



NOTE OF LESSION ON:

ECO 392 – RESEARCH METHODS IN ECONOMICS 11 – 3 credits

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Course Instructor: Vitalis Duruobi

Course Duration: 4 weeks

Course Contact Periods: 8 periods

Course Hour(s): 45 Hours

WEEK ONE:

Lesson 1: Introduction to Research Methods

Objective: The objective of this lesson is to introduce students to the fundamentals of research methods, emphasize the importance of research in academia, and provide an overview of different research methods commonly used in various disciplines.

Importance of Research in Academia:

Advancing Knowledge: Research is the cornerstone of academic progress. It enables scholars to explore new ideas, challenge existing theories, and contribute to the growth of knowledge in their respective fields.

Problem Solving: Research helps in identifying and solving real-world problems. Through systematic investigation, researchers can develop solutions to complex issues and improve the quality of life.

Critical Thinking and Analysis: Engaging in research cultivates critical thinking skills among students. It encourages them to evaluate information critically, analyze data, and draw logical conclusions.

Career Advancement: Research experience is highly valued in academia and various industries. It enhances students' resumes, opens up opportunities for grants and scholarships, and positions them for success in their careers.

Overview of Different Research Methods:

Quantitative Research: This method involves the collection and analysis of numerical data to understand phenomena and test hypotheses. It relies on statistical techniques for data analysis and often employs surveys, experiments, or secondary data analysis.

Qualitative Research: Qualitative research focuses on exploring and understanding social phenomena through in-depth examination. It emphasizes subjective experiences, perceptions, and meanings, often using methods such as interviews, observations, or content analysis.

Mixed-Methods Research: This approach combines elements of both quantitative and qualitative research. Researchers employ diverse methods to gain a comprehensive understanding of a phenomenon, addressing research questions from multiple perspectives.

Experimental Research: Experimental research involves manipulating variables to examine cause-and-effect relationships. It is characterized by controlled settings, random assignment, and rigorous data analysis to establish causation.

Survey Research: Surveys gather data from a sample of individuals to understand attitudes, behaviors, or characteristics within a population. They utilize questionnaires or interviews to collect information systematically.

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Assignment:

For this assignment, I want you to delve into a topic that genuinely intrigues you within your field of study. Your task is to propose a research design that employs one or more of the research methods we've discussed. Your proposal should be a blueprint for an original investigation, showcasing your ability to apply research methods in a meaningful way.

Expectations:

Personal Connection: I expect to see a genuine passion for your chosen topic. Your enthusiasm will shine through in the clarity and depth of your proposal.

Analytical Rigor: Demonstrate your analytical skills by thoroughly justifying your choice of research methods. Explain how they align with your research objectives and why they are the most appropriate tools for the job.

Creativity: Don't hesitate to think outside the box. Whether it's designing a unique survey, crafting an innovative interview protocol, or proposing a novel mixed-methods approach, creativity is key.

Attention to Detail: Pay close attention to the finer details of your research design. From sampling methods to potential limitations, thoroughness is essential for a robust proposal.

Ethical Considerations: I expect you to address any ethical considerations inherent in your research design. How will you ensure the welfare and confidentiality of participants? How will you navigate potential conflicts of interest?

Engagement with Feedback: Be open to feedback from both your peers and me. Use it as an opportunity to refine your proposal, strengthen your arguments, and elevate the quality of your work.

By embracing this assignment wholeheartedly, you'll not only deepen your understanding of research methods but also make a meaningful contribution to your field of study. Let your curiosity guide you as you embark on this intellectual journey.



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Lesson 2: Formulating Research Questions and Hypotheses

Objective: The objective of this lesson is to guide students through the process of formulating effective research questions and hypotheses. By the end of the lesson, students will understand the importance of clear and focused research questions and hypotheses in guiding the research process.

Introduction to Research Questions and Hypotheses:

Importance: Research questions and hypotheses serve as the foundation of any research endeavor. They provide direction, focus, and clarity to the research process, guiding researchers in their exploration and investigation of a particular topic.

Definition: A research question is a clear, concise, and specific inquiry that articulates the main objective of the research. It defines the scope of the study and sets the stage for data collection and analysis. Hypotheses, on the other hand, are tentative statements that propose a relationship between variables. They are testable predictions that guide the empirical investigation.

