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# UNIT 11 QUESTIONNAIRE METHOD

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## 11.0 OBJECTIVES

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After reading this Unit, you will be able to:

- understand the meaning of questionnaire;
- state the methodology of its construction;
- learn the technique of preparing and pretesting the questionnaire and the precautions to be taken;
- elucidate the administration of questionnaire distribution and collection;
- identify advantages and limitations of questionnaire method; and
- comprehend the emerging trends in this field.

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## 11.1 INTRODUCTION

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In the field of Library and Information Science, survey research is heavily used in exploring the user information needs and use patterns. In order to strengthen the information resources and services in the libraries the researchers conduct surveys. These library surveys are attempted to gather data for investigations and to know the characteristics of users, their needs, etc. For detailed information on survey research please refer to Unit 3 of this course.

During recent times most of us have the experience of filling up a questionnaire, may be for some utility product, service, etc. This type of research is a market based research, which has a goal to enhance the quality and sale of product or service by getting the users response.

In survey research, the data is gathered by using the three types of methods namely, Observation, Interview and Questionnaire. In this Unit we will learn the technique of preparing questionnaire, its distribution, advantages, limitations and emerging trends in this area. In the next Unit you will learn about interviews as a methods of gathering data.

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## **11.2 QUESTIONNAIRE METHOD: DEFINITION**

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Questionnaire is a data collection instrument. The researchers most commonly use this method for collecting data. In order to gather data on a particular research topic, the researcher lists the questions to which s/he requires answers. The list of questions grouped in some order is either given personally, or sent / mailed to the target population.

In simple words, a questionnaire is a set of written questions for respondents to answer. These answers become primary data for investigation. According to Krishan Kumar (1992) “a questionnaire is a written document listing a series of questions pertaining to the problem under study, to which the investigator requires the answers”. Schvaneveldt (1985) defined questionnaire “ a data-gathering device that elicits from a respondent the answers or reactions to printed (pre-arranged) questions presented in a specific order.” Busha and Harter (1980) opined that questionnaires are often used in surveys as the primary data collection instruments.

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## **11.3 QUESTIONNAIRE CONSTRUCTION**

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While preparing a questionnaire, caution must be taken in selection of questions and variables so that the researcher could receive accurate answers that a researcher wants to explore. The purpose of this type of data gathering technique is to obtain valid and reliable information so that smooth investigation can be conducted and hypothesis can be tested. It is essential for the researcher to have a clear understanding of the problem under study. Hence, s/he needs to review the related literature before finalising the contents of the questionnaire.

The covering letter explains the identity of the researcher and the objectives of the research. It also includes the need for questionnaire. It should also tell the respondents what use will be made of the results and precisely what will happen to their answers. Hence, a covering letter, requesting the respondent for cooperation should explain the purpose of the questionnaire, and it must also ensure the confidentiality of their answers. This assurance will motivate the respondents to express their views freely.

Please find below a specimen copy of the covering letter given:

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*For Private Circulation Only*

### **Questionnaire**

#### **Impact of the Internet on Scholarly Communication of Social Scientists of Central Universities in Delhi**

Dear Respondent,

I am conducting research on the impact of Internet on scholarly communication of

social scientists. In this connection I have designed a questionnaire to get the responses of social scientists. I request you to spare some of your valuable time in filling up this questionnaire. The answers will be kept confidential and will be used for the purpose of research only.

Please find enclosed the questionnaire and a self addressed stamped envelope. You are requested to fill the questionnaire and post it within a week. Your cooperation in this regard will be highly appreciated.

Thanking you,

Yours sincerely,

(Name and address of the Researcher)

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Only those types of questions should be asked which the target population not only understands but also has the knowledge to answer them. Williams (1997) is of the opinion that researcher should conduct some fieldwork with the target group in the form of interview or observation work. This in turn assists the researcher in knowing the pulse of the sample and also their reaction to a particular section of questionnaire.

In the mailed questionnaire stamped self-addressed envelope should be provided. Reminders should be sent two to four weeks after posting the initial questionnaire.

### **Steps to be followed in Questionnaire Construction**

- 1) Determining the scope of the questionnaire;
- 2) Deciding the type of questions (close ended or open ended) to be asked;
- 3) Preparing the draft questionnaire;
- 4) Pretesting the questionnaire with a sample population;
- 5) Revising the questionnaire according to the suggestions received;
- 6) Distributing the questionnaire;
- 7) Sending reminders to the population under study;
- 8) Receiving the responses;
- 9) Analysing and interpreting the data received; and
- 10) Writing the report.

