

A Presentation on Developing Questionnaire



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Outline of Discussion



- What is Questionnaire
- Purpose of Questionnaire
- Elements of Questionnaire
- Characteristics of Questionnaire
- Types of Questionnaire
- Steps to develop Questionnaire
- When to use a questionnaire
- Issues related content of Questionnaire
- Guideline in developing questionnaire
- Advantage and Disadvantages of Questionnaire
- Questions from Participants

What is a Questionnaire



“Questionnaire is a tool / Instrument made of set of Questions”

Purpose of Questions

Questionnaire is a set of **standard questions** for gathering **related** information from a group of individual

Concise,
particular &
information
oriented

ICT application



School Students

Dietary Pattern



Obese/Diabetic

Motive behind exercise



Exercising Individual

Personality Traits



Athlete



- ❖ Questionnaire typically used to measure **affective domains** such as attitude and opinions.





What is a Questionnaire

A set of Questions designed to generate the statistical information from a specific demographic needed to accomplish the research objectives



A questionnaire is a research tool consisting of a series of questions and other **prompts (Fact)** asked to individuals to obtain **statistically useful** information about a given **topic**. The questionnaire is invented by the **Sir Francis Galton. (S.Pandya, 2010)**

What is a Questionnaire

How Healthy Is Your Lifestyle?
Instructions: Take this Lifestyle Assessment to determine your lifestyle score. Mark the box that best describes your current health practice or status for each item below.

	Column A	Column B	Column C
1 Smoking Do you smoke?	<input type="checkbox"/> Constantly smoke	<input type="checkbox"/> Ex smoker	<input type="checkbox"/> Never smoked
2 Weight Provide overweight	<input type="checkbox"/> Excessively overweight 20% more pounds		<input type="checkbox"/> Not overweight
3 Physical Activity No. of active days/week (30+ minutes)	<input type="checkbox"/> No regular physical activity program		
4 Fruits and Vegetables No. of servings/day	<input type="checkbox"/> Less than 5 servings fruits and vegetables each day		
5 Breads and Cereals Type eaten	<input type="checkbox"/> Eat mostly white bread & refined cereals		
6 Animal Fat/High Cholesterol Foods Typical intake	<input type="checkbox"/> Regularly eat high fat meats, hamburgers, bacon, hot dogs, chicken, eggs, etc. (omit, list)		
7 Sleep/Rest Hours sleep/night Feel rested or tired?	<input type="checkbox"/> Usually get 6-8 sleep/night		
8 Alcohol Typical number of drinks in a day	<input type="checkbox"/> Min 3 or 4 one day, drink		
9 Regular Meals Do you eat breakfast?	<input type="checkbox"/> No		
10 Happiness/Life Satisfaction Happy with life?	<input type="checkbox"/> No		
11 Social Support/Interaction Walk family and friends?	<input type="checkbox"/> No		
12 Spiritual Connection Do you spend time developing your spiritual life?	<input type="checkbox"/> No		

Scoring Instructions:
1. Add number of checked boxes in column B or C in row 1.
2. Add number of checked boxes in columns B or C in rows 2-12.
3. Add number of checked boxes in column C in rows 1-12 to scores with the following standards.

Score	1-2	3-4	5-6	7-8	9-12
Column A - "Needs Improving"	0	1	2	3	4
Column B - "Minimum Goals"	0	1	2	3	4
Column C - "Optimum Goals"	0	1	2	3	4

Recommendations:
 Stop smoking
 Achieve and maintain a healthy weight
 Get the maximum of moderate intense physical activity once weekly all days of the week.
 Choose whole-grain breads and cereals.
 Limit intake of animal fat and cholesterol.
 Get adequate sleep, 7-8 hours daily, and take naps as indicated.
 Avoid alcohol.
 Eat regular meals, breakfast each day and keep up life.
 Get help if needed, or resolve problems as they arise.
 Develop a personal life that provides direction, meaning to your life, and peace with others, strength, growth, and encouragement.

Personal Goals
Write out your personal wellness goals below. Start with the likely to change.
1. _____
2. _____
3. _____

The questionnaire is probably most **used** and most **abused** of the data gathering devices .It is easy to prepare and to administer. The questionnaire is a form prepared and distributed to secure **responses** to certain **questions**. It is a device for securing answers to questions by using a form which the respondent will fill by **himself**. It is a systematic compilation of questions. It is an important instrument being used to gather information from **widely scattered sources**. Normally used where one cannot see personally all of the people from whom he desires responses or where there is no particular reason to see them personally.

What is a Questionnaire

How Healthy Is Your Lifestyle?
Instructions: Take this Lifestyle Assessment to determine your lifestyle score. Mark the box that best describes your current health practice or status for each item below.