Formulating Research Questions:

Clarity and Specificity: Research questions should be clear, concise, and specific. Avoid vague or overly broad inquiries that lack focus. Instead, narrow down your topic to a specific aspect that can be effectively explored within the scope of your study.

Relevance: Ensure that your research question is relevant to your field of study and addresses a gap in the existing literature. It should contribute to the advancement of knowledge and offer insights into unresolved issues or controversies.

Feasibility: Consider the feasibility of your research question in terms of data availability, resources, and ethical considerations. Choose a question that is realistic and achievable within the constraints of your study.

Formulating Hypotheses:

Testability: Hypotheses should be testable through empirical research. They should propose a clear relationship between variables that can be observed, measured, and analyzed.

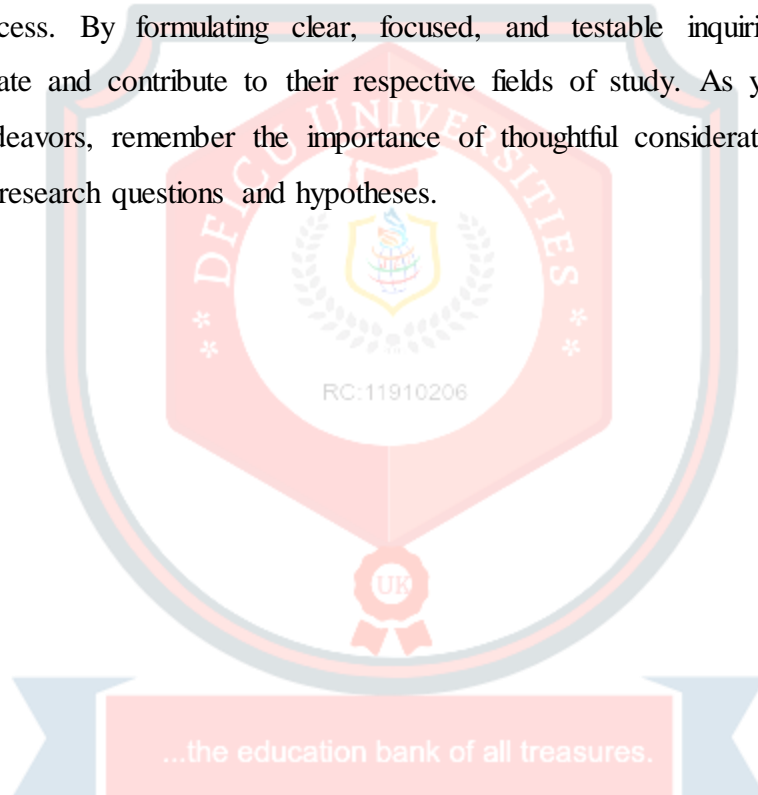
Directionality: Hypotheses can be directional or non-directional. Directional hypotheses predict the direction of the relationship between variables (e.g., "Higher levels of exercise will lead to

greater weight loss"), while non-directional hypotheses propose a relationship without specifying the direction (e.g., "There is a relationship between exercise and weight loss").

Specificity: Like research questions, hypotheses should be specific and precise. They should clearly articulate the variables involved and the nature of the proposed relationship.

Conclusion:

In this lesson, we have explored the significance of research questions and hypotheses in guiding the research process. By formulating clear, focused, and testable inquiries, researchers can effectively investigate and contribute to their respective fields of study. As you embark on your own research endeavors, remember the importance of thoughtful consideration and precision in formulating your research questions and hypotheses.



Lesson 3: Review of Literature and Conceptual Framework

Objective: The objective of this lesson is to familiarize students with the process of conducting a review of literature and developing a conceptual framework for their research. By the end of the lesson, students will understand the importance of reviewing existing literature, synthesizing key findings, and constructing a conceptual framework to guide their research.

Introduction to Review of Literature:

Definition: A review of literature involves systematically examining existing scholarly works relevant to the research topic. It aims to identify gaps, debates, and trends in the literature, providing a foundation for the research study.

