17</b>
<b>3.5.5</b>	<b>Questionnaire Sequence</b>	<b>18-20</b>
<b>3.5.6</b>	<b>Questionnaire Pre-testing, Revision and Final Draft</b>	<b>20-21</b>
<b>3.5.7</b>	<b>Schedule</b>	<b>21-33</b>

**Module 3 Part 5 Questionnaire Design**  
**Dr Josheena Jose, Assistant Professor, PG Department of**  
**Commerce Christ College (Autonomous) Irinjalakuda**

### **3.5.1 Questionnaire Design.**

The questionnaire is a structured technique for collecting primary data in a survey. It was first developed by the Statistical Society of London in 1838 and has been in continuous use ever since. Questionnaires are commonly used to gather first-hand information from a large audience, in the form of a survey. There are different types of questionnaires in practice and the type of questionnaire to be used usually depends on the purpose of the survey and the type of data that has to be collected. Questionnaires are highly practical and can be carried out by any number of people, and the results can be quickly quantified as well. Over the years, this form of conducting research has also been proven to be more scientifically accurate, as compared to other quantitative research tools. It is a series of written or verbal questions for which the respondent provides answers. A well-designed questionnaire motivates the respondent to provide complete and accurate information. A questionnaire serves four functions—enables data collection from respondents, lends a structure to interviews, provides a standard means for writing down answers and help in processing collected data. The fundamental principle for developing a sound questionnaire design it is that the respondent defines what you can do: the types of questions you can reasonably ask; the types of words you can reasonably use; the concepts you can explore; the methodology you can employ. The design is dependent on the researcher's decision to collect qualitative data for better understanding and generation of hypotheses on a subject (exploratory research), or quantitative data to test specific hypotheses.

**3.5.2 This chapter discusses the various steps in questionnaire design like:**

1. Preliminary decisions
2. Question content
3. Response format
4. Question wording
5. Questionnaire sequence
6. Questionnaire pre-test, revision and final draft

**Let us elaborate each of these aspects.**

### **3.5.2.1 Preliminary Decisions**

A researcher has to take many decisions before framing the actual questionnaire. These decisions relate to the information required, the target respondents and the choice of interviewing techniques.

#### **Required Information**

The researcher is expected to know and understand the survey's objectives before he or she can take further steps. In framing a questionnaire, the researcher must ensure that the questions are designed to draw information that will fulfill research objectives. Sometimes researchers end up designing questionnaires that study the peripheral issues related to a problem or an opportunity but fail to give insight into the actual problem. Such questionnaires will act as a drain on a company's resources and the data so collected may mislead the top management while making decisions.

To avoid such situations, a researcher should go through the secondary data and research studies that are similar to the current research. This helps in planning

**Module 3 Part 5 Questionnaire Design**  
**Dr Josheena Jose, Assistant Professor, PG Department of**  
**Commerce Christ College (Autonomous) Irinjalakuda**

current research based on existing research findings related to the topic under study. The researcher can also conduct informal interviews with the prospective target audience to understand the nature of the problem and the information that would help managers in solving a problem.

**✚ Target Respondents**

Before conducting the actual survey, the researcher must make sure of the target population for the survey. For example, in case of market research, a researcher has to decide whether to include both users and non-users of a product or service. This is a crucial step, as the sampling frame would be drawn after the target respondents are defined.

Defining the target respondents becomes vital as the task of developing a questionnaire that will be suitable to all cross-sectional groups of a diversified population

**✚ Interviewing Technique**

In developing a questionnaire, a lot depends on the choice of interviewing technique. The format and type of questions will be different for personal interviews, focus groups, telephonic interviews and mailed questionnaires. A questionnaire designed for direct interviewing cannot be used for a survey through mail. In personal interviews, the respondent should be clearly told the details and the form of answers the questions require. It is prudent for questionnaires to be brief and to the point in telephonic interviews. Mail survey questionnaires should give clear instructions about the type of details that are desired, as an interviewer does not mediate these interviews.

**3.5.2.2 Question Content**

A clear definition of the problem and the objectives framed thereafter, play a major

**Module 3 Part 5 Questionnaire Design**  
**Dr Josheena Jose, Assistant Professor, PG Department of**  
**Commerce Christ College (Autonomous) Irinjalakuda**

role in deciding the content of the questions. In other words, the general nature of the questions and the information they are supposed to elicit decide the question content. In this process, things become easier because there are some set standards that can be followed.

Irrespective of the type of research, a researcher has to find answers to five major questions while deciding the question content. They are

- I. What is the utility of the data collected?
- II. How effective is a question in producing the required data? III. Can the respondent answer the question accurately?
- IV. Is the respondent willing to answer the question accurately?
- V. What is the chance of the responses being influenced by external events?

**Contents of the covering letter**

It is essential that you write a covering letter with your mailed questionnaire. It should very briefly:

1. Introduce you and the institution you are representing;
2. Describe in two or three sentences the main objectives of the study;
3. Explain the relevance of the study;
4. Convey any general instructions;
5. Indicate that participation in the study is voluntary – if recipients do not want to respond to the questionnaire, they have the right not to;
6. Assure respondents of the anonymity of the information provided by them;
7. Provide a contact number in case they have any questions;

**Module 3 Part 5 Questionnaire Design**  
**Dr Josheena Jose, Assistant Professor, PG Department of**  
**Commerce Christ College (Autonomous) Irinjalakuda**

8. Give a return address for the questionnaire and a deadline for its return;
9. Thank them for their participation in the study.

