Slide 1: What is Research and Types, Process of Research

1. **What is research?**

   - Research is a systematic investigation to discover or revise facts, theories, and applications.

2. **What are the different types of research?**

   - Qualitative and quantitative research. Qualitative focuses on concepts and experiences; quantitative deals with numbers and statistics.

3. **What is the research process?**

   - Identifying a problem, reviewing literature, formulating a hypothesis, designing the study, collecting data, analyzing the data, and reporting findings.

4. **What is the significance of defining a research problem?**

   - It sets the direction for your entire study, ensuring you stay focused.

5. **How do you distinguish between basic and applied research?**

   - Basic research is for knowledge without immediate application; applied research aims to solve specific problems.

6. **What role does a literature review play in the research process?**

   - It helps understand existing knowledge, identify gaps, and refine research questions.

Slide 2: Problem Identification

1. **What is problem identification in research?**

   - Finding and clearly defining the issue to be investigated.

2. **What are the common sources of research problems?**

   - Personal experiences, existing literature, current events, and practical needs.

3. **How can a researcher ensure that the identified problem is researchable?**

   - Ensure the problem is specific, measurable, and feasible within given resources and time.

4. **What are some strategies for narrowing down a broad research problem?**

   - Focus on a specific aspect, set clear boundaries, and ask precise questions.

5. **Why is it important to review existing literature before finalizing a research problem?**

   - To understand what's already known, avoid duplication, and identify knowledge gaps.

Slide 3: Literature Review

1. **What is a literature review?**

   - A comprehensive summary of previous research on a topic.

2. **What are the purposes of conducting a literature review?**

   - Provide context, identify gaps, and show how your study contributes to the field.

3. **How do you find relevant literature for your review?**

   - Search academic databases, libraries, and reputable journals using relevant keywords.

4. **What are the key steps in conducting a literature review?**

   - Identify keywords, search for sources, summarize findings, and organize information thematically or chronologically.

5. **What sources can be used for a literature review?**

   - Academic journals, books, theses, conference papers, and credible websites.

6. **Why should popular publications be avoided in a literature review?**

   - They lack the rigor and credibility of peer-reviewed academic sources.

7. **What criteria should be used to evaluate the reliability of sources?**

   - Author's credentials, publication date, source credibility, and peer-review status.

8. **What is the importance of synthesizing literature in a review?**

   - Combining sources to provide a comprehensive understanding of the topic, identifying patterns and relationships.

9. **How should you reference sources in a literature review?**

   - Use consistent citation styles like APA, MLA, or Chicago to give credit and avoid plagiarism.

10. **What are some common tools for managing references?**

    - EndNote, Zotero, and Mendeley help organize and format citations.

Slide 4: Methodology

1. **What is the scientific method?**

   - A series of cyclic steps: observing a phenomenon, formulating tentative explanations, experimenting to rule out alternatives, and refining explanations.

2. **What are the basic elements of the scientific method?**

- Empiricism (observation and evidence), determinism (events follow regular laws), and skepticism (propositions are open to critique).

3. **What is a hypothesis?**

- A specific, testable statement predicting what is expected to happen in a study.

4. **What are independent and dependent variables?**

- Independent variables cause or influence outcomes; dependent variables are the outcomes affected by independent variables.

5. **What are the main steps in testing a hypothesis?**

- Develop a testable hypothesis, conduct observations or experiments, and analyze the results.

6. **What are the limitations of the scientific method?**

- It cannot prove or refute the existence of supernatural entities or make value judgments.

7. **What are some ethical considerations in conducting research?**

- Informed consent, beneficence (do no harm), respect for anonymity and confidentiality, and respect for privacy.

8. **What is the importance of measuring variables?**

- Assigning numbers to indicate levels of variables helps in quantifying and analyzing research data.

9. **Why might some studies not have hypotheses?**

- Some studies are exploratory and aim to gather insights rather than test specific predictions.

10. **How does refining and retesting hypotheses contribute to research?**

- It leads to new, more specific hypotheses and ensures rigorous testing of revised hypotheses.

These questions and answers should cover the key points from your slides and help you prepare for your viva.