Applied Qualitative Techniques in Management

 Answer sheet

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 Question No: 01

a) Discuss probationary research review stages in detail.

 b) How do we produce the data for data analysis also discuss their forms of analysis with suitable examples?

Answer a probationary research review stages

• Framing research questions, outlining the rationale for them, planning methods.

• Carrying out literature searches and reviewing relevant literature.

• Doing pilot research: collecting data or acquiring secondary data for analysis; producing an initial analysis.

 • Outlining a schedule of future work leading to completion of the thesis.

1 Framing research questions, outlining the rationale for them, planning methods.

The introduction is the part of the paper that provides readers with the background information for the research reported in the paper. Its purpose is to establish a framework for the research, so that readers can understand how it is related to other research

1. In an introduction, the writer should
2. create reader interest in the topic,
3. lay the broad foundation for the problem that leads to the study,
4. place the study within the larger context of the scholarly literature, and
5. reach out to a specific audience.

• Carrying out literature searches and reviewing relevant literature.

1.   Try to incorporate a sentence that begins with “The purpose of this study is . . .”
 This will clarify your own mind as to the purpose and it will inform the reader directly and explicitly.

2.Clearly identify and define the central concepts or ideas of the study. Some committee Chairs prefer a separate section to this end. When defining terms, make a judicious choice between using descriptive or operational definitions.

3.Identify the specific method of inquiry to be used

4.Identify the unit of analysis in the study

• Doing pilot research: collecting data or acquiring secondary data for analysis; producing an initial analysis.

b) How do we produce the data for data analysis also discuss their forms of analysis with suitable examples?

Answer b Definition

* Data analytics (DA) is the process of examining [data](https://searchdatamanagement.techtarget.com/definition/data) sets in order to draw conclusions about the information they contain, increasingly with the aid of specialized systems and software. Data analytics technologies and techniques are widely used in commercial industries to enable organizations to make more-informed business decisions and by scientists and researchers to verify or disprove scientific models, theories and hypotheses

To improve your data analysis skills and simplify your decisions, execute these five steps in your data analysis process:

To improve your data analysis skills and simplify your decisions, execute these five steps in your data analysis process:

1. Step 1: Define Your Questions. ...
2. Step 2: Set Clear Measurement Priorities. ...
3. Step 3: Collect Data. ...
4. Step 4: Analyze Data. ...
5. Step 5: Interpret Results.

### **Step 1: Define Your Questions**

In your organizational or business data analysis, you must begin with the right question(s). Questions should be measurable, clear and concise. Design your questions to either qualify or disqualify potential solutions to your specific problem or opportunity.

For example, start with a clearly defined problem: A government contractor is experiencing rising costs and is no longer able to submit competitive contract proposals. One of many questions to solve this business problem might include: Can the company reduce its staff without compromising quality?

### **Step 2: Set Clear Measurement Priorities**

This step breaks down into two sub-steps: A) Decide what to measure, and B) Decide how to measure it.

#### **A)** Decide What To Measure

Using the government contractor example, consider what kind of data you’d need to answer your key question. In this case, you’d need to know the number and cost of current staff and the percentage of time they spend on necessary business functions. In answering this question, you likely need to answer many sub-questions (e.g., Are staff currently under-utilized? If so, what process improvements would help?). Finally, in your decision on what to measure, be sure to include any reasonable objections any stakeholders might have (e.g., If staff are reduced, how would the company respond to surges in demand?).

#### **B)**Decide How To Measure It

Thinking about how you measure your data is just as important, especially before the data collection phase, because your measuring process either backs up or discredits your analysis later on. Key questions to ask for this step include:

* What is your time frame? (e.g., annual versus quarterly costs)
* What is your unit of measure? (e.g., USD versus Euro)
* What factors should be included? (e.g., just annual salary versus annual salary plus cost of staff benefits)

### **Step 3: Collect Data**

With your question clearly defined and your measurement priorities set, now it’s time to collect your data. As you collect and organize your data, remember to keep these important points in mind:

* Before you collect new data, determine what information could be collected from existing databases or sources on hand. Collect this data first.
* Determine a file storing and naming system ahead of time to help all tasked team members collaborate. This process saves time and prevents team members from collecting the same information twice.
* If you need to gather data via observation or interviews, then develop an interview template ahead of time to ensure consistency and save time.
* Keep your collected data organized in a log with collection dates and add any source notes as you go (including any data normalization performed). This practice validates your conclusions down the road.