### **3.5.3 Forms of question**

The form and wording of questions used in an interview or a questionnaire are extremely important in a research instrument as they have an effect on the type and quality of information obtained from a respondent. Not all question types are ideal in every situation. That's why it's important to understand the type of questionnaire you're creating first. With that information, it becomes easier to choose the right question types.

#### **Open ended questions**

As the name implies, these questions are open for the respondent to answer with more freedom. Instead of presenting a series of answers choices, the respondent writes as much as little as they want. This is ideal for exploratory questionnaires which collect qualitative data. These questions are not based on pre-determined responses, giving respondents an opportunity to express what they feel is right, and often provide real, perceptual, and at times, startling proposals. Open-ended questions placed at the end of a questionnaire tend to draw accurate feedback and suggestions from respondents as well.

#### **Advantages and disadvantages of open-ended questions**

Open-ended questions provide in-depth information if used in an interview by an experienced interviewer. In a questionnaire, open-ended questions can provide a wealth of information provided respondents feel comfortable about expressing their opinions and are fluent in the language used. On the other hand, analysis of open-

**Module 3 Part 5 Questionnaire Design**  
**Dr Josheena Jose, Assistant Professor, PG Department of**  
**Commerce Christ College (Autonomous) Irinjalakuda**

ended questions is more difficult. The researcher usually needs to go through another process – content analysis – in order to classify the data.

In a questionnaire, open-ended questions provide respondents with the opportunity to express themselves freely, resulting in a greater variety of information. Thus respondents are not ‘conditioned’ by having to select answers from a list. The disadvantage of free choice is that, in a questionnaire, some respondents may not be able to express themselves, and so information can be lost.

As open-ended questions allow respondents to express themselves freely, they virtually eliminate the possibility of investigator bias (investigator bias is introduced through the response pattern presented to respondents). On the other hand, there is a greater chance of interviewer bias in open-ended questions.


### **Questions in Closed Ended Format**

Questions which have multiple options as answers and allow respondents to select a single option from amongst them are called closed-format or closed-ended questions. This type of questionnaire is especially useful when conducting preliminary analysis. As a fixed answer set is provided, these are ideal for calculation of statistical information and percentages of various types. Closed-ended questions help to arrive at opinions about a product or service, and sometimes, about a company, in a more efficient manner.

### **Types of Closed Format Questions**

Closed-ended questions which are aimed at collecting accurate statistical data can be classified into the following seven types:

**Module 3 Part 5 Questionnaire Design**  
**Dr Josheena Jose, Assistant Professor, PG Department of**  
**Commerce Christ College (Autonomous) Irinjalakuda**

 **Multiple choice questions**

This question presents the respondent with a list of answer options and they can select one or more. The challenge with multiple-choice questions is providing incomplete answer options.

For example, you may ask what industry do you work in and list out 5 of the most common industries. There are more than 5 industries in the world so some people won't be represented in this situation. A simple solution to this problem is adding an "other" option.

 **Leading Questions**


A question forcing the target audience to opt for a specific kind of answer is called a leading question. All answers for a leading question are almost similar. Leading questions are usually prepared to derive audience opinion within a set of limited words.

 **Importance Questions**

Questions which ask respondents to rate the importance of some specific matter on a rating scale of 1 to 5 are called importance questions. Such questions facilitate drawing what respondents consider significant - enabling vital business decision-making.

 **Scaled questions**

Scaled questions are common in questionnaires and are often used to judge the degree of a feeling. This can be used in both exploratory and standardized questionnaires because there are many different types of scaled questions such as:

 Rating scale

 Likert scale



**Module 3 Part 5 Questionnaire Design**  
**Dr Josheena Jose, Assistant Professor, PG Department of**  
**Commerce Christ College (Autonomous) Irinjalakuda**

✚ Semantic differential scale

✚ **Rating Scale Questions**

Questions that ask respondents to provide a rating on a specific matter on a scale of 1 to 10 or on a scale of "poor" to "good" are called rating scale questions. Normally, these questions have an even number of choices, so as to prevent respondents to choose a middle way out.

✚ **Likert Questions**

The degree to which respondents agree to a specific statement can be ascertained using Likert questions. Customers' feelings about a topic, product or service can be easily gauged by asking them these questions.

✚ **Bipolar or Semantic differential scale Questions**

Questions that have two answers with different levels of extremities, written at opposite ends of a scale, are called bipolar questions. Respondents have to mark their response anywhere between these two extremities, showing their opinion.

✚ **Dichotomous Questions**

Questions that make respondents answer with a simple "yes" or "no" are called dichotomous questions. These questions carry one disadvantage-there is no other way of analyzing the answer between a "yes" and "no". A middle perspective is not possible. It can also be something like agree/disagree or true/false. Use this when all you need is basic validation without going too deeply into the motivations.

