


Subject: Human Resource Management

Production of Courseware

 - Content for Post Graduate Courses



Paper 05: Research Methodology
Module 07: Questionnaire Designing



Development Team

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Items	Description of Module
Subject Name	Management
Paper Name	Research Methodology
Module Title	DESIGNING QUESTIONNAIRE
Module ID	Module 7
Pre-Requisites	Understanding the basic concepts of questionnaire
Objectives	To study the types of data and scales
Keywords	Group focus interviews, Mailed questionnaire, , Personal interviews,

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QUADRANT –I

1. Module : Designing the Questionnaire
2. Learning Outcome
3. Introduction
4. Types of questionnaire
5. Kinds of questionnaire items
6. Features of a Good Measurement
Summary

1. Module 7: Designing the Questionnaire

2. Learning Outcome

After studying this module, you shall be able to

- Know the nature of questionnaire
- Understand the types of questionnaire
- Comprehend the types of questions
- Understand the kinds of questionnaire items
- Become aware of the criteria for question designing

3. Introduction

The development and designing of questionnaires is one of the most complex issues of carrying out research. It is difficult for a survey to achieve success without a well-designed questionnaire. However, there is no theoretical base to designing a questionnaire to assist the researcher in developing a sound questionnaire. A questionnaire is a printed form in which a number of questions are arranged in a specific sequence, generally sent to the respondents through mail. The respondents are expected to read, understand and answer them in writing in the spaces provided for the purpose on the questionnaire forms. A questionnaire, whether called a schedule or measure, is used for obtaining information from respondents.

Questionnaire design is one of the most important and most commonly used areas of research. The questionnaire determines the accuracy and relevance of data collected. A questionnaire performs some very important functions:

- Motivates the respondents to give answers.
- Stimulates the responses
- Determines how the respondents should answer, straight forward questions.
- Treats information confidential

4. Types of questionnaire

Usually the questionnaires are classified on the basis of their structure: structured questionnaire and unstructured questionnaire:

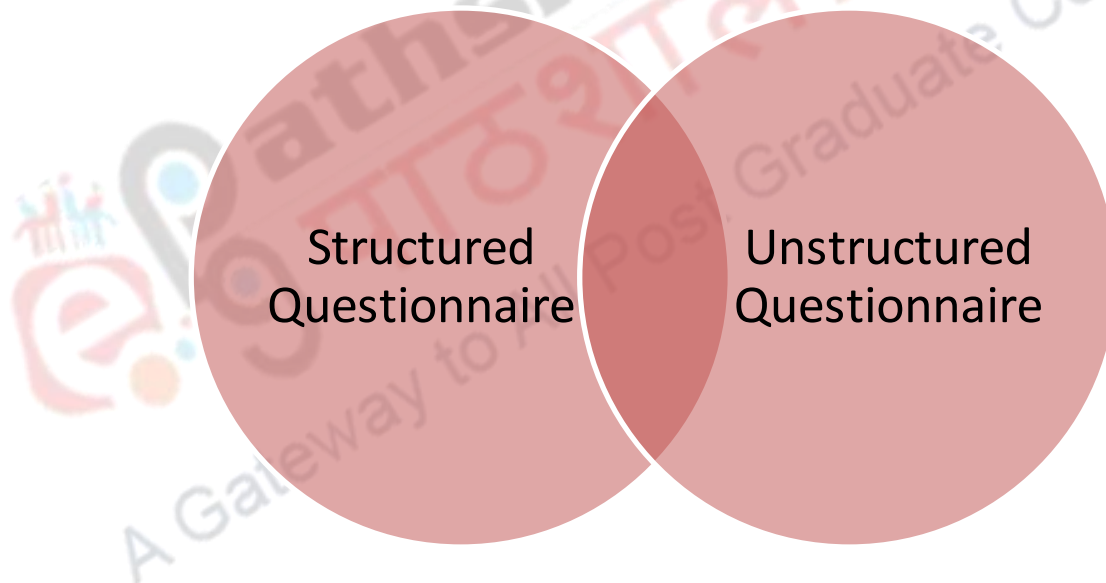


Figure 1 Types of Questionnaire

4.1 Structured questionnaire

Structured questionnaires contain definite, predetermined questions which to all the respondents are furnished in the same words and sequence. The standardization ensures that the same questions are replied by all the respondents. The form of the question may be either closed or open, stated in advance and not constructed during the questioning. This type of questionnaire may present alternative answers or may leave the respondent open to answer in his-own words. Fixed alternative questions are restricted to the stated options. Open-ended questions are designed to permit a free response from the subject rather than limited to stated alternatives.