### **Length of the Questionnaire**

There is no prescribed length for a standard questionnaire. Researchers want to ask maximum number of questions in one questionnaire due to its cost effectiveness. There is a belief that if the questionnaire is too long its response rate drops. Length of the questionnaire depends on the topic of the research problem and size of the target population. The response rate may vary according to the type of clientele it approaches. But there are exceptions, which cannot be ruled out. Length of the questionnaire should also include cost and the willingness of the target population to answer. Hence, a general statement about the length of questionnaire cannot be made.

Questionnaire is not simply listing of relevant questions on a subject. The researcher must know what is the objective of the research undertaken and what type of questions to be asked. Questions should be such, that will elicit the required information.

**Guiding Principles to be followed for Questionnaire Construction**

- 1) It should be self-explanatory.
- 2) Questions should be restricted to close ended as opened ended questions receive vague and incomplete responses, which are difficult to interpret.
- 3) Less number of questions in the questionnaire helps in receiving high response rate.
- 4) Attractive layout of the questionnaire is necessary. It helps in getting completed questionnaires.
- 5) Proper instructions should be provided to the respondents in filling up the questionnaire.

**Self Check Exercise**

- 1) Explain why length of a questionnaire determines its response rate.
- 2) Why is covering letter necessary in a mailed questionnaire?

**Note:** i) Write your answers in the space given below.  
ii) Check your answers with the answers given at the end of the Unit.

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**11.3.1 Types of Questionnaires**

McKornam (1996) categorised questionnaires into three types: i) Mailed questionnaire ii) Group administered questionnaire iii) Personal contact questionnaire.

First of these three types is a mailed postal questionnaire. Williams (1997) calls this type self-completion questionnaire. This type has a predetermined set of questions. The respondents are provided with self-addressed stamped envelope to return it within two to four weeks after posting the questionnaire. This type of questionnaire contains a covering letter, which explains the purpose, and objectives of the research. It also requests the respondent for co-operation and assures them for confidentiality of their answers. This type of questionnaire costs less compared to other types. Respondents can take their own time in filling it. Its advantage is that it covers wider geographical area. The biggest disadvantage of mailed questionnaire is low response rate. While most of the questionnaires return after two weeks, some may even return after two months adding to the time and cost of data collection. Mailed questionnaire may be filled by someone other than the respondent. The answers may also be incomplete; that pose a serious problem at the time of analysis of data.

The second type is group-administered questionnaire. In this type the respondents gather at one place and complete the questionnaire. It is basically used by the teachers to gather data on any research query. In the third category, i.e., personal contact questionnaire the researcher and the respondents come together and questionnaire is filled in the presence of the former. It enables them to interact and clarify on areas that may need clarification.

**11.3.2 Types of Questions**

What type of questions should be included in the questionnaire for survey research? There is no unanimity on this issue. Each type has its own advantages and disadvantages. Numen (1997) has opined: “The crucial issue is not which form is best. Rather it is under which conditions a form is most appropriate”. The choice of questions also depends upon the topic of research, the target population, etc. Survey questions can be grouped into two categories i.e. open ended and close-ended questions.

**Open Ended Questions**

Open-ended questions give liberty to the respondents to express their views. They give tremendous freedom to the respondents to answer according to their interpretation. Given below is an example of an open-ended question.

**Example of Open Ended Questions:**

Can you suggest some ways to further improve the use of Internet in your research?

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**Advantages of Open Ended Questions**

- Unanticipated answers can be obtained from the respondents.
- Researcher can have real views of the respondents.
- Respondents can give their views in their own language reflecting creativity, self expression and richness of detail.
- Such answers reveal the logic of the respondents.

**Disadvantages of Open Ended Questions**

- Different answers may be received from the respondents on the same question.
- Responses can be vague, irrelevant or not to the point.
- Many interpretations of the same question may not lead to valuable analysis.
- Coding of the responses is not possible.
- Respondent needs more time to answer.

**Research Methods**

- More space is required for answers in the questionnaire.
- Respondents may use different terms for the same concept.

The responses to open ended questions are difficult to analyse but not impossible. It is possible that some of the answers may put forcibly into one of the categories. The researcher has to carefully study the responses and put them in different categories. However, it is very time consuming.