**Other Types of Questionnaires**

**Module 3 Part 5 Questionnaire Design**  
**Dr Josheena Jose, Assistant Professor, PG Department of**  
**Commerce Christ College (Autonomous) Irinjalakuda**

Apart from the above-mentioned two broad classifications there are two more types which are rarely used in practice, namely; Mixed Questionnaire and Pictorial Questionnaire.

✚ **Mixed questionnaires** consist of closed as well as open-ended questions.

These are normally used in the field of social research

✚ **Pictorial questionnaire** on the other hand is used in promotion of interest to answer questions. These are mostly used as study material for children

**Advantages and disadvantages of closed questions**

One of the main disadvantages of closed questions is that the information obtained through them lacks depth and variety.

There is a greater possibility of investigator bias because the researcher may list only the response patterns that s/he is interested in or those that come to mind. Even if the category of 'other' is offered, most people will usually select from the given responses, and so the findings may still reflect researcher bias.

In a questionnaire, the given response pattern for a question could condition the thinking of respondents, and so the answers provided may not truly reflect respondents' opinions. Rather, they may reflect the extent of agreement or disagreement with the researcher's opinion or analysis of a situation.

The ease of answering a ready-made list of responses may create a tendency among some respondents and interviewers to tick a category or categories without thinking through the issue. Closed questions, because they provide 'ready-made' categories within which respondents reply to the questions asked by the researcher, help to ensure that the information needed by the researcher is obtained and the responses are also easier to analyze.

**Module 3 Part 5 Questionnaire Design**  
**Dr Josheena Jose, Assistant Professor, PG Department of**  
**Commerce Christ College (Autonomous) Irinjalakuda**

### **Questions to avoid in a questionnaire**

While you can ask almost anything in your questionnaire, it may not be a good idea to do so. Some questions may give you poor data while others may stop people from completing the questionnaire.

Here are a few question types to avoid.

#### Hypothetical questions

A hypothetical question asks a respondent what they would do, think, or feel about a situation that may happen in the future. It's asking people to talk about their future actions and behavior which we're notoriously bad at. This kind of question may give you data that can't be used or will skew your overall understanding of the topic.

#### Embarrassing or offensive

Even though questionnaires can be anonymous, it's not a good idea to embarrass or offend the respondent. It may lead to them dropping the questionnaire without completing it or giving you poor answers on purpose. Neither one is a good scenario.

#### Extreme positive/negative

You don't want to bias your respondents before they've had a chance to form their own opinion on a topic. If a question is presented as extremely positive or negative then it may create a bias that should always be avoided. In the end, your data will be skewed.

### **3.5.4 Formulating effective questions**

**The wording and tone of your questions** are important because the information and its quality largely depend upon these factors. It is therefore important to be careful

**Module 3 Part 5 Questionnaire Design**  
**Dr Josheena Jose, Assistant Professor, PG Department of**  
**Commerce Christ College (Autonomous) Irinjalakuda**

about the way you formulate questions. The following are some considerations to keep in mind when formulating questions:

**Always use simple and everyday language.** Your respondents may not be highly educated, and even if they are they still may not know some of the ‘simple’ technical jargon that you are used to. Particularly in a questionnaire, take extra care to use words that your respondents will understand as you will have no opportunity to explain questions to them. A pre-test should show you what is and what is not understood by your respondents.

**Do not use ambiguous questions.** An ambiguous question is one that contains more than one meaning and that can be interpreted differently by different respondents. This will result in different answers, making it difficult, if not impossible, to draw any valid conclusions from the information.

**Do not ask double-barreled questions.** A double-barreled question is a question within a question. The main problem with this type of question is that one does not know which particular question a respondent has answered. Some respondents may answer both parts of the question and others may answer only one of them.

**Do not ask leading questions.** A leading question is one which, by its contents, structure or wording, leads a respondent to answer in a certain direction. Such questions are judgmental and lead respondents to answer either positively or negatively.

**Module 3 Part 5 Questionnaire Design**  
**Dr Josheena Jose, Assistant Professor, PG Department of**  
**Commerce Christ College (Autonomous) Irinjalakuda**

**Do not ask questions that are based on presumptions.** In such questions the researcher assumes that respondents fit into a particular category and seeks information based upon that assumption.

**Constructing a research instrument in quantitative research**

The construction of a research instrument or tool is an extremely important aspect of a research project because anything you say by way of findings or conclusions is based upon the type of information you collect, and the data you collect is entirely dependent upon the questions that you ask of your respondents. The famous saying about computers – ‘garbage in, garbage out’ – is also applicable to data collection. The research tool provides the input to a study and therefore the quality and validity of the output, the findings, are solely dependent upon it.

In spite of its immense importance, to the author’s knowledge, no specific guidelines for beginners on how to construct a research tool exist. Students are left to learn for themselves under the guidance of their research supervisor. The guidelines suggested below outline a broad approach, especially for beginners. The underlying principle is to ensure the validity of your instrument by making sure that your questions relate to the objectives of your study. Therefore, clearly defined objectives play an extremely important role as each question in the instrument must stem from the objectives, research questions and/or hypotheses of the study. It is suggested that a beginner should adopt the following procedure:

**Step I** If you have not already done so, clearly define and individually list all the specific objectives, research questions or hypotheses, if any, to be tested.