5. Determining the type of questions

After determining on the essentiality of questions and the mode of administration, the researcher decides on the response categories. The essential difference is whether the response options would be provided to the respondent will be left free to give his opinion in his own words. The questions can be open-ended and closed-ended questions.

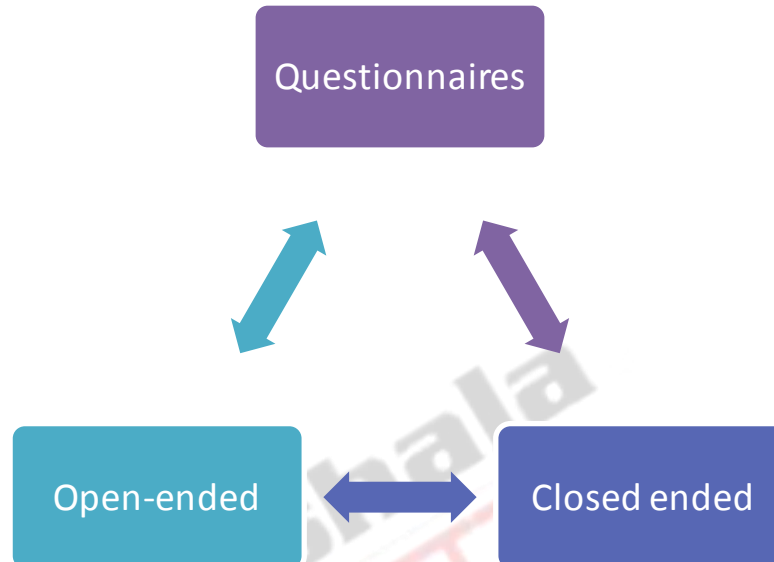


Figure 2 Types of Questionnaire

5.1 Open-ended

This type of questions are also termed as unstructured questions, free-response or free-answer question. The researcher suggests no alternatives. Thus, the words, logic and structure that a person would give while filling the answers are totally left to discretion of the respondent. 'How would you assess the performance of the present government? What is your reaction to this new noodle?'

Open-ended questions can typically be used for three reasons. First, they can be used in the beginning to start the questioning process. For example, a questionnaire on investment behavior could begin with: How do you think people manage their savings? This puts the respondent into the frame of answering investment-related question. Yet, the question is in third person and, thus, is non-threatening. Open-ended question can also be used as probing or clarifying questions to understand the reason behind certain responses. Why do you feel that way? Thirdly, they can be used in the end as suggestions or final opinions. For example, any suggestion you would like to give in terms of improving the quality of the working life in your organization'. These questions have the inherent advantage of improving the validity of the construct being studied. However, coding or categorizing the written responses for open-ended question is expensive both in terms of time as well as finances. These questions also depend upon the respondents' skill to articulate well. They are more suited to face-to-face interactions rather than the self-administered type there are chances of misinterpretation or a complete non-response as well. However, they are still recognized as rich and versatile sources of data collection. There exist a number of ways to reduce the subjectivity on the part of the researcher and effort on the part of the respondent.

5.2 Closed-ended questions

In closed-ended questions, both the question and response format are structured and defined. The respondent only needs to select the option(s) that he feels are expressive of his opinion.

There are here kind of format- dichotomous questions, multiple-choice question and a scaled response.



Figure 3 Closed ended questions

5.2.1 Dichotomous questions

Dichotomous questions are limited options offering the respondents only two answers which could be 'yes' or 'no' or 'like' or 'dislike', similar or dissimilar, married or unmarried etc. These are forced choice and the respondent needs to select one of them. Sometimes they might be complemented by a neutral alternative, such as 'no opinion' or 'do not know' or 'none'. If there are only two choices, he is forced to take a stand even when he has no opinion on either or he is uncertain about the two options. However, some of the respondent want to avoid taking a stand and use it as an escape, thus the researcher does not get any meaningful number for or against the issue under study.