	Column A	Column B	Column C
1 Smoking Do you smoke?	<input type="checkbox"/> Currently smoker	<input type="checkbox"/> Ex-smoker	<input type="checkbox"/> Never smoked
2 Weight Provide overweight	<input type="checkbox"/> Excessively overweight 20% more pounds	<input type="checkbox"/> Overweight	<input type="checkbox"/> Not overweight
3 Physical Activity No. of active days/week (30+ minutes)	<input type="checkbox"/> No regular physical activity program	<input type="checkbox"/> 1-2 days/week	<input type="checkbox"/> 3-5 days/week
4 Fruits and Vegetables No. of servings/day	<input type="checkbox"/> Less than 5 servings fruits and vegetables each day	<input type="checkbox"/> 5-6 servings	<input type="checkbox"/> 7-8 servings
5 Breads and Cereals Type eaten	<input type="checkbox"/> Eat mostly white bread & refined cereals	<input type="checkbox"/> Whole grain breads & cereals	<input type="checkbox"/> Whole grain breads & cereals
6 Animal Fat/High Cholesterol Foods Typical intake	<input type="checkbox"/> Regularly eat high fat meats, hamburgers, bacon, hot dogs, chicken, eggs, etc.	<input type="checkbox"/> Occasionally eat high fat meats, hamburgers, bacon, hot dogs, chicken, eggs, etc.	<input type="checkbox"/> Never eat high fat meats, hamburgers, bacon, hot dogs, chicken, eggs, etc.
7 Sleep/Rest Hours sleep/night Feel rested or tired?	<input type="checkbox"/> Usually get less than 7 hours sleep/night	<input type="checkbox"/> 7-8 hours sleep/night	<input type="checkbox"/> 9-10 hours sleep/night
8 Alcohol Typical number of drinks in a day	<input type="checkbox"/> More than 3 drinks in a day	<input type="checkbox"/> 1-2 drinks in a day	<input type="checkbox"/> 0 drinks in a day
9 Regular Meals Do you eat breakfast?	<input type="checkbox"/> No	<input type="checkbox"/> Sometimes	<input type="checkbox"/> Yes
10 Happiness/Life Satisfaction Happy with life?	<input type="checkbox"/> No	<input type="checkbox"/> Sometimes	<input type="checkbox"/> Yes
11 Social Support/Interaction Walk, family and friends?	<input type="checkbox"/> No	<input type="checkbox"/> Sometimes	<input type="checkbox"/> Yes
12 Spiritual Connection Do you spend time developing your spiritual life?	<input type="checkbox"/> No	<input type="checkbox"/> Sometimes	<input type="checkbox"/> Yes

Scoring Instructions
1. Add number of checked boxes in column B or C in rows 1-12.
2. Add number of checked boxes in column B or C in rows 1-12.
3. Add number of checked boxes in column C in rows 1-12.

Recording Scores—After adding up your scores, record them in the following table.

Item	Column B	Column C
1. Smoking	0	0
2. Weight	0	0
3. Physical Activity	0	0
4. Fruits and Vegetables	0	0
5. Breads and Cereals	0	0
6. Animal Fat/High Cholesterol Foods	0	0
7. Sleep/Rest	0	0
8. Alcohol	0	0
9. Regular Meals	0	0
10. Happiness/Life Satisfaction	0	0
11. Social Support/Interaction	0	0
12. Spiritual Connection	0	0
Total Score	0	0

Lifestyle Scores

Column A—“Needs Improving” Any marks in this column show need for improvement. Check the appropriate “Recommendations” box below.
Column B—“Minimum Goals” These are minimum levels you should achieve. If you would like to make further improvement in these areas, mark Column C—“Optimum Goals” For optimum health and longevity, aim for the optimum goal. You may not be able to achieve all of them, but use how many you can.

Recommendations: Mark any lifestyle practice below that you need to improve.

- Stop smoking
- Adhere and maintain a healthy weight
- Get the active of moderately intense physical activity some 3-5 times/week
- Eat 5-8 servings of fruits and vegetables every day
- Choose whole-grain breads and cereals
- Limit intake of animal fat and cholesterol
- Get adequate sleep, 7-8 hours daily, and take naps as needed
- Avoid alcohol
- Eat regular meals, breakfast each day and before bed
- Get help if needed, or make problems as minor as possible
- Manage aggressive relationships with family & friends
- Develop a spiritual life that provides direction, meaning to your life, and peace with others, strength, growth, and encouragement.

Personal Goals
Write out your personal wellness goals below. Start with the most important goal.

1. _____
2. _____
3. _____

The Questionnaire design is a long process that demands careful attention. A questionnaire is a powerful evaluation tool and should not be taken **lightly**. Design begins with an understanding of the **capabilities** of a questionnaire and how they can **help** your research. If it is determined that a questionnaire is to be used, the greatest care goes into the planning of the objectives. Questionnaires are like any scientific experiment. One does not collect data and then see if they found something interesting. One forms a **hypothesis** and an **experiment** that will help **prove** or **disprove** the hypothesis.

Purpose of Questionnaire

- The primary purpose of a questionnaire is to **extract data** from respondents. (in form of Interview, Opinion, and questionnaire)
- It is an **Inexpensive** way to gather **data** from a **potentially large** number of respondents (by mail, email or telephonic)
- It helps to Increases **speed** and **accuracy** of **recording**
- When properly **constructed** and responsibly **administered** It becomes a very important tool for providing a **standardised** data **gathering procedure**.