**Step II** For each objective, research question or hypothesis, list all the associated questions that you want to answer through your study.

**Module 3 Part 5 Questionnaire Design**  
**Dr Josheena Jose, Assistant Professor, PG Department of**  
**Commerce Christ College (Autonomous) Irinjalakuda**

**Step III** Take each question that you identified in Step II and list the information required to answer it.

Step IV Formulate question(s) that you want to ask of your respondents to obtain the required information.

In the above process you may find that the same piece of information is required for a number of questions. In such a situation the question should be asked once only.

**Essentials of a good questionnaire**

1. To be successful, questionnaire should be comparatively short and simple i.e., the size of the questionnaire should be kept to the minimum.
2. Questions should proceed in logical sequence moving from easy to more difficult questions.
3. Personal and intimate questions should be left to the end. Technical terms and vague expressions capable of different interpretations should be avoided in a questionnaire.
4. Questions may be dichotomous (yes or no answers), multiple choice (alternative answers listed) or open-ended. The latter type of questions are often difficult to analyse and hence should be avoided in a questionnaire to the extent possible.
5. There should be some control questions in the questionnaire which indicate the reliability of the respondent.

**Module 3 Part 5 Questionnaire Design**  
**Dr Josheena Jose, Assistant Professor, PG Department of**  
**Commerce Christ College (Autonomous) Irinjalakuda**

### **Advantages of a questionnaire**

A questionnaire has several advantages:

1. **It is less expensive.** As you do not interview respondents, you save time, and human and financial resources. The use of a questionnaire, therefore, is comparatively convenient and inexpensive. Particularly when it is administered collectively to a study population, it is an extremely inexpensive method of data collection.

2. **Easy to analyze the results**

The majority of questionnaires are quantitative in nature which allows for quick analysis of the answers. This is even more important when you have a larger pool of respondents. With a survey tools, you can easily spot trends and derive insights from your questionnaire with our easy to use & understand reporting features.

3. **Respondents can remain anonymous**

As there is no face-to-face interaction between respondents and interviewer, this method provides greater anonymity. In some situations where sensitive questions are asked it helps to increase the likelihood of obtaining accurate information.

If respondents are unable to remain anonymous, they may not answer some of the questions truthfully. As long as you've done proper targeting and they're not answering for an incentive, it's ideal to leave the respondents anonymous. They'll be more comfortable and answer honestly and thoroughly.

4. **Can cover all aspects of a topic**

This is an overlooked aspect of questionnaires. With them, it's possible to ask 100 questions. Of course, we don't advise this because almost no one will finish an online questionnaire of that length. With that being said, you can ask as many questions and

**Module 3 Part 5 Questionnaire Design**  
**Dr Josheena Jose, Assistant Professor, PG Department of**  
**Commerce Christ College (Autonomous) Irinjalakuda**

solicit as much detail as you want. Play around with the number of questions you ask but try not to overdo it.

### **Disadvantages of a questionnaire**

Although a questionnaire has several disadvantages, it is important to note that not all data collection using this method has these disadvantages. The prevalence of a disadvantage depends on a number of factors, but you need to be aware of them to understand their possible bearing on the quality of the data. These are:

1. **Application is limited.** One main disadvantage is that application is limited to a study population that can read and write. It cannot be used on a population that is illiterate, very young, very old or handicapped.
2. **Response rate is low.** Questionnaires are notorious for their low response rates; that is, people fail to return them. If you plan to use a questionnaire, keep in mind that because not everyone will return their questionnaire, your sample size will in effect be reduced. The response rate depends upon a number of factors: the interest of the sample in the topic of the study; the layout and length of the questionnaire; the quality of the letter explaining the purpose and relevance of the study; and the methodology used to deliver the questionnaire. You should consider yourself lucky to obtain a 50 per cent response rate and sometimes it may be as low as 20 per cent. However, as mentioned, the response rate is not a problem when a questionnaire is administered in a collective situation.
3. **There is a self-selecting bias.** Not everyone who receives a questionnaire returns it, so there is a self-selecting bias. Those who return their questionnaire may have attitudes, attributes or motivations that are different from those who



**Module 3 Part 5 Questionnaire Design**  
**Dr Josheena Jose, Assistant Professor, PG Department of**  
**Commerce Christ College (Autonomous) Irinjalakuda**

do not. Hence, if the response rate is very low, the findings may not be representative of the total study population.

4. **Opportunity to clarify issues is lacking.** If, for any reason, respondents do not understand some questions, there is almost no opportunity for them to have the meaning clarified unless they get in touch with you – the researcher (which does not happen often). If different respondents interpret questions differently, this will affect the quality of the information provided.
5. **Spontaneous responses are not allowed** for: Mailed questionnaires are inappropriate when spontaneous responses are required, as a questionnaire gives respondents time to reflect before answering.

The response to a question may be influenced by the response to other questions. As respondents can read all the questions before answering (which usually happens), the way they answer a particular question may be affected by their knowledge of other questions.

6. **It is possible to consult others.** With mailed questionnaires respondents may consult other people before responding. In situations where an investigator wants to find out only the study population's opinions, this method may be inappropriate, though requesting respondents to express their own opinion may help.