### **Step 4: Analyze Data**

After you’ve collected the right data to answer your question from Step 1, it’s time for deeper data analysis. Begin by manipulating your data in a number of different ways, such as plotting it out and finding correlations or by creating a pivot table in Excel. A pivot table lets you sort and filter data by different variables and lets you calculate the mean, maximum, minimum and standard deviation of your data.

As you manipulate data, you may find you have the exact data you need, but more likely, you might need to revise your original question or collect more data. Either way, this initial analysis of trends, correlations, variations and outliers helps you  and any objections others might have.

During this step, data analysis tools and software are extremely helpful. Visio, Minitab and Stata are all good software packages for advanced statistical data analysis. However, in most cases, nothing quite compares to Microsoft Excel in terms of decision-making tools. If you need a review or a primer on all the functions Excel accomplishes for your data analysis, we recommend this

### **Step 5: Interpret Results**

After analyzing your data and possibly conducting further research, it’s finally time to interpret your results. As you interpret your analysis, keep in mind that you cannot ever prove a hypothesis true: rather, you can only fail to reject the hypothesis. Meaning that no matter how much data you collect, chance could always interfere with your results.

As you interpret the results of your data, ask yourself these key questions:

* Does the data answer your original question? How?
* Does the data help you defend against any objections? How?
* Are there any limitation on your conclusions, any angles you haven’t considered?

If your interpretation of the data holds up under all of these questions and considerations, then you likely have come to a productive conclusion. The only remaining step is to use the results of your data analysis process to decide your best course of action.

By following these five steps in your data analysis process, you make better decisions for your business or government agency because your choices are backed by data that has been robustly collected and analyzed. With practice, your data analysis gets faster and more accurate – meaning you make better, more informed decisions to run your organization most effectively.

Data Analysis Process:

Stage 1: Define Your Questions

In your authoritative or business information examination, you should start with the privilege question(s). Questions ought to be quantifiable, clear and compact. Structure your inquiries to either qualify or preclude likely answers for your particular issue or opportunity. For instance, start with an obviously characterized issue: An administration temporary worker is encountering increasing expenses and is not, at this point ready to submit serious agreement proposition. One of numerous inquiries to take care of this business issue may include: Can the organization decrease its staff without trading off quality?

Stage 2: Set Clear Measurement Priorities

This progression separates into two sub-steps: A) Decide what to gauge, and B) Decide how to quantify it.

A) Decide What to Measure

 Utilizing the administration contractual worker model, consider what sort of information you'd have to address your key inquiry. For this situation, you'd have to know the number and cost of current staff and the level of time they spend on vital business capacities. In addressing this inquiry, you likely need to respond to many sub-questions (e.g., Are staff presently under-used? Assuming this is the case, what process upgrades would help?). At last, in your choice on what to quantify, make certain to incorporate any sensible protests any partners may have (e.g., If staff are diminished, how might the organization react to floods sought after?).

B) Decide How to Measure It:

Contemplating how you measure your information is similarly as significant, particularly before the information assortment stage, in light of the fact that your estimating procedure either backs up or dishonors your investigation later on. Key inquiries to pose for this progression include:

What is your time period? (e.g., yearly versus quarterly expenses)

What is your unit of measure? (e.g., USD versus Euro)

What components ought to be incorporated? (e.g., simply yearly compensation versus yearly pay in addition to cost of staff benefits)

Stage 3: Collect Data:

With your inquiry plainly characterized and your estimation needs set, presently it's an ideal opportunity to gather your information. As you gather and arrange your information, make sure to remember these significant focuses:

Before you gather new information, figure out what data could be gathered from existing databases or sources available. Gather this information first.

Decide a record putting away and naming framework early to help all entrusted colleagues work together. This procedure spares time and forestalls colleagues from gathering a similar data twice.

