

* Research Fundamental.

classmate

Date _____

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Chapter - 1.

Introduction to the Research

Question Solution. of GCES (RF).

(Qno. 16)

What do you mean by Research? What are the types of research? Explain any one.

↳ Research is a systematic and organized effort to gain new knowledge, solve problems, or validate existing theories through a structured process.

The types of research are :-

- i) Basic Research
- ii) Applied Research
- iii) Quantitative Research
- iv) Qualitative Research.

v) Qualitative Research

Qualitative Research is like digging deep to understand people's thoughts, feelings and experiences in detail. Instead of using numbers and statistics, it focuses on the richness and complexity of human behaviour. It aims to explore and understand people's perspectives, experiences, and the meaning they give to their lives.

It uses methods like interviews, focus groups and observation. The data collected

Is usually in the form of words, images, or video recordings. The goal is to provide a detailed understanding of a topic.

(Qno. 1 (b))

Ques

Compare research with project. What are the reasons for doing research? Explain in brief.

↳ Research

Project

- ① Research is a collaborative project is a careful lone or individual study conducted using enterprise that is a systematic approach carefully planned to and scientific methods, achieve a particular aim.
- ② It focus on solving real world problems It focus on understanding or modeling real-world phenomena.
- ③ It is process oriented It is product oriented
- ④ It can be seen in a variety of contexts It is mainly carried out in academic including businesses
- ⑤ It is shorter-term It is longer-term

The reasons for doing research are :

i). Discover New knowledge

To find out new facts or insights that we don't know before

ii) Solve Problems

To address specific issues or challenges whether in science, technology or other field.

iii) Improve practices

To enhance existing methods, processes or products based on evidence and data

iv). Support Innovation

To develop new ideas, technologies or approaches that can lead to advancements and improvements in various areas

v). Contribute to knowledge

To add the collective knowledge base of a field, helping others build upon previous work.

Qno. 2(a)

What is literature review in research?

How do you conduct a literature review?

A literature review is a critical systematic analysis of existing scholarly articles, books, reports and other sources on a particular topic.

The steps to conduct literature Review :-

i) Define the scope of the review.
clearly define the research question or objectives of the literature review

ii) Conduct preliminary searches
Explore database, academy journal and relevant sources to get an initial understanding of the literature landscape

iii) Select search keywords and phrases
Identify and refine the keywords and phrases that are directly related to the research.

iv) Conduct a systematic search,
Perform a systematic search using the selective keywords and phrases.

v) Organized and Catalog articles
Develop a systematic approach to organize and catalog selected articles

vi) Evaluate and critically appraise sources
Critically evaluate the quality and reliability of selected sources

vii) Identify gap and Controversies
Evaluate the literature to identify gaps, controversies on unsolved questions

viii) Write the literature review.

Draft the literature review using a coherent structure that includes an introduction, main body and conclusion.

ix) Revise and refine

Seek feedback from peers, mentors, or colleagues to refine the review.

→ Include proper citations

properly cite all sources used in the literature review using a consistent citation style.