A response cannot be supplemented with other information. An interview can sometimes be supplemented with information from other methods of data collection such as observation. However, a questionnaire lacks this advantage.

**Module 3 Part 5 Questionnaire Design**  
**Dr Josheena Jose, Assistant Professor, PG Department of**  
**Commerce Christ College (Autonomous) Irinjalakuda**

**7. Asking personal and sensitive questions**

In the social sciences, sometimes one needs to ask questions that are of a personal nature. Some respondents may find this offensive. It is important to be aware of this as it may affect the quality of information or even result in an interview being terminated or questionnaires not being returned. Researchers have used a number of approaches to deal with this problem but it is difficult to say which approach is best.

**3.5.5 Questionnaire Sequence**

The structure of a questionnaire is an important aspect in questionnaire design. The questionnaire structure is framed depending upon whether it is self-administered or the administration is facilitated by an interviewer. Questionnaire structure pertains to the proper sequencing for better and effective responses. The sequencing tends to drive the interview through a ‘funnel-shaped’ process, starting with general questions and progressing to more specific ones. The interviewer, before moving to sequential steps, gives a brief introduction about the survey’s basic purpose survey and client confidentiality. This sequencing is explained through the following steps:

- Lead-in questions
- Qualifying questions
- Warm-up questions
- Specifics questions
- Demographics questions

**Module 3 Part 5 Questionnaire Design**  
**Dr Josheena Jose, Assistant Professor, PG Department of**  
**Commerce Christ College (Autonomous) Irinjalakuda**

 **Lead-in Questions**

This is the introductory phase of the interview and consists of tactfully designed ice-breakers. These can prove crucial in gaining the participant's confidence and cooperation. The questions should be simple, non-threatening and not too personal at this stage. A good way to start the session is by asking a 'ringer or throw away' question or a dichotomous question with two responses. These questions measure the respondent's interest and willingness to respond. The questions can be about hot topics of the day, where responses are of little importance to the survey.

A typical lead-in question is given below.

Q It is often said that the economic condition in India is a by-product of the political situation. Do you agree with this?

A YES/NO

 **Qualifying Questions**

These are questions that slowly lead to the survey's objective. This stage is characterized by questions that evaluate the respondent and qualify him/her for further questioning. Depending on the responses, the interviewer directs the interview towards a relevant set of questions. Prior to this, it should be ensured that the interviewees are related to the survey in some meaningful terms.

A survey for estimating market potential for a new fluoride-based toothpaste brand should ask qualifying questions like the following.

Q Which type of toothpaste do you like?

A Fluoride Herbal Calcium

Depending upon the interviewee's response, the interviewer can further give

**Module 3 Part 5 Questionnaire Design**  
**Dr Josheena Jose, Assistant Professor, PG Department of**  
**Commerce Christ College (Autonomous) Irinjalakuda**

directions to the next questions.

 **Warm-Up Questions**

This stage plays on the respondent's mind by making him/her think of certain facts related to the survey questions. Questions like, 'When was the last time you bought toothpaste?'; 'Was it fluoride content or herbal?'; 'Looking back, can you recollect how many times you might have used fluoride toothpastes over the last 1 year?' tend to make the respondent think and recollect past experiences. A person who is straightaway asked such questions may not be interested in answering or providing details, but after a series of lead-in and qualifying questions, the resistance slowly decreases and gives way to cooperation.

 **Specific Questions**

This stage consists of questions that are specific to the research objectives. As such, they are asked of participants who show a favourable response or are end users of the product, in this case, fluoride toothpastes. These questions tend to estimate the usage pattern and influential factors in using fluoride content tooth-paste. These specific questions play a major role in data collection and analysis. After ensuring that enough rapport has been established, this section can probe to gain insight into sensitive issues.

 **Demographic Questions**

These are a necessary part of every survey. Responses to survey questions cannot be analyzed until they are sorted out according to the different characteristics pertaining to the study. This is especially true for surveys that analyze responses based on the demographic characteristics of respondents. These usually consist of a set of questions related to age, sex, location, occupation, etc. These questions are kept to

**Module 3 Part 5 Questionnaire Design**  
**Dr Josheena Jose, Assistant Professor, PG Department of**  
**Commerce Christ College (Autonomous) Irinjalakuda**

the end to avoid interviewee resistance and to prevent the interviewee's attention from being diverted.

### **3.5.6 Questionnaire Pre-testing, Revision and Final Draft**

Pre-testing refers to testing the questionnaire on a small sample of respondents selected on a convenient basis that is not too divergent from the actual respondents. The aim is to identify and eliminate flaws and problems. Pre-testing includes testing all aspects of the questionnaire starting from the question content to question sequence. This helps reveal incomprehensible meanings, wrong order of questions, leading questions and awkward responses. No matter what the final mode of administration is, pre-testing should be done by personal interviews. This will facilitate interviewers to observe respondents' reactions and attitudes, giving them a first-hand experience of the potential problems and the data that can be expected from a questionnaire.

The responses gathered from pre-testing are coded to facilitate analysis. Pre-testing enables the researcher to revise the questionnaire by identifying flaws and eliminating any ambiguous questions. It also helps researchers to verify if interviewers resort to proper sample selection procedures.