On the off chance that you have to accumulate information by means of perception or meetings, at that point build up a meeting format early to guarantee consistency and spare time.

Keep your gathered information composed in a log with assortment dates and include any source notes as you go (counting any information standardization performed). This training approves your decisions not far off.

Stage 4: Analyze Data:

After you've gathered the correct information to address your inquiry from Step 1, it's the ideal opportunity for more profound information examination. Start by controlling your information in various manners, for example, plotting it out and discovering relationships or by making a turn table in Excel. A rotate table allows you to sort and channel information by various factors and lets you compute the mean, most extreme, least and standard deviation of your information – JUST BE SURE TO AVOID THESE FIVE PITFALLS OF STATISTICAL DATA ANALYSIS.

As you control information, you may discover you have the specific information you need, yet more probable, you may need to modify your unique inquiry or gather more information. In any case, this underlying investigation of patterns, relationships, varieties and exceptions encourages you FOCUS YOUR DATA ANALYSIS ON BETTER ANSWERING YOUR QUESTION and any protests others may have.

During this progression, information examination devices and programming are very useful. Visio, Minitab and Stata are for the most part great programming bundles for cutting edge measurable information examination. Be that as it may, much of the time, nothing very thinks about to Microsoft Excel as far as dynamic apparatuses. On the off chance that you need an audit or introduction on all the capacities Excel achieves for your information investigation, we suggest this HARVARD BUSINESS REVIEW CLASS.

Stage 5: Interpret Results

Subsequent to examining your information and potentially directing further exploration, it's at last an ideal opportunity to decipher your outcomes. As you decipher your investigation, remember that you can't ever demonstrate a theory valid: rather, you can just neglect to dismiss the speculation. Implying that regardless of how much information you gather, chance could generally meddle with your outcomes.

As you decipher the consequences of your information, ask yourself these key inquiries:

Does the information answer your unique inquiry? How?

Does the information assist you with safeguarding against any complaints? How?

Are there any restriction on your decisions, any edges you haven't thought of?

On the off chance that your translation of the information holds up under these inquiries and contemplations, at that point you likely have arrived at a beneficial resolution. The main residual advance is to utilize the consequences of your information investigation procedure to choose your best game-plan.

By following these five stages in your information investigation process, you settle on better choices for your business or government office in light of the fact that your decisions are supported by information that has been heartily gathered and dissected. With training, your information examination gets quicker and progressively precise – which means you improve, increasingly educated choices to run your association most adequately.

Forms of Data analysis:

**Descriptive Analysis**

**Illustrative examination is a knowledge into the past. This factual strategy does precisely what the name recommends - "Depict". It takes a gander at information and dissects past occasions and circumstances for getting a thought of how to move toward what's to come. It permits us to gain from past practices, and discover how they may impact future execution.**

**2. Regression Analysis**

**Relapse examination permits displaying the connection between a reliant variable and at least one free factors. In information mining, this procedure is utilized to foresee the qualities, given a specific dataset. For instance, relapse may be utilized to foresee the cost of an item, when contemplating different factors. Relapse is one of the most mainstream sorts of information investigation strategies utilized in business, information driven advertising, money related gauging, and so forth.**

**3. Factor Analysis**

**Factor examination is a relapse based information investigation procedure, used to locate a fundamental structure in a lot of factors. It goes with finding new free (factors) that depict the examples and models of connections among unique ward factors.**

**4. Dispersion Analysis :**

**Is a so basic strategy utilized in information mining yet at the same time has a job there. Scattering is the spread to which a lot of information is extended. It is a strategy of depicting how expanded a lot of information is. The proportion of scattering encourages information researchers to consider the inconstancy of the things.**

**5. Discriminant Analysis**

**Discriminant investigation is one of the most impressive arrangement methods in information mining. The discriminant investigation uses variable estimations on various gatherings of things to underline focuses that recognize the gatherings.**

**6. Time Series Analysis**

**You realize that, in pretty much every logical zone, estimations are executed after some time. These posts lead to an assortment of sorted out information known as time arrangement. A genuine case of time arrangement is the every day estimation of a securities exchange file. Time arrangement information examination is the way toward displaying and clarifying time-subordinate arrangement of information focuses. The objective is to draw all significant data (measurements, rules, and examples) from the state of information.**