Purpose: The review of literature serves several purposes:

- Establishing the context and significance of the research topic.
- Identifying gaps and inconsistencies in existing knowledge.
- Synthesizing key findings and theoretical frameworks.
- Providing a theoretical and empirical basis for the research study.

Process of Conducting a Review of Literature:

Identifying Relevant Sources: Begin by identifying relevant sources such as academic journals, books, conference proceedings, and reputable websites. Utilize library databases and search engines to access scholarly literature.

Critical Evaluation: Evaluate the credibility, reliability, and relevance of the literature. Consider factors such as author expertise, publication date, methodology, and theoretical framework.

Synthesis and Analysis: Synthesize key findings, concepts, and theories from the literature. Identify common themes, debates, and gaps in existing knowledge. Analyze the strengths and limitations of previous research studies.

Organizing the Literature: Organize the literature thematically or chronologically based on the research objectives. Develop a coherent narrative that guides readers through the evolution of ideas and debates in the field.

Introduction to Conceptual Framework:

Definition: A conceptual framework is a theoretical structure that outlines the key concepts, variables, and relationships underpinning the research study. It provides a roadmap for the research design, data collection, and analysis.

Purpose: The conceptual framework serves several purposes:

- Guiding the formulation of research questions and hypotheses.
- Identifying the key variables and their interrelationships.
- Providing a theoretical basis for data collection and analysis.
- Enhancing the coherence and validity of the research study.

Developing a Conceptual Framework:

Identifying Key Concepts and Variables: Identify the key concepts and variables relevant to the research topic. Define these concepts and specify their operational definitions.

Establishing Relationships: Determine the hypothesized relationships between variables. Consider the direction and nature of these relationships (e.g., causal, correlational).

Visual Representation: Develop a visual representation of the conceptual framework using diagrams, flowcharts, or models. Clearly depict the relationships between variables and illustrate the theoretical framework guiding the research.

Refinement and Revision: Refine and revise the conceptual framework based on feedback from peers and instructors. Ensure that the framework is logically coherent, theoretically grounded, and aligned with the research objectives.

Conclusion:

In this lesson, we have explored the importance of conducting a review of literature and developing a conceptual framework in the research process. By critically evaluating existing literature and constructing a theoretical framework, researchers can establish the context, significance, and

theoretical basis for their research study. As you embark on your own research endeavors, remember the value of thoroughness, critical analysis, and theoretical rigor in conducting a literature review and developing a conceptual framework.

Assignment:

Activity: Conducting a Literature Review and Developing a Conceptual Framework

Objective: This activity aims to immerse you in the practical aspects of conducting a literature review and crafting a conceptual framework tailored to your research interests.

Instructions:

Select Your Research Topic: Choose a research topic that resonates with your academic interests and future aspirations. It could be something you've always wanted to explore or a pressing issue within your field of study.

Conduct a Literature Review: Dive into the vast ocean of academic literature related to your chosen topic. Utilize library databases, scholarly journals, and reputable sources to gather relevant articles, books, and research papers.

Synthesize Key Findings: Carefully read and analyze the literature you've gathered. Identify common themes, conflicting viewpoints, and gaps in existing knowledge. Take notes and organize your findings to gain a comprehensive understanding of the research landscape.

Identify Key Concepts and Variables: Based on your literature review, identify the key concepts, variables, and theoretical frameworks relevant to your research topic. Define these concepts clearly and consider how they interrelate with one another.

Establish Relationships: Determine the hypothesized relationships between the key concepts and variables identified in your literature review. Consider the nature and direction of these relationships, whether they are causal, correlational, or exploratory.

Develop Your Conceptual Framework: Using the insights gained from your literature review, construct a conceptual framework that outlines the theoretical underpinnings of your research study. Visualize the relationships between variables using diagrams, flowcharts, or conceptual models.