After the revision, the research instrument is ready for its final draft, which is to be used for the actual survey.

#### **Merits of Pre test of Questionnaire / schedule**

The investigator or researcher can find out what are the strengths and weakness of the questionnaire. That means which question are ought to be deleted and which more ought to be added.

**Module 3 Part 5 Questionnaire Design**  
**Dr Josheena Jose, Assistant Professor, PG Department of**  
**Commerce Christ College (Autonomous) Irinjalakuda**

1. An idea can be formed about the extent of the response likely to take place
2. It helps to improve the design and effectiveness of the questionnaire in terms of format, quality etc.
3. It helps to resolve many problems of the measurement. It will show how to develop proper lines of enquiry in a logical manner
4. It provides right estimate of the resources needed to complete the survey in terms of time, money, personnel and equipments.

**3.5.7 The schedule is** a proforma which contains a list of questions filled by the research workers or enumerators, specially appointed for the purpose of data collection. Enumerators go to the informants with the schedule, and ask them the questions from the set, in the sequence and record the replies in the space provided. There are certain situations, where the schedule is distributed to the respondents, and the enumerators assist them in answering the questions. Enumerators play a major role in the collection of data, through schedules. They explain the aims and objects of the research to the respondents and interpret the questions to them when required. This method is little expensive as the selection, appointment and training of the enumerators require a huge amount. It is used in case of extensive enquiries conducted by the government agencies, big organizations. Most common example of data collection through schedule is population census.

A **schedule** is a structure of a set of questions on a given topic which are asked by the interviewer or investigator personally. It contains direct questions as well as questions in tabular form. Schedule includes open-ended questions and close-ended questions.

**Module 3 Part 5 Questionnaire Design**  
**Dr Josheena Jose, Assistant Professor, PG Department of**  
**Commerce Christ College (Autonomous) Irinjalakuda**

Schedule is the tool or instrument used to collect data from the respondents while interview is conducted. Schedule contains questions, statements (on which opinions are elicited) and blank spaces/tables for filling up the respondents.

**The features of schedules are:**

- ✚ The schedule is presented by the interviewer. The questions are asked and the answers are noted down by him.
- ✚ The list of questions is a more formal document, it need not be attractive.
- ✚ The schedule can be used in a very narrow sphere of social research.

**The main purposes of schedule are as follows**

- ✚ To provide a standardized tool for observation or interview in order to attain objectivity,
- ✚ To act as memory reminder or tickler i.e., the schedule keeps the memory of the interviewer/ observer refreshed and keeps him reminded of the different aspects that are to be particularly observed, and
- ✚ To facilitate the work of tabulation and analysis.

**Advantages:**

1. It is a useful method in case the informants are illiterate.
2. The researcher will solve the non-response issue as the enumerators go to get the information directly.
3. In extensive studies, it is very useful and can get more reliable data.

**Disadvantages:**

1. It's a very expensive process.
2. It's a method that takes a lot of time.

**Module 3 Part 5 Questionnaire Design**  
**Dr Josheena Jose, Assistant Professor, PG Department of**  
**Commerce Christ College (Autonomous) Irinjalakuda**

3. Even in the 'presence of the researcher the respondents' may not respond to some personal questions.
4. Reliability depends on data collection honesty and dedication.

### **Types of Schedule**

There are several kinds of schedule. **Rating Schedules** is a schedule used to obtain opinions, preferences etc, respondents over statements on the phenomenon studied. The schedule consists of positive and negative statements of opinion on the phenomenon.

**Documents Schedules** are used to collect data/information from recorded evidences and/or case histories. Here the blanks, functional issues related blanks and the like to be filled up from records and documents are present. **Survey Schedules are like questionnaires.**

**Observation Schedules** are schedules used when observational method of data collection is used. Recording the activities and social situations of groups or persons.

**Interview schedules** are structured or unstructured used for collecting data when interview method of communication with the respondents is used.

### **Essentials of a Good Schedule**

A good schedule must have the following features

1. **Content:** Should cover questions or statements relating to all significant aspects of the study.
2. **Dis-sectional:** Should look into the problem analytically, dissecting every, major and significant components of the problem.



**Module 3 Part 5 Questionnaire Design**  
**Dr Josheena Jose, Assistant Professor, PG Department of**  
**Commerce Christ College (Autonomous) Irinjalakuda**

3. **Context:** Should suit the context in which it is applied. Different types of studies need different schedules.
4. **Criterion:** Should use sound logic in classifying respondents based opinions expressed.
5. **Construction:** Should be constructed in such a way that questions statements progress gradually and in order. Better it is sub-divided into parts, each part dealing with a certain sub topic of the issue studied. For each objective, a separate part may be devoted.
6. **Language:** Should be linguistically superbly designed. Clear and straight forward language be used.
7. **Reliable:** Should be reliable such that same results are obtained whenever the schedule is used when everything else remains same.
8. **Mechanical Aspects:** Paper used, margin space given, spacing, printing, size of letters, etc. should be normal.
9. **Size:** Should not too length nor too short. Should give fair coverage to the topic.
10. **Qualities to be Avoided:** Long, complex, personal, embarrassing, hypothetical issues, morality oriented, upsetting type and necessary questions must be avoided.