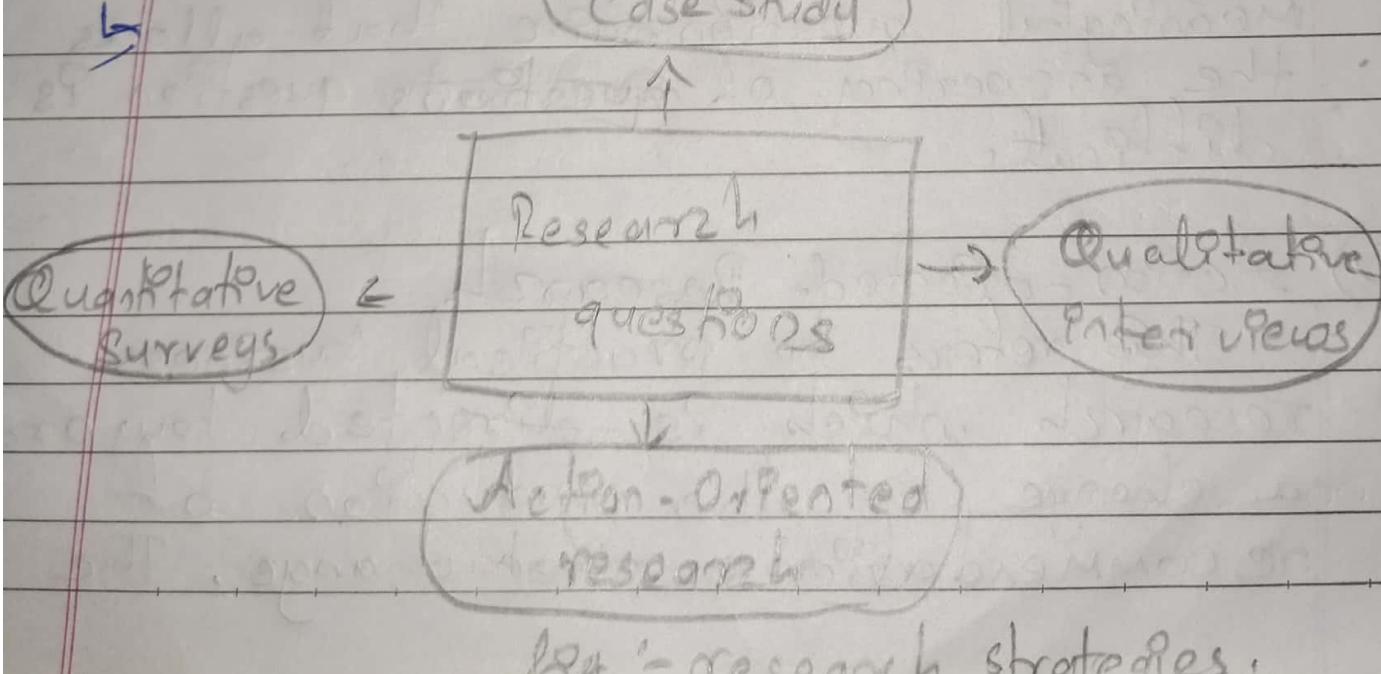
x) Update and Maintain the Review

Maintain and organize record of references and continue to monitor development in the field.

(Qno. of Ch).

Explain in brief about the different strategies to answer research question?

Case study



↳ - research strategies.

i) Case Study :-

This focuses on an in-depth investigation of a single case or a small number of cases. In Case-Study research generally, information is sought from different sources and through the use of different types of data such as observations, survey, interviews etc.

ii) Qualitative Interviews :-

This is the most widely used method for gathering data. Interviews allow access to rich information. They require extensive planning concerning the development of the structure, decisions about who to interview and how.

iii) Quantitative Survey :-

This is a widely used method in business research and allows access to significantly high numbers of participants although the development of questions may appear easy, to develop a meaningful questionnaire that allows the answering of research question is difficult.

iv) Action-oriented Research

This refers to practical business research which is directed towards a change or the production of recommendations for change. The

project is often carried out by insiders.
After the project, participants will have
to implement the change.

Qno. 2 (b) (OR) ques

What are the different types of referencing systems? Explain any one type of Referencing systems and citation.

b.

Q no. 3(a)

How do you develop research questions in Research? How can a researcher evaluate a research process?

↪ Developing research question :-

1. Identify a Broad Topic

choose a general area of interest related to your field.

2. Conduct preliminary Research

Read existing research, articles and books to understand what has already been studied and where gaps might exist.

3. Narrow Down the topic

Refine the broad topic into a more specific area.

4. Formulate initial Research Questions

Make sure your questions are specific enough to be manageable.

5. Align with Objectives

The question should contribute to your field and address significant issues.

To Evaluate a research process :-

1. Define clear objective

Ensure that the research objectives

align with the research question and overall goals of the study.

2. Review Methodology

Assess whether the chosen research methods are suitable for answering the research question.

3. Assess Data Collection

Ensure the data collected is reliable, valid and relevant to the research question.

4. Review Documentation and Reporting

Ensure that the research findings and methodology are reported clearly and comprehensively.

5. Seek Peer Review

Obtain feedback from peers or experts in the field to assess the quality and credibility of the research.

(Q no. 3(b))

What are the different data generation methods in research process? Explain the types of method triangulation in a research project.

b) The different data generation method in research process.

9) Surveys and questionnaire

Use structured questions with fixed responses, distributed via paper, online or phone

10) Interviews

Conduct face to face, telephone or video interviews with open-ended questions.

11) Document Analysis

Review and interpret text such as reports, letter or archives.

12) Ethnography

Researchers spend extended periods with a group, participating and observing their daily lives

13) Content Analysis

Systematically code and analyze textual or visual data.

The types of method triangulation in a research project :-

1) Data Triangulation.

To use different sources of data to gain a comprehensive understanding of a phenomenon

2) Investigator Triangulation

To involve multiple researchers or

analysts in the data collection and analysis process to minimize individual biases.

iii) Theory Triangulation

To apply different researchers independently analyze interview transcripts and then compare findings.

iv) Theory Triangulation

To apply different theoretical perspectives to interpret the same data, providing a richer understanding.

v. Methodological Triangulation

To use various methods to collect and analyze data on the same phenomenon enhancing the robustness of the findings.