Dichotomous questions are easiest type of questions to code and analyze constructed on the nominal level of measurement and are categorical in nature.

5.2.2 Multiple choice questions



Figure 4 Multiple-choice questions (Adapted elarningindustry.com)

The multiple choice questions, the respondent gets a number of response alternatives and asked to choose the one that is most applicable. For example, a retailer who is not presently selling organic food products is asked this:

Will you consider selling organic food products in your store?

- Definitely
- Probably
- Undecided
- Probably not
- Definitely not

Sometimes, multiple choice questions have numerical options for the respondent to choose from. There could also be that multiple options are given to the respondent in the form of a checklist and he can select all those that apply in the case.

5.2.3 Scales

Scales refer to the attitudinal sales. These questions, designed on the scales e.g. Likert scale require simple agreement and disagreement on the part of the respondent. This scale is based on the interval level of measurement. The scale ranges from strongly agree to strongly disagree. The scaled questions are easy to administer, to code and tabulate and quantification of subjective variables and attitudes become possible.

6. Kinds of questionnaire items

The information the questionnaire seeks may be categorized under three heads:

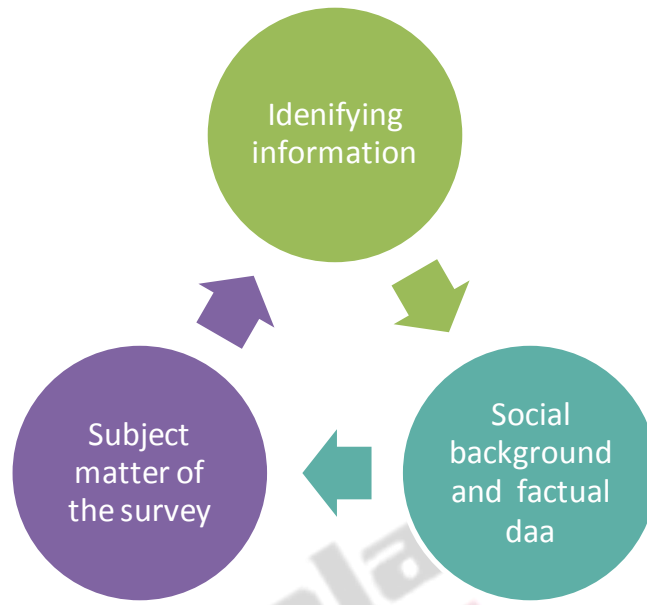


Figure 5 Questionnaire items

6.1 Identifying information

The identifying information may consist of Questionnaire case, cross-referring number of the questionnaire, name of survey, name of survey sponsoring agency, name of person or household interviewed, gender of respondent, relation of the respondent to the family head, case address, phone number for contact, name or initials of the case, notes as to the confidentiality of returns.

6.2 Social background and factual data

This category may include the items as age of family's head person, number of family members, marital status, educational qualifications, religion, political preference, membership of the union, composition and size of the family and, occupation, employment, income, socio-economic status.

6.3 Subject matter of the survey

The respondent may be asked a direct question relating to the facts as he understands or recalls them. Some information can be received rather easily by asking straightforward questions. The opinions which he holds are not so readily ascertained. First, there is the so-called 'questions for the general information'. When knowledge about the topic is correlated in definiteness with the opinions held these information questions are specifically important. The opinions may be elicited only from those who are in a position to hold them.

A second approach is that of looking for advice. The fact that his advice is regarded as important praises excessively the informant. A study of factors connected with family size used this approach effectively.

The opinion polls use exploratory questions approach. In this type of questions the informant is given an adequate amount of information about the topic of survey to make a sensible judgment

7. Criteria for question designing

This stage of designing the questionnaire deals with translating the questions identified into meaningful questions. Utmost care is needed to ensure that the questions are so worded that they are clear and easy to understand by the respondent. A confusion question or a poorly-worded question might result in either no response or a wrong response that may prove detrimental to the purpose of the research study.

There are certain designing criteria that a researcher should adhere to when writing the research question.

7.1 Clearly specify the issues

On reading the question, the person should be able to clearly understand the information needed.

7.2 Use simple terminology

The investigator must be careful to put up questions in a language really understood by the population under study. Technical jargons or pedantic words that are not used in everyday conversation must be avoided.