Helps to save time, money and energy

Improper design can lead to?

- Incomplete information
- Inaccurate data
- Higher costs

Elements of Questionnaire

- Eating Habits
- Motive Behind Exercise
- Teacher Questionnaire on use of ICT

1 **Title:**

It should be very clear and precise

This helps to **identifies** the domain of the investigation.

The respondent is initially get **oriented** to the investigation.

It should be **captivating** enough to attract **attention** and **enthusiasm**.

Elements of Questionnaire

2 **General introduction:**

This has a **description** of the **purpose** of study.

The respondent is assured of **confidentiality** of information, making **clear** that there are no wrong or right answers.

Honest answers are also requested.

POLLUTION QUESTIONNAIRE

This questionnaire is designed to allow underwriters to assess the exposures that exist, in your activities, in connection with pollution and/or contamination or other environmental work related issues

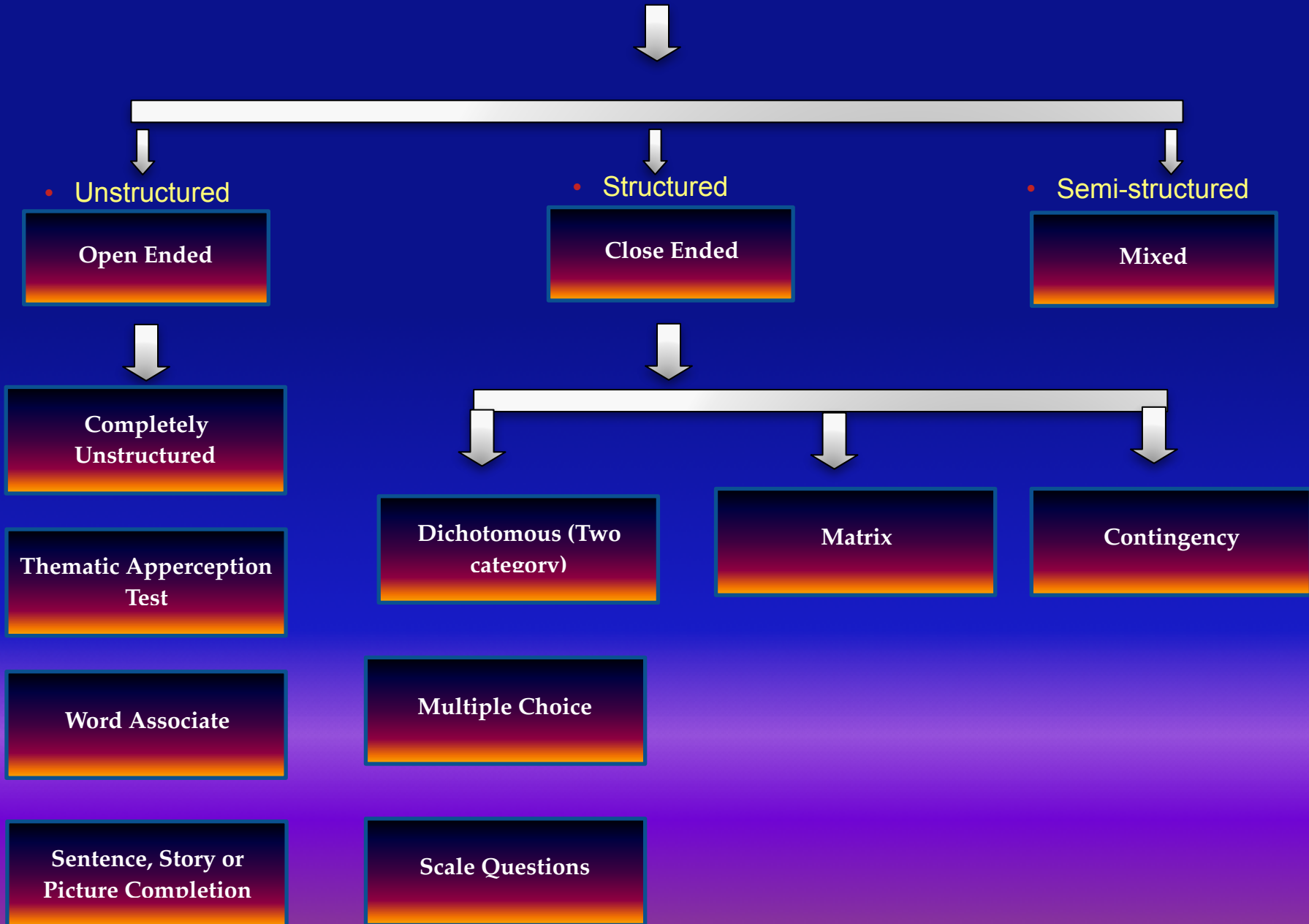
Elements of Questionnaire

3. **Specific instructions:**
This offers **concise** demonstration on how to carry on with the business of responding to the questionnaire.
4. **Questionnaire items:**
It is the main part of the questionnaire schedule, to be clearly separated from the **aforementioned** parts.
5. **Additional information:**
includes the full contact information of the researcher/ administrator. May include a promise that a copy of the summary of the final report would be send to the respondent on request.
6. **"Thank you"** may end the questionnaire.