**Close Ended Questions**

Close-ended questions are best suited for large-scale surveys. They are easier and quicker for the respondents to answer as well as for the researcher to interpret . All the close-ended questions in the questionnaire may bring distorted results. This problem can be overcome by taking interviews, which can supplement the information on the close-ended questions.

There is another problem faced by the researcher while coining different choices for a particular question. If the choices are less the desired results cannot be achieved. If the choices are too many, it may confuse the participant and appropriate answers cannot be received.

Close-ended questions are provided with a list of acceptable options. A respondent has to pick and choose one or more of these options. The responses chosen by respondents may be best suited to them but they may not be the correct answers. There is a possibility that the list of alternative answers may not be sufficient for the respondent, hence, limiting his/her options. Given below is an example of a close-ended question.

**Example of Close Ended Question**

Given here are some reasons with regard to dissatisfaction with the current state of Internet based resources. Rank your answers by 1,2,3... etc. Rank no. 1 is for the highest.

- There is dearth of research resources on the net .....
- Instability of e- resources .....
- Difficulty in verifying the authenticity of information on the net .....
- The state of indexing and search engines not helpful .....
- Lack of standardisation .....

Paul Burton further classifies the close-ended questions into single choice or multiple-choice questions.

**Example**

Single choice question

Gender:            Male     Female

**Multiple-choice question**

Which of the following computing skills do you have?

Word processing     Internet browsing     E-mail ect.

Database  
searching

Power point

Any other please specify .....

### **Advantages of Close Ended Questions**

- Cost effective.
- Answers of the respondents can be compared.
- Easy for respondents to answers.
- Easy to code and tabulate.
- Performance of the respondents is more reliable
- Researcher can also reliably interpret the answers.
- Sensitive questions can be properly answered
- Less number of confused answers
- Less knowledgeable persons can also answer
- With limited number of answer options the possibility of getting enough responses to the options or categories may be useful for analysis.

### **Disadvantages of Close Ended Questions**

- Ideas of the researchers are imposed on the respondents.
- Less knowledgeable can also answer due to the availability of multiple choices.
- It is possible that respondents get frustrated by not getting the desirous options of their choice.
- Multiple choices from the researcher may be confusing for the respondents
- Answers can be misinterpreted or may not be correct

The disadvantages of both types of questions can be reduced if there is a judicious mix of both the categories in the questionnaire. Most of the questionnaires mix these two types. Open and close-ended types of questions are required to get facts or opinions of the respondents. Which type of the questions will be adopted will depend on various factors. For quantitative data the factual questions are required. In this case close-ended questions will suit the most. For qualitative data the open-ended questions are required though they are less easy to categories and less amenable to computer techniques.

### **Framing of Questions**

Before framing the questionnaire the researcher has to review the literature on the area to determine the type of questions to be asked. Flower (1987) has suggested four queries to be addressed before finalising a question in the questionnaire.

- 1) Is this a question that can be asked exactly the way it is written?
- 2) Is this a question that will mean the same thing to everyone?
- 3) Is this a question that people can answer?

- 4) Is this a question that people will be willing to answer, given the data collection procedure?

Terminology and jargon play a very important role in obtaining relevant responses. The researcher who is immersed in the subject so much sometimes forgets the target population's limited knowledge to understand the terms. Paul Burton suggests that to overcome the problem of use and relevance of technical terms, pretesting the questionnaire is essential. Pretesting may also help in eliminating ambiguity in the questions. For example, questions on frequency of use, visit to the library, etc. should not use the terms like 'Frequently', 'Often', and 'Occasionally' as the users may interpret these terms differently.

While drafting close ended questions the researcher has to decide the inclusion of negative answers, like not sure, not at all, do not know, etc. There is a possibility that the target population finds it easy to just strike these choices without trying out other options. If such a choice were not given the respondent would definitely choose some other option. Hence, it is advisable not to include negative options in the close-ended questions.

Sensitive questions should also be avoided. Precaution must be taken in choosing the controversial, emotional words. The choice of words should be such which increases willingness on part of the respondents to answer as well as increases the response rate for the questions. High technical jargon, confusing words, words with two meanings also cause hindrance.