7.3 Avoid ambiguity in questioning

The words in the questionnaire should convey the same thing to all respondents. A lot of words are subjective and relative in meaning

7.4 Avoid leading question

Any question that provides a clue and direction to the respondent that the researcher wants called a leading question.

7.5 Avoid loaded questions

Questions addressing sensitive issues are known as loaded question and the response to these questions might not always be honest, as the person might not wish to admit the answer even when assured about his anonymity. For example, have you ever cheated on your spouse? Sensitive questions like this can be rephrased and camouflaged in a variety of ways. For example, do you think most people usually cheat on their spouses?

7.6 Avoid implicit choice and assumptions

In case the opinion being queried is done in isolation and the other alternatives the person might have are hidden, this is referred to as an implicit assumption. Thus, in case other choices are not specified in the response categories, the assumption made about the option being evaluated might not be correct.

7.7 Avoid double-barreled questions

Questions having two separate options divided by an 'or' or an 'and' are known as double-barreled questions. For example, do you think Nokia and Samsung have a wide variety of touch phones?

8. Questionnaire Design Procedure

The development of a questionnaire involves a number of steps including decisions concerning the information needed, the target respondents and the way of approaching the target respondents, the content of the question, the manner of putting the question questions and format, length of the questionnaire, testing the questionnaire with a pilot study and finalizing the survey form

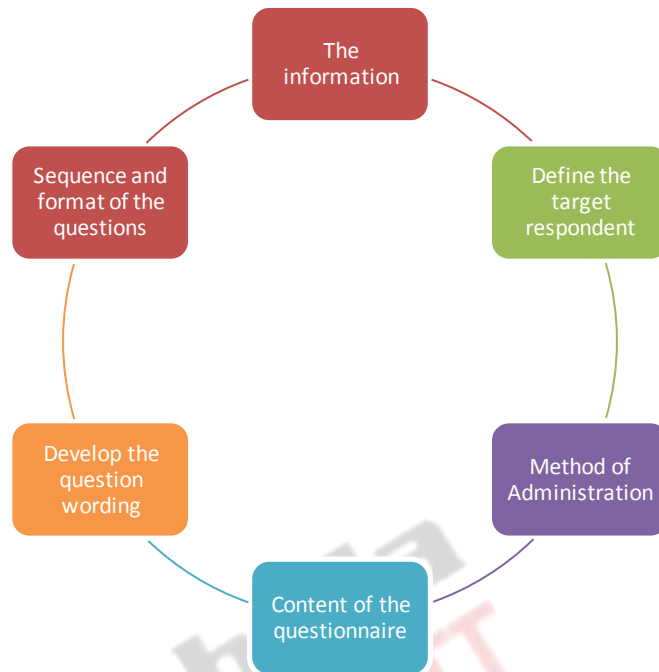


Figure 6 Questionnaire Design Procedure

8.1 The information

The researcher first has to decide the things he wants to know from the respondent for the accomplishment of the objectives of the survey? These are presented in the summary and the proposal of research.

The research may have a notion about the sort of information to be gathered, but secondary data and exploratory research can provide more assistance. For secondary data, the researcher has to know work already done on the same or identical problems and the factors yet to be examined.



Figure 7 Workshop on Questionnaire Designing

8.2 Define the target respondents

In this step, the researcher must determine the population to which conclusions are intended to be generalized drawn from the sample. For example, in studies concerned with marketing, researchers have to determine whether only existing users of the generic product type or non-users also to be included in designing the sampling frame. In designing the questionnaire factors the demographic information such as age, education, etc. of the target respondents also be considered.

8.3 Method of Administration

The way of approaching the intended respondents should be a part of the process of designing questionnaire as this will influence not only the questions asked but also the phrasing of questions. The personal interview, group or focus interview, mailed questionnaires, and the telephonic interviews are the common methods available in survey research. The personal interviews and focus interviews are made use of widely as compared to the mailed questionnaires and telephone interviews. For collecting sensitive or personal information, the personal form of data collection will be more suitable.

8.4 Content of the Questionnaire

While examining the content of the questionnaire researchers must ask, "what is the need of a particular question?" The temptation to hold questions without evaluating their addition to the attainment of objectives of research, as mentioned in the research proposal, is enough. There

is no justification of holding a question if it does not make straight contribution to testing of the hypotheses at the time of the research design.