Characteristics of Good Questionnaire

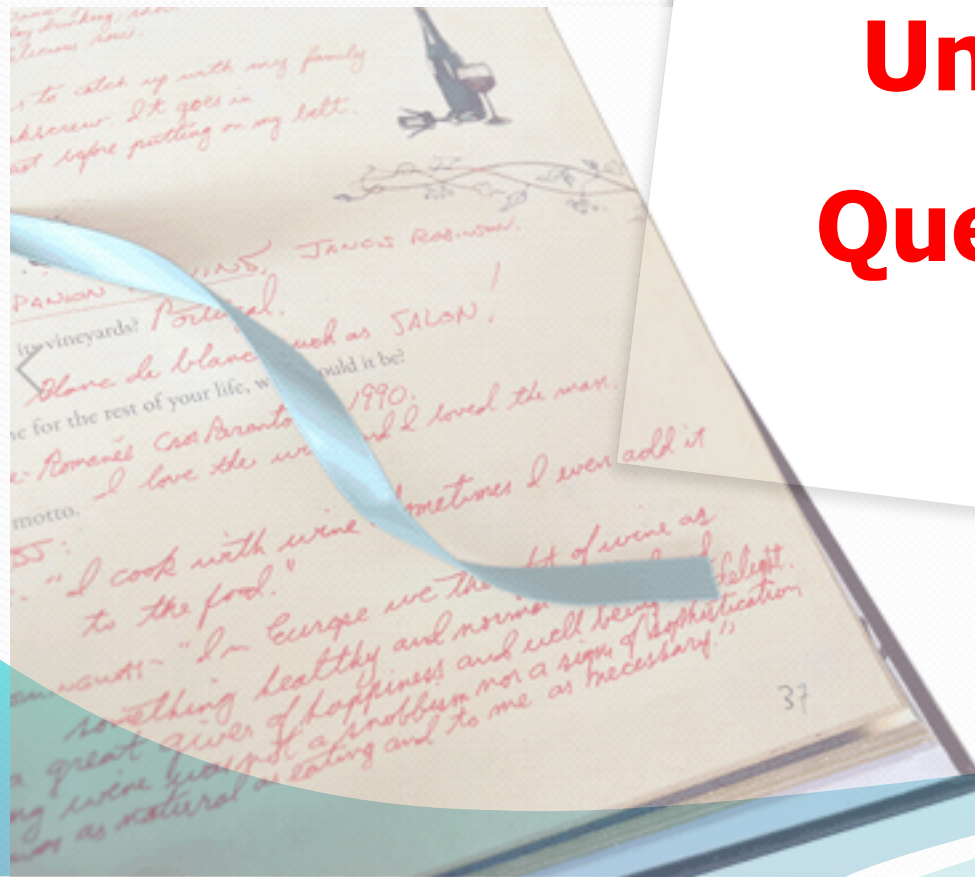
1. It deals with an **important** or **significant topic**.
2. Its **significance** is carefully stated on the questionnaire or on its **covering letter**.
3. It seeks only that data which cannot be obtained from the resources like books, reports and records.
4. It is as **short** as possible, only long enough to get the essential data.
5. It is **attractive** in appearance, neatly arranged and **clearly** stated or printed.
6. **Directions** are **clear and complete**, important terms are clarified.
7. The questions are **objective, with no clues**, hints or suggestions.
8. Questions are presented in a **order from** simple to complex.
9. Double **barrelled** questions or putting two questions in one question are also avoided.

Types of Questionnaire



1. Completely Unstructured
2. Thematic Apperception Test
3. Word Associate
4. Sentence, Story or Picture Completion

Open Ended or Unstructured Questionnaires



Open Ended Questionnaire

Open ended Questions

Open ended questions give an opportunity to the respondents to express their opinions in a free-flowing manner. These questions don't have **predetermined** set of responses and the respondent is free to answer whatever he/she feels right. It can help to get **true, insightful and even unexpected** suggestions. **Qualitative** questions fall under this category.

An ideal questionnaire would include an open-ended question at the end of the questionnaire that seeks **feedback** and/or **suggestions** for **improvements** from respondents.

Freedom to express opinion

No capping of options (Avoid bias)

Scope to obtain **more information**

Data form is **Qualitative**

Difficult to **analyse/ coding** statistically

1. completely unstructured questions

Such questions were ask openly to get opinion or view about the aspect.

Suggest your opinion to promote healthy lifestyle in India

State your opinion about sports policy amended by the sports ministry of India?