### **Sequence of Questions**

Questions in the questionnaire should be arranged or grouped in logical sequences. Questions should be arranged in such a way that they do not scare the respondent but make him/her comfortable in answering/responding. Questionnaire should start with general but relevant questions and then move to the specific ones. It helps to set the logical flow in the questionnaire. Same type of questions may be put together in a group or section. For example, Question nos. 1 to 10 deal with the use of library sources and services. This type of instruction helps the respondents to understand the grouping of questions. If need arises relevance of questions should be explained to the respondents. One can divide the questionnaire into three parts namely, opening part, middle part and end part. In the opening part the questions are basically on the personal background of the respondents. These questions also come under the category of demographic information; for instance questions on age, gender, qualifications, institution, contribution in the field, specialization, etc. This category also involves questions pertaining to elementary information (relating to the topic of survey research), which helps in preparing the respondents' profile. The middle category involves questions directly concerning the topic of survey research. The questions here are also organised in smooth and logical flow, which accelerate the respondents' comfort level. The first question is related to the next one and so on. The questions on the first topic create the context within which the respondent moves on to the next without much hindrance. For example, if the users in a particular survey are asked about their awareness of library services or sources, the next question should be about the usage of library and services or sources, and this should be followed by the question on improvement of services or sources. Finally, the last portion of the questionnaire is basically loaded with open-ended questions on suggestions, improvement and their opinion on the research problem taken. The logical and proper organisation of questions helps in getting questionnaire completed.

### **Format and Layout of the Questionnaire**

The format of the questions and physical layout of the questionnaire should be made attractive, neat and easy to follow.

Questions should be properly numbered and enough space should be given to write answers and spacing between questions should also be adequate. This will automatically increase accuracy and completeness of questionnaire response rate. Questions whether mailed or distributed personally, should have attractive layout to motivate the respondents to answer. A polite covering letter with a sentence like thank you for your cooperation is a must. The questionnaire should leave the respondent with the feeling that he/she is very an important component in the research project; his/her participation in the research is very much appreciated.

Researcher has to decide the format of the questions. Only those questions to be preferred, which require answers in 'yes' 'or' no marking right (Ö) or wrong (C). The main objective is to get clear responses. Questions should be arranged in such a way that they save space. In some cases it is noticed that answer to one question will determine the answers to the subsequent questions. For example, if a respondent answer to question number 10 is 'no' then instructions may be given to the respondent to skip question number 11 and 12 and go to the question number 13.

Consistency of format should be maintained. Close-ended question commonly use boxes, brackets tick mark or cross to facilitate quick responses. However, the researcher needs to use one type to maintain uniformity and consistency.

### Examples of Question Format

#### *Horizontal type*

What is the level of satisfaction for Internet search results? (Tick mark (Ö) the answer)

High ——— Moderate ——— Low ———

#### *Vertical type*

What is the level of satisfaction for Internet search results?(Tick mark(Ö) the answer)

High ———

Moderate ———

Low ———

### Example of Matrix Question Format

How frequently do you find information accidentally on the web? Tick mark (Ö) the answers.

Methods	Frequently	Often	Sometime	Rarely	Never
Browsing websites	( )	( )	( )	( )	( )
Following hyperlinks	( )	( )	( )	( )	( )
Through cited works in the websites	( )	( )	( )	( )	( )
Any other method please specify————	( )	( )	( )	( )	( )

Given below examples of some response category choices. The choices are adapted from the source Neuman (1997).

**Research Methods**

Excellent, Good, Fair, Poor

Strongly Agree, Agree, Somewhat Agree, Somewhat Disagree, Disagree, Strongly Disagree

Too Much, Too Little, About Right

Better, Worse, About the Same

Regularly, Often, Seldom, Never

Always, Most of the Time, Rarely, Never

More Likely, Less Likely, No Difference

Very Interested, Interested, Not Interested

**Self Check Exercise**

3) Differentiate between open ended and close-ended questions.

- Note:** i) Write your answer in the space given below.
- ii) Check your answer with the answers given at the end of the Unit.

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**11.3.3 Use of Scales**

The questions should be designed in such a manner that the answers could be easily and quickly analysed. Some of the questions involve simple calculation of number and percentage. To tackle other complex issues, scaling techniques such as rating scale and rank order scale should be used. Analysis of responses to such questions should be done on the basis of weighted averages.