### **Procedure for Formulating a Schedule**

Study the different aspects of the problem. The problem under study should first of all be split up into various aspects. The determination of these aspects will depend upon clear understanding of the problem under study.

**Module 3 Part 5 Questionnaire Design**  
**Dr Josheena Jose, Assistant Professor, PG Department of**  
**Commerce Christ College (Autonomous) Irinjalakuda**

Sub-divide the problem to get necessary information. Each aspect has again to be broken up into a number of sub-parts. These sub-parts should be quite exhaustive to give a full and complete picture of-the aspect under study.

- ✚ **Class questions.** Care should be taken to see that the questions convey the exact sense. Respondents will be willing to supply information without any hesitation, bias or distortion of facts, if questions are exact and clear.
- ✚ **Serialization of Questions.** In order to obtain well-organised information, it is necessary that the questions should be presented to the respondents in a well-ordered serial. It has been experienced to various field studies that the change in the order of questions affects the answers adversely.
- ✚ **Testing the validity of schedule.** Whatever may be the degree of precaution taken, some slips are based to be left out and these can be located when the schedule is put into a reliability and validity test.
- ✚ **Division.** The schedule be divided into adequate number of divisions. Introductory part, instructional part, issues related parts, etc. are certain parts by which the schedule is divided into parts.
- ✚ **Appropriate form of questions.** Use appropriate forms of questions at appropriate places. Open ended, close ended, pictorial, Yes or No (Questions), multiple choice questions, etc. can be used.

### **Contents of Schedule**

The whole schedule may be divided into three parts according to the nature of contents: (I) Introductory part, (2) main schedule. and (3) instructions to the interviewer or observers.

(I) Introductory part-This part contains introductory information about the schedule, investigation and respondent. It is more or less common to all the schedules and is

**Module 3 Part 5 Questionnaire Design**  
**Dr Josheena Jose, Assistant Professor, PG Department of**  
**Commerce Christ College (Autonomous) Irinjalakuda**

called an identification data which deals with general information about the interviewee, e.g., his name, .address, age, sex, post held, education etc.

(2) Main schedule-After the preliminary part comes the main portion of the schedule. It is the most vital part and has to be prepared with great care. The schedule consists of questions as well as blank tables where information to be supplied by the interviewee has to be filled in.

(3) Instructions to interviewers-The schedule generally contain exhaustive instructions for the interviewers. Although they are personally explained and even practically trained in the work, still instructions in writing are necessary.

To sum up, accurate information and accurate response are the two essential conditions of a good schedule. Accurate communication is effected by proper wording of questions so as to produce desired sense without any ambiguity. Accurate response is said to have been achieved when replies contain the information sought for. The response is achieved by stimulating the respondents to fill the schedule. Besides, the physical structure of the schedule should be attractive; the questions asked or information sought should be adequate and relevant to the enquiry, so that final generalization may be based upon it. The information sought should not only be valid, it should also be capable of being tabulated and if possible being subjected to statistical analysis.

**The heart of any research design is collecting data.** There are two sources of collecting data-the primary and secondary. The primary data is collected mainly through questionnaire and interview schedule. The questionnaire is designed to collect data from large. Diverse and widely scattered groups of people. This is usually mailed to the respondents or is administered to a group of people at the same time by

**Module 3 Part 5 Questionnaire Design**  
**Dr Josheena Jose, Assistant Professor, PG Department of**  
**Commerce Christ College (Autonomous) Irinjalakuda**

giving them appropriate forms and collecting them later. The schedule is referred to as a form filled in during a personal interview in which interviewer as well as the respondent both are present and it contains a set of questions which are asked and filled in by an interviewer in a face to face situation. The two forms have much in common. Particularly the fact that in both the cases, the wording of the questions is the same for all the respondents. However, at the same time there are important differences between the two methods. In nutshell, both have their own advantages as well as disadvantages. The choice of a particular instrument of data collection will depend on the characteristics of the respondents as well as the field situation. Both of these can be classified on the basis of their degree of structuring: structured having fixed alternatives of replies; and unstructured having open-ended question. The essentials of a good questionnaire and schedule are clarity, brevity, unambiguity, reliability and communicability

### **Difference between Questionnaires and Schedules**

Both questionnaire and schedule are popularly used methods of collecting data in research surveys.

There is much resemblance in the nature of these two methods and this fact has made many people to remark that from a practical point of view, the two methods can be taken to be the same. But from the technical point of view there is difference between the two. The important points of difference are as under:

1. The questionnaire is generally sent through mail to informants to be answered as specified in a covering letter, but otherwise without further assistance from the

**Module 3 Part 5 Questionnaire Design**  
**Dr Josheena Jose, Assistant Professor, PG Department of**  
**Commerce Christ College (Autonomous) Irinjalakuda**

sender. The schedule is generally filled out by the research worker or the enumerator, who can interpret questions when necessary.

2. To collect data through questionnaire is relatively cheap and economical since we have to spend money only in preparing the questionnaire and in mailing the same to respondents.

Here no field staff required. To collect data through schedules is relatively more expensive since considerable amount of money has to be spent in appointing enumerators and in importing training to them. Money is also spent in preparing schedules.