How can we promote women empowerment in India

What are the facilities do you expect from your institution

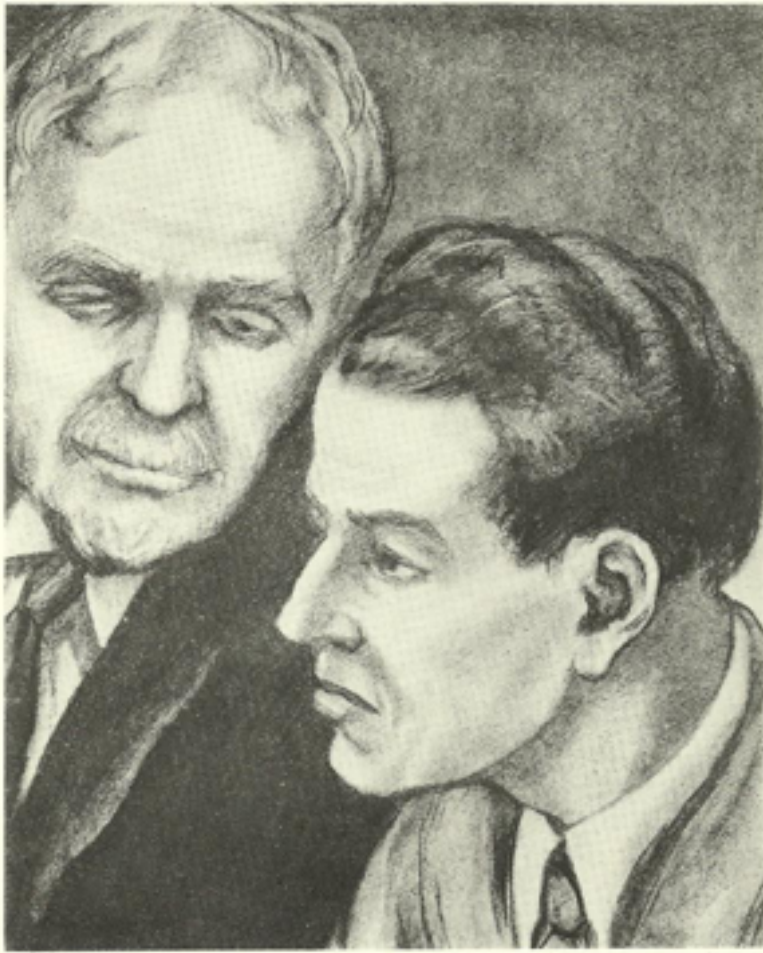
3. Thematic Apperception Test

TAT invented by (Murray, 1943) was originally designed to measure normal dimensions of personality in the general population

In this questionnaire, sequence of Pictures shows to respondent in same order for same duration and ask the following question on every picture as,

1. What happens,
2. What led up to the situation,
3. What the outcome would be,
4. And what the characters would be thinking and feeling.

The respond may be analyse in terms of any theme, conflicts, motivation, interest etc. that appear in them.



Thematic Apperception Test



Image similar to those used in TAT



3. Word Associate Questions

words are presented and the respondent mentions the first word that comes to mind.

Exam - Tension
Mother - Love

4. Sentence, Story or Picture completion

The respondent complete an incomplete sentences, stories or write on empty conversation balloon in a picture



Close Ended or Structured Questionnaires

1. Dichotomous (Two category)
2. Multiple Choice
3. Scale Questions
4. Matrix
5. Contingency

Scale Questions
Matrix
Contingency

Closed Ended Questionnaire

Closed Format Questions

Multiple choice questions, where respondents are restricted to choose among any of the given multiple choice answers are known as closed format or closed-ended questions. There is no fixed limit as to how many multiple choices should be given; the number can be even or odd.

One of the main advantages of including closed format questions in your questionnaire design is the ease at performing preliminary analysis. These questions are ideal for calculating statistical data and percentages, as the answers set is known. Closed ended questions can also be asked to different groups at different intervals to efficiently track their opinion about a product/service/company over time.

1. Limited **Freedom** to express opinion
2. **Caping** of options (Avoid bias)
3. No thumb rule - **fix** numbers of options
4. Data form is **Quantitative**
5. Easy to **analyse/ coding** statistically
6. Scope of getting extra information is very less.

Close Ended Questionnaire

1

Dichotomous Questions

These are simple questions that ask respondents to answer in a yes or no. One major drawback with dichotomous questions is that it cannot analyse the answers between yes and no, there is no scope for a middle perspective.

Example of a Closed-Ended Dichotomous Question

Do you like the Products of ABC Corporation?

Yes

No

1. Dichotomous (Two category)

these kinds of questions has two possible responses only, either

Yes / No

True / False

Agree / Disagree

Have you ever experienced a service from our fitness centre

Yes / No

please enter your gender

Male / Female

Sports performance always counted as "No pain No gain"

True / False

Healthy practices promotes quality of life

Agree / Disagree

2

Closed-ended - Multiple Choice

- ▶ When all response choices are known
- ▶ When quantitative statistical results are desired

Which of the warm up duration you follow before athletic competition?