**Rating Scale**

A rating scale is a measuring instrument that requires the observer to assign the rated object to categories or continua that have numerals assigned to them. This is perhaps the most used measuring instrument as they are easy and quick to use. Time required for administering and measuring response is shorter than many other instruments. As a consequence, it is less expensive. However, they “lack validity due to their proneness to constant or biased error. If used with knowledge, skill and caution, a rating scale can prove to be a valuable measuring instrument.”(Krishan Kumar, 1992)

Rating scale can be of several types. The most usual is simply a form of precoded questions, e.g.,

Do you find the collection in your area of research in libraries you use adequate enough to meet your demands? Please tick mark (Ö) the appropriate columns.

Excellent? \_\_\_\_\_ Very Adequate? \_\_\_\_\_ Adequate? \_\_\_\_\_ Inadequate? \_\_\_\_\_ Poor? \_\_\_\_\_

The number of categories affects the dispersion of answers. A variation on the verbal expression scale may be used to elicit the extent of agreements with various statements. It is a normal practice to have a range of five answers, from positive to negative, with a neutral mid-point. The above responses may be assigned weights 5,4,3,2,1 at the stage of analysis of data. Numerical rating scale is easy to construct and use. The numbers can be used directly for the purpose of statistical analysis.

The procedure of Likert scale essentially involves allocating scores to statements for which the respondents can select a range of responses from 'very useful' to 'no use'. Example:

Do you consider conferences/seminars as useful sources of information? If yes, please indicate (tick mark (Ö)) how useful they have been for your research work?

Very useful? \_\_\_\_\_ Useful? \_\_\_\_\_ Satisfactory? \_\_\_\_\_ Little use? \_\_\_\_\_ No use? \_\_\_\_\_

In this example, choices that are most favourable to the use of conferences are assigned the greatest weights, and the least favourable responses are assigned the lowest weights. In this method the weighted index has been created by multiplying the number of respondents with the numerical value assigned to all the scales (e.g., very useful = 4, useful = 3, satisfactory = 2, little use = 1, and no use = 0) and then dividing the product by the total number of respondents. Next the averages of all the variables in different scales are calculated according to weighted index and are rearranged according to the rank order.

The responses are assigned weights like 5,4,3,2 and 1 or 4,3,2,1 and 0 in a 5-point scale and 3,2, and 1 in a 3-point scale. A three-point scale is developed for the level of difficulty. The following Tables 11.1,11.2,11.3 clarify the point.

**Table 11.1: Three-Point Scale**

Scale	Weights		
	3	2	1
Level of Difficulty	High	Moderate	Low

**Table 11. 2: Five-Point Scale**

Scale	Weights				
	4	3	2	1	0
Frequency	Frequently	Often	Sometimes	Rarely	Never
Dependence	Solely	Most of the time	Often	Some extent	Not at all
Degree	Very useful	Useful	Satisfactory	Little use	No use

**Table 11.3: Five-Point Scale**

Scale	Weights				
	5	4	3	2	1
Adequacy	Excellent	Very adequate	Adequate	Inadequate	Poor

**Rank Order Scale**

Another rating scale used in the questionnaires is rank order scale. It is a simple and most useful form of scale. Here the respondent ranks a list of items in order of preference. This method “is far more economical in time and effort, on the part of respondents as well as investigators, particularly when a large number of items is involved.”(Line, 1981). Example:

Which methods would you adopt to find out the sources of information the library possesses on your topic of research? Mark 1,2,3, etc., indicating your preferences (1 stands for first preferences and 2 for second, etc.) You will learn more about the measurement techniques in Unit –6 of MLIS-E2.

**Table 11.4: Rank Order Scale**

Methods	Order of Preference
Consult the Librarian	
Consult the Library Staff	
Consult Subject Bibliography	
Consult Subject Catalogue	
Searching the Shelves	

**Self Check Exercise**

4) What is a rating scale?

- Note:** i) Write your answer in the space given below.  
 ii) Check your answer with the answers given at the end of the Unit.

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**11.3.4 Precautions**

Preparation of a questionnaire is an art. It is an instrument for collecting data in survey research. If it is constructed properly half of the survey research is done. The researcher while constructing a questionnaire must take some of the precautions. Neuman (1997) has suggested the following points to be avoided while writing survey questions.

- Use of jargons, slang and abbreviations must be avoided.
- Ambiguity, confusion and vagueness have no place in a well-constructed questionnaire.
- Use of emotional language is not recommended; natural language makes the respondents more comfortable.