There are simply two conditions when needless questions appearing again and again might be included: Opening questions often simple to reply and not viewed as tending to menace, are seen with interest, help in gaining the respondent's entailment to a great extent in the survey and assist to create a relation especially harmonious with him/her. "Dummy" questions can conceal the purpose of the survey.

8.5 Develop the question wording

Closed, open-ended, and open-response option questions are the three forms of survey question. The respondents find it easy to indicate his answer for the closed ended questions. He need not ponder about how to answer. The responses to the closed ended questions are characterized by ease, making analysis straightforward and permit the respondent to mention the answer alternatives most suitably for their purposes. However, the respondent does not get an opportunity to indicate a different response.

The respondent gets freedom to answer open-ended question in his own words and there is no effect of the suggested specific alternatives suggested by the interviewer and this may disclose those findings which were not initially taken into account when the survey was begun. However, the respondents may not find it easy to reveal their attitudes or motivation with open ended questions.

A combination of open-ended and particular response –option is found in open response-option type of questions. This sort of questions can assist the researcher to shun the difficulty of little memory being in a position to inspire the respondent to ponder specific response alternatives. If situation requires, all three forms of questions may be combined in a questionnaire as some form of questions are more appropriate for seeking a particular response. Closed questions can be used where the respondent requires help to give replies on a preferred dimension the researcher decided.

Open ended questions are preferred where the intention is to obtain answers in the respondent's own words. In many situations the mixed kind of questions would be helpful where potential response-alternatives are understood; inspired and uninspired responses are helpful, and the survey requires unforeseen responses

8.6 Sequence and format of the questions

8.6.1 Beginning questions:

Opening questions needs to be simple to answer. The significance of the first question is that it lays open the respondent to the interview, prepares the platform for the interview to be performed. In case the respondent is not able to understand the question, the respondents are discouraged to answer. If the opening question is easy to answer, the respondent is encouraged to continue.

8.6.2 Question flow:

The flow of questions should be in some sort of psychological order, so that the respondent can easily and naturally proceed to the next. All questions relating to one subject or to a particular aspect of a subject should be put at one place. Frequent shifting from topic to topic or come back to the same subject, respondents may find it uncomfortable.

8.6.3 Question variety:

When a respondent is asked similar questions continuously, he becomes restless. The respondent feels relief if an open-ended question is asked after a long series of close-ended questions.

8.6.4 Closing questions

As the questionnaire approaches the final portion, the respondents become indifferent. Due to impatience, careless answers may be given for the later questions. The earlier part of the questionnaire must contain the questions of special importance and sensitive questions should be left to the end.

8.7 Physical appearance of the questionnaire

The quantity and quality of the data obtained is significantly affected by the structure of a questionnaire. The rate of response determines the quantity of data. Questionnaires poorly designed can be complex and time consuming. The physical appearance of the questionnaire also influences the data quality.

8.8 Pilot testing of the questionnaires

It is necessary to test the questionnaire on a full scale with a pilot study to identify any shortcoming. For the purposes of piloting the questionnaire, a small number of respondents are selected broadly representing the sample to be interviewed in the main survey.

Summary

An appropriately framed questionnaire is necessary to a survey with favorable outcome. The researcher needs to develop his/her own intuition regarding a 'good design' since there are no guidelines for the researcher. Usually there are two types of questionnaire structured and unstructured questionnaire. The questions to be included in the questionnaire are open and closed-ended, questions divided into two parts, alternative choice questions and questions based on scales.

The information a questionnaire seeks include identifying information, social background and factual data and the subject matter of the survey. The researcher has also to establish the criteria for question designing by clearly specifying the issues, use simple terminology, and avoid ambiguity in questioning, avoid leading and loaded questions, avoid implicit choice and assumptions and avoid double-barrel questions.

A well designed questionnaire achieves the research objectives, complete and accurate information is provided; is comfortable to complete, and enables analysis and interpretation.

There are different steps in the procedure for designing questionnaire: decision concerning the needed information, determination of the respondents, selection of the methods to access the respondents, determination on the content of the question; wording the questions; arrange the sequence of questions; examine the length of the questionnaire length; pilot the questionnaire and evolve the final questionnaire.