- 10 min.
- 15 min.
- 20 min.
- 25 min.
- more than 25 min.

closed Ended scale format

3

Likert Questions

Likert questions can help you ascertain how strongly your respondents agree to a particular statement. Such type of questions also help you assess how your customers feel towards a certain issue, product or service.

Example of a Closed-Ended Likert Question

ABC Corporation's Products have to improve on quality?

1
Strongly
Agreed

2
Agreed

3
Neither Agree
or Disagree

4
Disagree

5
Strongly
Disagree

Likert-scale

To assess a person's feelings
about something

Express your views on the following aspect of smoking

Questions	SA	A	UD	D	SD
Smoking is injurious to health					
Cigarette contains nicotine					
Those who smoke looks charming					
Smokers can impress people					

SA Strongly Agree, A Agree, UD Undecided, D Disagree, SD Strongly Disagree

Bipolar Closed Ended Questions

Bipolar Questions

Bipolar questions are the ones having **two extreme** answers written at the opposite ends of the scale. The respondents are asked to mark their responses between those two.

Example of a Closed-Ended Bipolar Question

How would you describe the services of XYZ Corporation?

Efficient X Inefficient

Fast X Slow

Reliable X Unreliable

Please state your opinions on **national health insurance** on the scale below

	very much	some- what	neither	some- what	very much	
<i>interesting</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>boring</i>
<i>simple</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>complex</i>
<i>uncaring</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>caring</i>
<i>useful</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>useless</i>

4

Matrix

A **matrix question**—are really, multiple questions presented on a grid—is one of the most popular question types in online and traditional pen-and-paper surveys.

For survey creators, these bundled questions are easy to write and program. For respondents, they're generally easy to interpret (and answer) since the scales and answer options stay the same across all items.

2. How satisfied or dissatisfied are you with each of the following?

	Very satisfied	Somewhat satisfied	Neither satisfied nor dissatisfied	Somewhat dissatisfied	Very dissatisfied
The interaction with the sales staff	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your experience at the register	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The organization of the store	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The products offered in the store	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The price of the products	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The sizes available at the store	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Contingency (Dependent question)

5

A question that is answered only if the respondent gives a particular response to a previous question. This avoids asking questions to people that do not apply to them.

Do You smoke
Yes / No

If Yes, about how many times you smoke

- once
- 2 to 5 times
- 6 to 10 times
- 11 to 20 times
- more than 20 times in a day.

Contingency (Dependent question)

1. Do you have computer knowledge?

Yes ()

No ()

2. If 'yes' how long have you been using?

•From last 6 months ()

•From last 1 year ()

•From last 2 years ()

•From last 3-4 years ()

Advantages and Disadvantages of Close ended Questionnaire

Advantages of Close ended questionnaire:

1. The researcher is able to contact large numbers of people quickly, easily and efficiently using a postal questionnaire.
2. Questionnaires are relatively quick and easy to create, code and interpret (especially if closed questions are used).
3. A questionnaire is easy to standardise. For example, every respondent is asked the same question in the same way. The researcher, therefore, can be sure that everyone in the sample answers exactly the same questions, which makes this a very reliable method of research.
4. Questionnaires can be used to explore potentially embarrassing areas (such as sexual and criminal-matters) more easily than other methods.

Disadvantages of Close ended questionnaire:

1. The format of questionnaire design makes it difficult for the researcher to examine complex issues and opinions.
2. With a postal questionnaire, the researcher can never be certain the person to whom the questionnaire is sent actually fills it in.
3. Where the researcher is not present, it's always difficult to know whether or not a respondent has understood a question properly.
4. The researcher has to hope the questions asked mean the same to all the respondents as they do to the researcher.
5. The response rate (that is, the number of questionnaires that are actually returned to the researcher) tends to be very low for

Mixed Method

In some situations, you may have a partial list of answer choices, but you may still have some doubt or uncertainty about other possible responses. You can create a partially structured question such as the following:

Example of a Partially Structured Question

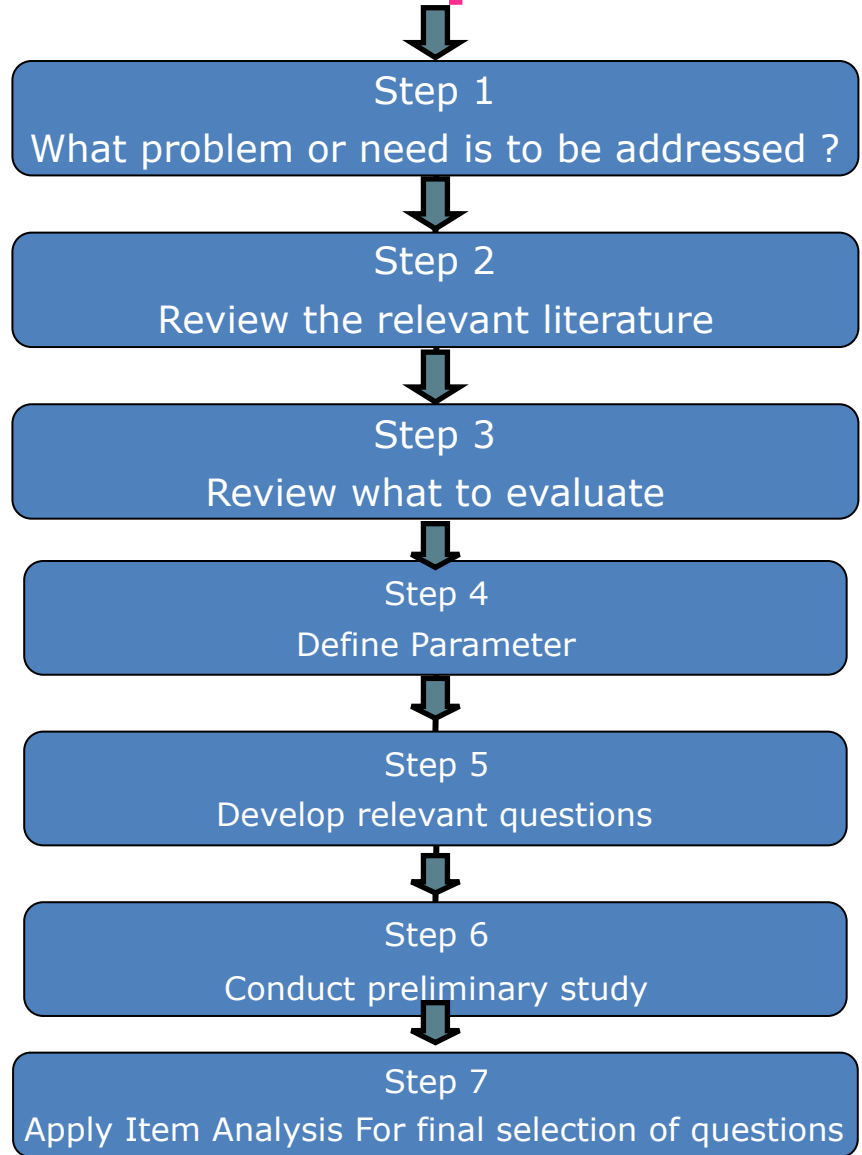
What purpose do you use web based resources?

- For research work
- To write assignments
- To improve subject knowledge
- For the purpose of seminar presentation

Any other (Please specify): 1. _____

2. _____

Steps in Questionnaire Development





**When to use a
Questionnaire?**

Using questionnaire depends upon

- ◉ **Type of information to be gathered**
- ◉ **Available resources for the experiment.**

Use in following circumstances

- **When resources and money are limited**
 - Although preparation cost may be high
 - but per unit evaluation inexpensive
- **Time is also an important resource that questionnaires can maximise**
- **Questionnaire through e-mail may cover more respondents**
- **When it is necessary to protect the privacy of the participants**



Issues in Designing Questionnaire

1. Determine the **Parameters** to be investigated
2. Prepare the **questions** to be asked
3. Select question **type** and **specify** the wording
4. Design the question **sequence** and overall questionnaire **layout**