- Double-barreled questions should be avoided and each question should be asked for one specific aspect.
- Leading or loading questions as they make the respondent to choose one response over another need to be avoided.
- The capability of the respondents should always kept in mind while framing the questions otherwise it will lead to incomplete questions or questionnaires with poor responses.
- Questions leading to hypothetical situation need not be asked.
- Questions about future intentions are not desirable.
- No question should have double negatives.
- Overlapping or unbalanced response options need to be avoided.

Busha and Harter(1980) suggest the following precautions “The investigators have a professional responsibility:

- a) To analyse carefully and understand their research problems;
- b) To state their questions clearly
- c) To request only information that can be easily provided by respondents; and
- d) To place emphasis upon brevity and economy of participant effort, consistent with an adequate treatment of the subject.
- e) The objectives of questionnaire and the nature of needed data must be made clear.
- f) Respondent’s background, ability and knowledge must also be considered. If the respondent is not having adequate knowledge from it is difficult to obtain valid data.
- g) Willingness of the Respondent must be ensured, otherwise questionnaire will not be of any value.
- h) Care must be taken to do away with unneeded or irrelevant questions. This may discouraged the participants to answer the questions.
- i) With the help of pre test the biased questions may be identified.
- j) Ambiguous questions must be avoided.
- k) Questions that convey double meaning or pose two questions at once need to be enter eliminated or restated/reworded. These types of questions are called double-barreled questions.”

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## 11.4 PRETESTING OF QUESTIONNAIRE

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Survey research questionnaire act as an instrument for gathering data. It should be pre tested before putting it to actual use. Pre testing helps in further improving the questionnaire and works like a measuring yardstick, seeking perfection. Once the final questionnaire is printed then there is no room for corrections and improvement. If the researcher tries to make corrections it will be expensive as well as difficult. To pre test the questionnaire it has to be circulated to the sample population to receive useful

comments and the researcher can revise accordingly. Pre test also includes verbal communication with sample population about confusing questions, difficult questions, overlapping categories, etc. In this method the sample first fills up the questionnaire and then discusses with the researcher on the unintelligible questions. Formal pre testing is an invaluable part of questionnaire design process. It is a learning process for the researcher as well. Pre testing helps the researcher in recording, simplifying, transforming some of the questions. The process generally involves drafting the questionnaire and discussing it with colleagues and also circulating it among the small sample of the population for whom the questionnaire is designed. This helps in removing any problem relating to clarity, understanding of technical or professional terminology, order of questions, etc. Paul Burton (1990) states, pretesting may therefore go through a number of iterations, but this is a necessary part of questionnaire design. Pretesting, also called pilot survey, is very much desirable to finalize the questionnaire. Krishan Kumar (1992) has also suggested that a second pretest must be carried out with a revised questionnaire. He further observes that if some difficulties cropped up, another pretest might be required. Pretest also indicate the time required to fill up the questionnaire. It is a practice not to include the pretest sample to the actual population.

**Self Check Exercise**

5) Why pretesting is required before finalisation of questionnaire?

- Note:** i) Write your answer in the space given below.  
ii) Check your answer with the answers given at the end of the Unit.

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**11.5 DISTRIBUTION OF QUESTIONNAIRE**

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Questionnaire can be either distributed personally or through mail/ by e-mail/ Internet. Each of the system has its own merits and demerits.

**In Person**

Questionnaire can be distributed personally to the respondents. For example, if the researcher is surveying the use pattern of a particular library, then the questionnaire can be given at the time when users enter the library. If, by chance, the researcher does not find respondents there then it can be given to them personally at the place of work or at their residence.

Questionnaire can be sent by post to the target population with a self-addressed envelope stamped/pre-paid so that the respondents can return the filled questionnaire in time without hassle. Mailed questionnaire should also accompany a covering letter stating the objective of the survey, requesting the respondent to fill in time, etc.

In order to deliver the questionnaire to the respondents in person, a number of visits have to be made to their place of work, study or to the libraries, which they usually consulted. As it is not possible to contact each of the respondents some questionnaires may be left with the library staff or with the department where they work or study with the prior permission of the librarian / authorities.

### Through E-mail

Nowadays with the coming of the Internet connectivity: It is possible to circulate the questionnaire through e-mail. In this method the respondents who are having e-mail address as well as the Internet connectivity can receive and send the questionnaire as an e-mail attachment. This is a quick, easy and cost effective way of distribution and collection of questionnaire. It can easily extended or resent to the respondents any time at any place. E-mail based questionnaire is easy to construct, distribute and manage the results. Through this method online survey can be made available to any one with Internet connectivity.