3. Non-response is usually high in case of questionnaire as many people do not respond and many return the questionnaire without answering all questions. Bias due to non-response often remains indeterminate. As against this, non-response is generally very low in case of schedules because these are filled by enumerators who are able to get answers to all questions. But there remains the danger of interviewer bias and cheating.

4. In case of questionnaire, it is not always clear as to who replies, but in case of schedule the identity of respondent is known.

5. The questionnaire method is likely to be very slow since many respondents do not return the questionnaire in time despite several reminders, but in case of schedules the information is collected well in time as they are filled in by enumerators.

6. Personal contact is generally not possible in case of the questionnaire method as questionnaires are sent to respondents by post who also in turn return the same by post.

**Module 3 Part 5 Questionnaire Design**  
**Dr Josheena Jose, Assistant Professor, PG Department of**  
**Commerce Christ College (Autonomous) Irinjalakuda**

But in case of schedules direct personal contact is established with respondents.

7. Questionnaire method can be used only when respondents are literate and cooperative, but in case of schedules the information can be gathered even when the respondents happen to be illiterate.

8. Wider and more representative distribution of sample is possible under the questionnaire method, but in respect of schedules there usually remains the difficulty in sending enumerators over a relatively wider area.

9. Risk of collecting incomplete and wrong information is relatively more under the questionnaire method, particularly when people are unable to understand questions properly. But in case of schedules, the information collected is generally complete and accurate as enumerators can remove the difficulties, if any, faced by respondents in correctly understanding the questions. As a result, the information collected through schedules is relatively more accurate than that obtained through questionnaires.

10. The success of questionnaire method lies more on the quality of the questionnaire itself, but in the case of schedules much depends upon the honesty and competence of enumerators.

11. In order to attract the attention of respondents, the physical appearance of questionnaire must be quite attractive, but this may not be so in case of schedules as they are to be filled in by enumerators and not by respondents.

12. Along with schedules, observation method can also be used but such a thing is not possible while collecting data through questionnaires.

**Module 3 Part 5 Questionnaire Design**  
**Dr Josheena Jose, Assistant Professor, PG Department of**  
**Commerce Christ College (Autonomous) Irinjalakuda**

<b>BASIS FOR COMPARISON</b>	<b>QUESTIONNAIRE</b>	<b>SCHEDULE</b>
Meaning	Questionnaire refers to a technique of data collection which consists of a series of written questions along with alternative answers.	Schedule is a formalized set of questions, statements and spaces for answers, provided to the enumerators who ask questions to the respondents and note down the answers.
Filled by	Respondents	Enumerators
Response Rate	Low	High
Coverage	Large	Comparatively small
Cost	Economical	Expensive
Respondent's identity	Not known	Known
Success relies on	Quality of the questionnaire	Honesty and competence of the enumerator.
Usage	Only when the people are literate and cooperative.	Used on both literate and illiterate people.

**Module 3 Part 5 Questionnaire Design**  
**Dr Josheena Jose, Assistant Professor, PG Department of**  
**Commerce Christ College (Autonomous) Irinjalakuda**

### **3.5.8 Summary**

A good questionnaire is imperative for good survey results. A questionnaire can be judged based on its relevance (no collection of unnecessary information) and accuracy (information should be reliable and valid). This chapter discussed the proper designing of a questionnaire for better results. As no established rules exist for such designing, the steps outlined in this chapter are taken from experiences accumulated through various studies. The first step in questionnaire designing is arriving at preliminary decisions regarding the issues of required information, the target respondents and the interview techniques to be adopted. This is necessary as the content, format, wording and sequencing of the questionnaire will depend on these basic factors. The next step is to determine the questionnaire content, so that it deals with identifying the need for data, the question's ability to yield data, the participant's ability to answer without generalizations and estimates and willingness to answer sensitive questions.

Knowing how each question should be phrased requires familiarity with the different types of questions. This leads to the next step of the questionnaire designing, that is questionnaire response format. This deals with issues of using open-ended or close-ended questions. Open-ended questions require the respondent to do most of the talking while close-ended questions restrict the respondent's responses to the available options. Each has its own advantages and disadvantages and is suited to different interviewing techniques.

Experiences from previous researches have helped establish general guidelines regarding questionnaire wording and sequence. It should be ensured that questions resort to shared vocabulary and adequate alternatives for better understanding and



**Module 3 Part 5 Questionnaire Design**  
**Dr Josheena Jose, Assistant Professor, PG Department of**  
**Commerce Christ College (Autonomous) Irinjalakuda**

response rates. The questions should be free of implicit assumptions, biased and loaded words. It should also be free of questions that are double-barreled and that would provoke the respondent to provide generalizations and estimated answers. Questionnaire sequencing is very important to elicit required information from the participant. The opening questions should arouse the respondent's interest in the survey. The specific and general questions should be followed in order. This means that the questions are sequenced in the following manner: lead-in, qualifying, warm-up, specific and demographic.

Last, the questionnaire should be pre-tested before administration for detecting flaws and revised with necessary corrections and deletions. This would lead to the final draft to be used in the actual survey.

&&&&&&&&&&&&&&&&