Few issues regarding content of questionnaire

Ask about what you need to know

- Content Oriented
- Population Oriented

Will the respondent be able to answer your question

- Simple to Complex
- General to Specific
- well known



Will respondents want to answer the question

- Private questions
- silly questions



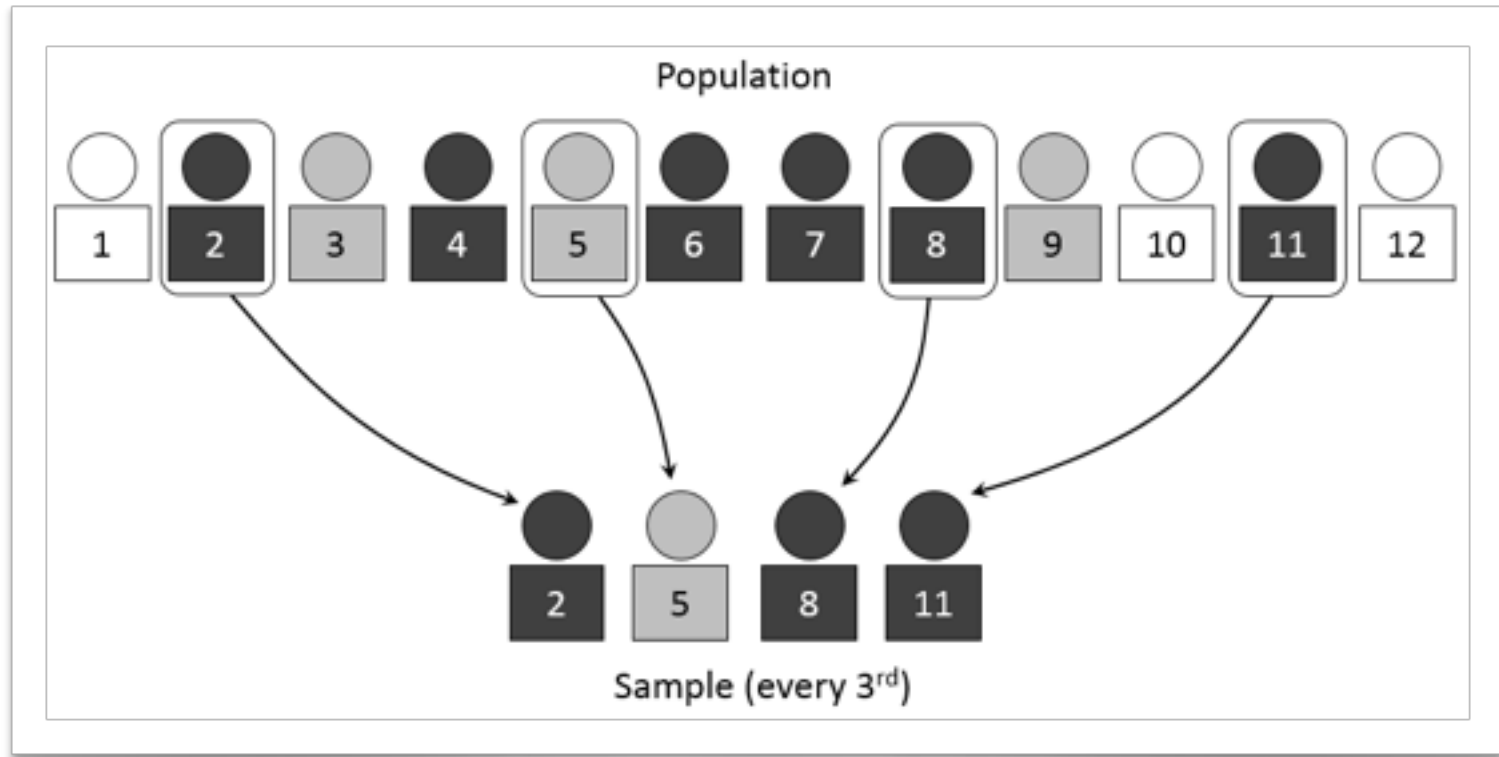
Key Issue in choosing sample

Respondents must
represent the
population



Homogenous Group

- : Similar characteristics
- : More Similar, accurate information
- : fulfill the purpose of questionnaires.





Suggestions for writing closed-ended items

- 1) Avoid **double-barreled** (Do you approve or disapprove of girls participation in outdoor activities?)
- 2) Provide all response options to a closed question and make them mutually exclusive
- 3) Avoid numeric intervals except when detail might discourage response (Annual parental income, number of beers consumed on last drinking occasion)
- 4) Use specific time frames (during this quarter)
- 5) Avoid acronyms, jargon, slang and technical terms
- 6) Use complete sentences (Sex? v Are you [male] or [female])

Be Specific, concise and unambiguous

Q. Have you been to
Auditorium Recently?

Yes No

Instead

Q. Have you been to
Auditorium in last two weeks?

Yes No



Do you agree that majority of people are leading a **sedentary** life style?

Yes No

Avoiding Leading Questions

Avoiding Double Questions

Q. Do you think that Ladies should eat less and exercise more

Yes No

What is proper way?

1 Do you think that ladies should eat less Y N

Q.2 Do you think that ladies should exercise more? Y N





Statistical Considerations

- The method of analysing data should be established before the questions are written
- If the developer does not know precisely how the responses will be analysed to answer each research question, the results are in jeopardy.

- Promise confidentiality in using data
- Respect privacy of the respondent
- Do not ask questions which you don't need
- Use some encouraging word before asking such questions

Confidentiality and Ethics

“At the end may I have your some personal information so that the responses you have given so far can be greatly understood in the light of your background”





Pre-test the Questionnaire

- Test a questionnaire with a small number of interviews before conducting your main interviews
 - Survey on the same kinds of people you will include in the main study.
 - Test run helps reveal unanticipated problems
 - It can help see if the interviewees are understanding your questions and giving useful answers.



Certain Example of Questionnaire

Personality Questions

Items

Strongly
Disagree

Strongly
Agree

1

2

3

4

5

I constantly worry about what people think about me

I am not frightened acting independently from the crowd

I feel threatened in a large group

I feel I am easily influenced by the behaviour of my friends

I feel there is a constant pressure on me to be popular

I feel free to be myself in socializing with the people

Merits and Demerits of Questionnaire

Merits of Questionnaire Method:

1. it's very economical.
2. It's a time saving process.
3. It covers the research in wide area.
4. It's very suitable for special type of responses.
5. It is most reliable in special cases.

Demerits of Questionnaire Method:

1. Through this we get only limited responses.
2. Lack of personal contact.
3. Greater possibility of wrong answers.
4. Chances of receiving incomplete response are more.
5. Sometimes answers may be illegible.
6. It may be useless in many problems.

Thank you.....