Qno. 3(b) (PQR ques)

Explain the different types of data analysis in research project.

b) The different types of data analysis in research project :-

c) Descriptive analysis

Used to summarize and describe the basic features of the data. This includes calculating measures of central tendency like the mean, median and mode.

iii) Inferential analysis

It goes a step further by making predictions or generalizations about larger population based on sample data. It is commonly used to explore relationships between variables and predict outcomes.

iv) Correlational analysis

It focuses on examining the relationships between two or more variables to understand how they are related. By calculating correlation coefficients and using scatter plots.

v) Qualitative analysis

It is employed to interpret non-numeric data such as text, images or audio recordings. It identifies patterns and themes within qualitative data and Content analysis.

vi) Mixed Method analysis

It integrates both qualitative and quantitative data to provide a comprehensive view of the research problem. This approach can involve sequential explanatory methods.

vii) Statistical Modeling

It involves creating and using models to understand and predict outcomes based on data. It helps researchers to examine complex relationships and make predictions.

(Q no. 46).

Who are the participants of research?
What are the different laws which must be followed by an ethical researcher.

↳ Participants are individuals who voluntarily take part in research studies, experiments, surveys or other forms of investigation conducted by researchers.

The different laws which must be followed by an ethical researcher are :-

i) Informed Consent:-

Researchers are required to obtain informed consent from participants, which involves providing detailed information about the purpose, procedures, risks and benefits of the study.

ii) Privacy and confidentiality:-

Researchers must ensure that participants' personal information and data are kept confidential and protected from unauthorized access.

iii) Minimization of harm:-

Researchers have responsibility to minimize any potential risks or

discomfort to participants. This may involve monitoring participants' well-being throughout the study.

Q.v) Institutional review:-

Many research institutions have ethics review boards or committees tasked with reviewing research proposals to ensure they meet ethical standards.

Q no. 4(b)

What are the responsible respondents of a research project? What are the responsibilities of an ethical researcher?

↳ Respondents are the individuals or entities who provide data by answering questions or participating in data collection activities.

The responsibilities of an ethical researcher are:-

Q) Conducting research with integrity:-

Researchers must conduct their studies honestly and transparently, avoiding fabrication, falsification, or plagiarism of data.

Q) Protecting participant confidentiality:-

Researchers must take measures to protect the confidentiality of participants.

Information and data.

(iii) Minimizing harm:-

Researchers should take steps to minimize any potential risks or discomfort to participants, including providing support services.

(iv). Respecting diversity and cultural sensitivity:

Researchers must consider the diverse backgrounds, beliefs and values of participants.

v). Adhering to ethical guidelines and regulations:-

Researchers should familiarize themselves with relevant ethical guidelines, laws and regulations governing research in their field.

(Q no. 56)

What is a research proposal? Why do we need to write research proposal

A research proposal is a formal document that outlines a plan for conducting a research study. It provides a structured framework for what the research will involve, including the purpose, methodology and significance of the study.

We need to write a Research proposal because :-

i) To clarify Research objectives,

Writing a proposal helps in clearly defining what the research aims to achieve.

ii). To Guide the Research process.

It serves a roadmap for the research, detailing the methodology and steps to be followed.

iii). To Secure funding

Many Research process require financial support. A well-written proposal is essential for applying funding from institutions or agencies.

iv). Anticipate challenges.

The proposal allows researchers to anticipate potential challenges and plan solutions.

v). Provides a framework of Evaluation

It sets the criteria and benchmarks for evaluating the research's progress and outcomes

vi). Facilitates Communication

A research proposal communicates the research plan to stakeholders, including advisors, collaborators and potential sponsors.

No. 5(b).

Highlighting the major component of Research proposal, write a proposal on "Establishing an IT Park in Gandaki Province"

↳ Title :

Establishing an IT Park in Gandaki Province

Abstract :

This proposal outlines a study to evaluate the feasibility of establishing an IT park in Gandaki province. The proposed research aims to assess the economic, technological, and social impacts of such a development, identify potential challenges for successful implementation.

Introduction :-

Background

Gandaki province, located in Central Nepal, has shown significant growth potential in various sectors. However, the IT industry remains underdeveloped compared to other regions. Establishing an IT park could stimulate local economic development, create jobs and attract investments.

Problem Statement

Despite the potential benefits, there is a lack of comprehensive research on the

Feasibility and Impact of an IT park in Gandaki Province.

Research Questions :-

- 1) What are the economic benefits of establishing an IT park in Gandaki province?
- 2) What are the potential challenges and risks associated with the development?

Literature Review :-

The literature review will cover existing research on IT parks, their economic impact and successful case studies from other regions. It will also include studies on regional development, and infrastructure needs.