The pre requisite of this method is the Internet connectivity and list of e-mail addresses of respondents.

### Web Questionnaire

There is another method of distribution and collection of questionnaire where the population is wide spread, covering state, country, etc and it is difficult for the researcher to reach or meet the target population. In this method the questionnaire is put on the website. Whosoever comes under the purview of the survey can fill the questionnaire and submit it giving required details. Web questionnaire is also having a time frame to complete/submit. This type of questionnaire also has a set of respondents, for example, if the survey is on the “Use of Search Engines by the Central University Teachers of India in the field of Indian Politics” only the Central University teachers of India should fill up the Questionnaire. It has the same layout, open as well as close ended questions. The close-ended questions can be filled up with the help of mouse click. For open-ended questions the respondents can simply type the answer and after completion the questionnaire can be submitted. A specimen of web questionnaire is given below for your information.

Fig. 11.1 : Snapshot of a Web Questionnaire

## Designing of Web –based Questionnaire

It should be designed in such a way that attracts the respondents to fill and submit it. Here also the length should be restricted to achieve high response rate. Only those questions should be included which are important and meaningful to research. It is advisable to use clear and specific wording for the questions. Reassurance should be given to the respondents regarding the privacy measures taken for their answers.

### Advantages and Disadvantages

The researcher gets answers from a wide spread population. With this size of the population the old data analysis methods may not suit. It is for the target population to access, fill and submit. The data may be accessed in short span of time. It is easy, fast and inexpensive. Researcher is free from the hassle of collecting properly filled questionnaires. For example, if a respondent fills a question wrongly, out side the defined range of answers or s/he misses some of the questions: the web-based questionnaire program can detect the error and direct the user to answer the particular question again and then submit. The data received from the web –based questionnaire is automatically validated.

Some of the disadvantages are like; that this type of questionnaire may not successfully attract a representative sample of the population of interest. The population is wide spread it is not possible for the researcher to personally contact them. Due to technical snag like server crash or browser freeze a lot of data may be lost. It is advisable to keep such questionnaire small. If it has number of pages the respondent has to submit the answers page wise. If a web-based questionnaire has six pages and after filling up five pages if server crashes in such a situation the data of those five pages already submitted may be captured. There is a possibility that after submitting the questionnaire an error message occurs in front of the screen and the respondent may not fill it again. To over come such situation it is necessary to test and retest the questionnaire. Alternatively the web program should have a very soft and humble error message, which prompts the respondent to return and fill it.

### Self Check Exercise

6) State the advantages of web-based questionnaire.

- Note:** i) Write your answer in the space given below.  
 ii) Check your answer with the answers given at the end of the Unit.

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## 11.6 RESPONSE RATE

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Response rate in survey research is very crucial. Different types of surveys have different response rates. For example, very high rate of response is required for census survey. If the researcher fails to get adequate response then there is a need for introspection.

The reasons may include: i) the target population at the top-level may not answer due to time constraint, ii) difficulty in approaching the scattered respondents, iii) respondents refuse to answer due to ignorance of the topic under research iv) lengthy questionnaire or the use of highly technical language discourages the respondents, v) if the questionnaire seeks more views from the respondents they get conscious of their privacy and may not like to reveal their opinion.

A researcher can increase the response rate to a point by contacting the respondents frequently, on the phone or by mail or by meeting them personally. The researcher may have to make repeated visits or may send soft reminder letters periodically persuading to return the completed questionnaire. If the questionnaire is short and simple it generates good response. Those respondents should be motivated periodically to fill up the questionnaire. Timing of the distribution is also important in getting responses. If teachers or students are given the questionnaire during vacations or weekends, it will generally yield higher response.

A polite reminder letter along with another copy of the questionnaire should follow two weeks after the specified date of return the questionnaire. Second copy is required because there is a possibility that the respondent has misplaced the questionnaire. Researcher should be polite and patient while distributing and reminding or receiving the questionnaire.

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## 11.7 ADVANTAGES AND LIMITATIONS OF QUESTIONNAIRE METHOD

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### Advantages of Questionnaire Method

- Easier and quicker to collect data. Through this method large amount of data can be generated in short span of time.
- Direct responses can be obtained.
- Information received is quantifiable. Quantitative as well as qualitative responses can be procured. Back ground information of the respondents, which is otherwise difficult to obtain, could be collected.
- Empirical data can be collected
- Cost effective
- Response from a large population can be received covering a wide geographical area.
- High rate of response can be generated from educated population.
- Respondents get a chance to prepare and revise their answers before finally answering the questionnaire.
- Researchers also get a chance though pretest to revise the final questionnaire.
- Responses are easy to analyse and tabulate.
- Questionnaire method provides the respondents to express their views on any given topic freely.
- Questionnaire has a fixed format with a given number of questions. This helps in eliminating variation in questioning process.