**7. Fake Neural Networks**

**Almost certainly this is one of the most well-known new and current kinds of information examination techniques out there. Fake Neural Networks (ANN), frequently just called a "neural system", present a mind similitude for data handling. These models are naturally enlivened computational models. They comprise of an interconnected gathering of fake neurons and procedure data utilizing a calculation approach.**

**8. Choice Trees**

**This is another extremely mainstream and present day arrangement calculation in information mining and AI. The choice tree is a tree-formed outline that speaks to an arrangement or relapse model. It isolates an informational collection into littler and littler sub-datasets (that contain occasions with comparable qualities) while simultaneously a related choice tree is ceaselessly evolved. The tree is worked to show how and why one decision may prompt the following, with the assistance of the branches.**

 **9. Developmental Programming**

**Developmental programming in information mining is a typical idea that consolidates various kinds of information examination utilizing transformative calculations. Generally well known of them are: hereditary calculations, hereditary programming, and co-transformative calculations.**

**10. Fluffy Logic**

**Fluffy rationale is applied to adapt to the vulnerability in information mining issues. Fluffy rationale displaying is one of the likelihood based information examination strategies and procedures.**

Question No: 02

 a) Differentiate Flexibility and Versatility in qualitative research studies.

b) Discuss different Types of Interview & whom to interview in qualitative research analysis.

Answer a . Flexibility and Versatility in qualitative research.

 Flexibility and versatilty qualitative research is allowed the flow of conversation to dictate the order of questions asked, rather than following the ordering of the questions on the schedule. I revisited my questions repeatedly throughout the data collection period and when topics reached a saturation point, I de-emphasized their importance on the interview schedule and only asked them if they came up as salient through our conversations if time allowed.

b) Discuss different Types of Interview & whom to interview in qualitative research analysis.

Answer. Types of interview

* Group interview
1. you can assess a wide range of skills.
2. You can assess interpersonal skills and teamwork.
3. It’s quicker (than assessment days).
4. You can interview all candidates at once.
5. It’s a good method to cull candidates early on.
6. Sparks competition.
* Video interview
1. It’s quicker than a face-to-face interview.
2. It’s cheaper than a face-to-face interview.
3. It’s less effort for you and the candidate.
4. You can reach long-distance candidates.
* Telephonic interview
1. It’s quicker than a face-to-face interview.
2. It’s cheaper than a face-to-face interview.
3. It’s less effort for you and the candidate.
4. You can assess the candidate’s telephone manner.
5. You might have to schedule it outside of working hours (if their employers don’t know).
6. It’s difficult to build as much rapport via the telephone.
* Personal interview
1. No personal biases.
2. The chance to compare different opinions.
3. More chance to get notes (while others talk).
4. All relevant people meet at the same time.
5. Weak interviewers might need back-up.

 Question No: 03

a) Describe the Qualities of good interviewer and interviewee during interview.

b) Differentiate Probability & Non-Probability random sampling.

Answer a . Qualities of good interviewer

1. Knowledge about the job

A good interviewer is one who has sufficient knowledge about the job for which he/she is taking the interview.

If the interviewer lacks adequate knowledge regarding job duties, responsibilities, and qualifications required, it would not be possible for him to select the best candidate.

1. Training and experience

Interviewers should have adequate experience and [necessary training to conduct an interview effectively and efficiently](https://www.iedunote.com/training).

1. Listening attentively

Good interviewers are attentive listeners. They listen more than they talk.

The listening tendency helps the interviewer to make a better evaluation. Many interviews fail because the interviewer talks more than listening.

1. Emotional maturity

The interviewer should be free from biases and undue emotions. He should have the ability to judge the situation based on logic and wisdom.

1. Control of anger and aggression

Control of anger, arrogance, or aggression is a very important trait of successful interviewers. They should not be aggressive or intimidating.

They should neither miss-guide the candidate nor should react to the applicant’s comments. When the candidate strays from the track of inquiry, a good interviewer guides him back to the point.