Research Objectives

1. To assess the current state of IT Infrastructure and resources in Gandaki province.
2. To evaluate the potential economic and social impacts of establishing an IT park.
3. To provide recommendations for stakeholders on the development and management of the IT park.

Methodology.

The study will involve a quantitative analysis to gather and assess numerical data related to the current state of IT

infrastructure, economic indicators and workforce availability in Ganta Kp province. It will include surveys distributed to local business, government agencies and potential investors to gather information on existing resources.

Significance and Impact

The research will provide valuable insights into the feasibility of establishing an IT park in Ganta Kp Province, contributing to regional economic development, job creation and technological advancement.

Timeline

1) Month 1 - 2

Literature review and preliminary data collection

2) Month 2 - 4

Data Collection through surveys and interviews

3) Month 5

Data analysis and interpretation

4) Month 6

Drafting and reviewing the final report

5) Month 7

Presentation of findings and recommendations

Budget :

Personal : Research assistants, data

analysts, and administrative support

Data Collection : Costs for Surveys, Interviews and travel .

- Data Analysis : Software and analytical tools
- Miscellaneous : Printing, dissemination and reporting.

References :-

- Previous studies of IT parks, regional development reports and economic analysis paper

(Qno. 66)

What is research report? Why do we need to write a research report?

↳ A research report is a detailed document that presents the findings, analysis and conclusions of a research study.

We need to write a Research report because :

i) To Communicate Findings.

It allows researchers to share their findings with the academic community, stakeholders and the public.

ii). Documentation of Research.

It provides a permanent record of the research process, methods and outcomes.

iii). To Contribute to knowledge

It helps others build on their work, challenge their findings or use their results for further studies.

v. To support Decision-Making

It often informs decision-making in various contexts, such as policy development and business strategy.

vi. Accountability and Evaluation.

It ensures that the research is conducted systematically and ethically.

vii. Educational purpose.

For academic purposes, it serves as a learning tool for students and researchers to understand and apply research methodologies.

Qno. 6 (b)

What is research paper? Differentiate peer-reviewed article with report.

A research paper is a detailed document that presents the findings of a study or investigation into a specific topic.

Differentiate between peer-reviewed article and report :-

peer-reviewed article

report

i) It is a scholarly paper. It is a detailed account of research findings that has been evaluated by experts in the field before publication. Specific stakeholders.

- Q9. It ensures the research meets academic standards and is valid.
- It focuses on documenting findings.
- Q10. It is published in specialized academic journals.
- It is published by organizations, institutions or agencies.
- Q11. It aims to add new insights or discoveries to the academic field.
- It aims to report on the outcomes of a specific research project.
- v). Its acceptance is based on the quality of the research - often involving multiple peer reviews.
- It focuses on meeting the needs of specific stakeholders rather than academic standards.

Qno. 7(a)

Write short notes on.

1) GPs in Research

↳ 1st P (Purpose)

It defines the aim and objectives of the research. It clarifies what you intend to achieve with your study.

↳ 2nd P (Plan)

It outlines the methodology and approach. It describes how you will conduct your research.

- 3rd P (Perspective)

It consider the theoretical framework and viewpoint. It discuss the theoretical foundations guiding your research.

- 4th P (Parameters)

It defines the scope and limitations. It specify what is included and excluded in your study.

- 5th P (Proof)

It present evidence and findings. It share the results of your research.

- 6th P (Publication)

It share your research with the academic community. It discuss avenues for dissemination and sharing findings.

b) Conceptual framework of research process

A Conceptual framework in research process serves as the foundation upon which a study is built. It provides a roadmap for researchers, guiding them through the exploration, analysis and interpretation of their findings.

Conceptual frameworks in research proposal are crucial because they:-

- It helps to organize thoughts and Ideas

by outlining key concepts, variables and relationships

- p) It provide structure of a study, Scope and boundaries within the research.
- pp) It offers guidance for Data Collection and analysis
- q) It facilitate communication and understanding among scholars
- r) It contribute to the advancement of knowledge.

c) Plagiarism

Plagiarism is the act of presenting someone else's work or ideas as your own without proper acknowledgement, is a serious ethical violation in academic and research contexts. As researchers, it is imperative to uphold integrity and ensure originality in our work. If it can lead to legal consequences of copyrighted material is used without permission. It damages your reputation and undermines trust in your work.

To avoid plagiarism, Always give credit to the original authors when using their

Ideas or direct quotes. Rephrase ideas in your own words and still cite the original source. Place direct quotes in quotation marks and include citation. Use plagiarism detection tools to ensure your work is original. It's important to cite sources and be honest about where information comes from to maintain integrity and credibility in your work.