**Limitations of Questionnaire Method**

- Difficult to receive adequate response rate. People are in the habit of not filing and returning in time.
- Reliability of data can be questioned
- Truthful answers cannot be ascertained.
- It is time-consuming activity, which includes preparation, pretest, revision, distribution and sending reminders adding to time and cost of data collection.
- Incomplete answers also cause problem during analysis stage.
- Researcher cannot observe the respondents reaction at the time of filling up of the questionnaire.
- The questions can be wrongly interpreted which can affect the analysis.
- Assumptions of the researchers for certain things may prove opposite to the respondents perceptions.
- Technical jargon/ professional terminology may play havoc for the respondents. It may be possible that the questionnaire is returned with substantial number of unanswered questions.
- Complex worded questions also fetch poor results.
- There is a possibility that the questionnaire may be biased. It may not have included certain important questions though are very useful otherwise, due to the lop-sided preference of the researcher.
- Verification of the accuracy of the responses received from questionnaires might be difficult.
- Potential respondents may become discouraged by getting ill prepared questionnaires.

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**11.8 SUMMARY**

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Paul Burton has very rightly said: “Properly designed and analysed questionnaires can be a rich and reliable source of research data, both quantitative and qualitative”. Hence, proper attention has to be paid to carry out a questionnaire survey. If not done properly, it may lead to misleading results.

This Unit has described the method of construction of questionnaire. It has also highlighted the type of questions to be asked and precautions to be taken while listing the questions. Merits and demerits of asking open and close-ended questions have also been discussed. Questionnaire is an effective tool to gather both quantitative as well as quantitative data in survey research quickly, is considered the most popular research method.

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**11.9 ANSWERS TO SELF CHECK EXERCISES**

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- 1) What should be the length of the questionnaire has been debated for a long. There is a belief that if it is lengthy the respondents may not fill it and leave it incomplete. Therefore, resulting in low response rate. If the questionnaire has less number of questions there is a possibility of getting high response rate.

- 2) Covering letter explains the objective of the survey and it requests the respondents to fill it. The researcher through this letter assures the respondents the confidentiality of their answers and the usage of data for research purpose only.
- 3) Open ended questions are those questions where respondent give answer in their own language. They freely express their views and answer according to their interpretation. These questions are also called unstructured questions. Close-ended questions are structured questions. Every question has a number of alternate answers. A respondent has to select one answer. These questions are also called precoded questions.
- 4) Rating scale is a measuring tool that requires the observer to assign the rated object to categories or continuum that have numerals assigned to them.
- 5) Pretesting as the name suggests is a process of finalizing the questionnaire before putting it to actual use. It is essential as it alerts the researcher to the weaknesses, trouble points, and ambiguity in the questions. After pretesting the researcher revises it and circulate to the target population.
- 6) Web-based questionnaire has advantages over printed questionnaire. The former can be distributed and received back from the wide spread population automatically. The answers can be validated. It is easy, quick and inexpensive.

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## 11.10 KEYWORDS

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- Questionnaire** : It is data gathering instrument in survey research. It is a list of written questions, which are to answered by the target population.
- Open Ended Questions** : They are also called unstructured questions. In such questions respondents express their views freely.
- Close Ended Questions** : They are also known as structured questions. These questions are having number of answers. The responded is asked to choose one from the given options.
- Pretesting** : Before finalizing the questions in the questionnaire it is circulated to a sample for their opinion and suggestions. It is also called pilot survey.
- Response Rate** : The number of respondents returned the filled in questionnaire.
- Rank Order Scale** : Respondents are asked to rank all items according to some specified order.
- Scaling Technique** : A finite sample of concepts or items is ordered along a continuum. This may or may not accompanied by qualitative measurement of the variable represented by continuum.
- Weighted Index** : Weighted index derives by multiplying the percentage of respondents (weights) with the numerical value assign to the scale, and dividing the product by total value of the scale in terms of percentage.

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## 11.11 REFERENCES AND FURTHER READING

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