1. Empathetic attitude

Empathy is the ability to understand or share the feelings or attitudes of others. The empathetic attitude of the interviewer helps to relieve the applicant’s anxiety and nervousness.

Good interviewers show empathy to the interviewee using a friendly and warm tone.

b) Differentiate Probability & Non-Probability random sampling

answerb Probability Sampling

• The sampling method in which all the members of the population has a pre-specified and an equal chance to be a part of the sample.

 • This technique is based on the randomization principle, wherein the procedure is so designed, which guarantees that each and every individual of the population has an equal selection opportunity.

 • This helps to reduce the possibility of bias.

 • The methods of probability sampling:

1. Simple Random Sampling
2. Stratified Sampling
3. Cluster Sampling
4. Systematic Sampling.

Non-Probability Sampling

• When all the individuals of the population are not given an equal opportunity of becoming a part of the sample, the method is said to be Non-probability sampling.

• There is no probability attached to the unit of the population and the selection relies on the subjective judgment of the researcher.

 • The methods of non-probability sampling:

1. Convenience Sampling
2. Quota Sampling
3. Judgment or Purposive Sampling
4. Snowball Sampling

 Question No:04

1. Classify the different categories of Questionnaire constructed for different studies ?

 Answer a Structured Interviews:

Structured interviews are defined as research tools that are extremely rigid in their operations are allows very little or no scope of prompting the participants to obtain and analyze results. It is thus also known as a standardized interview and is significantly [quantitative](https://www.questionpro.com/blog/quantitative-market-research/) in its approach. Questions in this interview are pre-decided according to the required detail of information.

Structured interviews are excessively used in [survey research](https://www.questionpro.com/tour/survey-research.html) with the intention of maintaining uniformity throughout all the interview sessions.

They can be closed-ended as well as open-ended – according to the type of target population. Closed-ended questions can be included to understand user preferences from a collection of answer options whereas open-ended can be included to gain details about a particular section in the interview

* Semi-Structured Interviews:

Semi-structured interviews offer a considerable amount of leeway to the researcher to probe the respondents along with maintaining basic interview structure. Even if it is a guided conversation between researchers and interviewees – an appreciable flexibility is offered to the researchers. A researcher can be assured that multiple interview rounds will not be required in the presence of structure in this type of research interview.

Keeping the structure in mind, the researcher can follow any idea or take creative advantage of the entire interview. Additional respondent probing is always necessary to garner information for a research study. The best application of semi-structured interview is when the researcher doesn’t have time to conduct research and requires detailed information about the topic.

* Unstructured Interviews:

Also called as in-depth interviews, unstructured interviews are usually described as conversations held with a purpose in mind – to gather data about the research study. These interviews have the least number of questions as they lean more towards a normal conversation but with an underlying subject.

The main objective of most researchers using unstructured interviews is to build a bond with the respondents due to which there are high chances that the respondents will be 100% truthful with their answers. There are no guidelines for the researchers to follow and so, they can approach the participants in any ethical manner to gain as much information as they possibly can for their research topic.

Since there are no guidelines for these interviews, a researcher is expected to keep their approach in check so that the respondents do not sway away from the main research motive. For a researcher to obtain the desired outcome, he/she must keep the following factors in mind:

* Intent of the interview.
* The interview should primarily take into consideration the participant’s interest and skills.
* All the conversations should be conducted within permissible limits of research and the researcher should try and stick by these limits.
* The skills and knowledge of the researcher should match the purpose of the interview.
* Researchers should understand the do’s and don’ts of unstructured interviews
1. Describe the Qualities of good Questionnaire & Questions adopted in research studies?

Answer Qualities 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.
4. It is attractive in appearance, nearly arranged and clearly stated or printed.
5. Directions are clear and complete, important terms are clarified.
6. The questions are objective, with no clues, hints or suggestions.
7. Questions are presented in a order from simple to complex.
8. Double barrelled questions or putting two questions in one question are also avoided.

Questions adopted in research studies

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.
6. 6ough this we get only limited responses.
7. Lack of personal contact.
8. Greater possibility of wrong answers.
9. Chances of receiving incomplete response are more.

10 Sometimes answers may be illegible.

11.It may be useless in many problems.