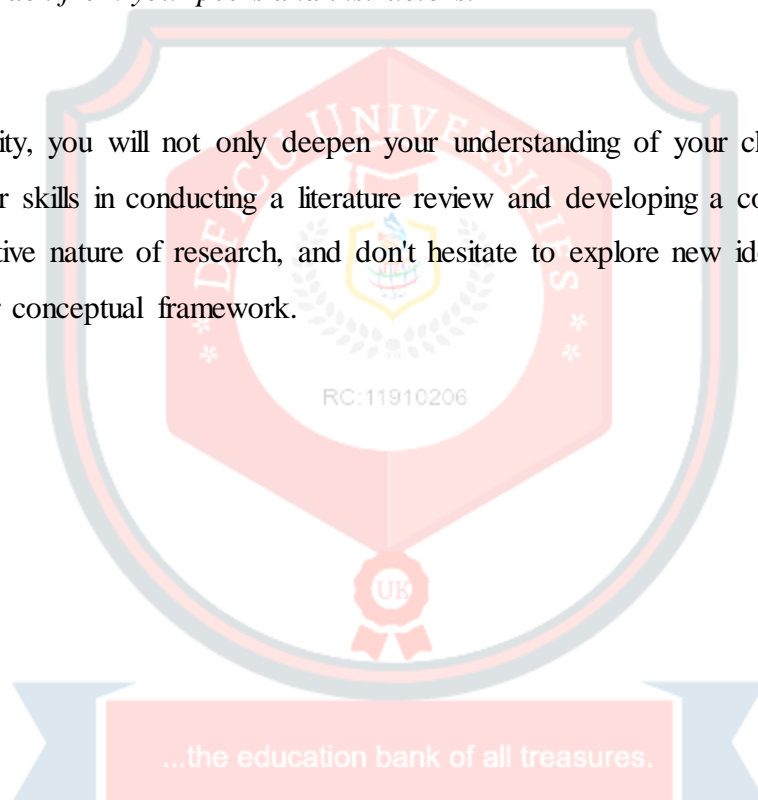
Refine and Revise: Review your conceptual framework critically, seeking feedback from peers and instructors. Refine and revise it as needed to ensure clarity, coherence, and alignment with your research objectives.

Presentation:

Prepare a brief presentation showcasing your literature review findings and conceptual framework. Highlight the key concepts, variables, and relationships you've identified, and explain the theoretical basis for your research study. Be prepared to engage in discussions and receive constructive feedback from your peers and instructors.

Conclusion:

Through this activity, you will not only deepen your understanding of your chosen research topic but also hone your skills in conducting a literature review and developing a conceptual framework. Embrace the iterative nature of research, and don't hesitate to explore new ideas and perspectives as you refine your conceptual framework.



Lesson 4: Research Design: Experimental, Quasi-Experimental, and Non-Experimental Designs

Objective: The objective of this lesson is to introduce students to various research designs, including experimental, quasi-experimental, and non-experimental designs. By the end of the lesson, students will understand the characteristics, strengths, and limitations of each design and be able to select the most appropriate design for their research study.

Introduction to Research Design:

Definition: Research design refers to the overall plan or strategy for conducting a research study. It outlines the structure, methods, and procedures for collecting and analyzing data to address research questions or test hypotheses.

Importance: The choice of research design significantly impacts the validity and reliability of research findings. It determines how data will be collected, manipulated, and interpreted, influencing the generalizability and applicability of research outcomes.

Experimental Research Design:

Characteristics: Experimental research involves the manipulation of one or more independent variables to observe their effects on a dependent variable. It utilizes random assignment to allocate participants to experimental and control groups, allowing for causal inference.

Strengths:

Establishes causality by controlling for extraneous variables through random assignment.

Allows for precise control over experimental conditions, enhancing internal validity.

Provides opportunities for hypothesis testing and theory development.

Limitations:

Ethical constraints may limit the feasibility of experimental designs in certain contexts.

Practical constraints, such as time, resources, and sample size, may affect the implementation of experimental studies.

Quasi-Experimental Research Design:

Characteristics: Quasi-experimental research resembles experimental research but lacks full randomization. Participants are not randomly assigned to experimental and control groups, leading to potential confounding variables.

Strengths:

Allows for the investigation of causal relationships in situations where random assignment is not feasible or ethical.

Provides greater external validity compared to laboratory experiments, as it often takes place in real-world settings.

Limitations:

Greater susceptibility to threats to internal validity, such as selection bias and history effects.

Difficulty in establishing causality due to the lack of random assignment.

Non-Experimental Research Design:

Characteristics: Non-experimental research focuses on observing and describing phenomena without intervention or manipulation of variables. It includes observational studies, correlational research, and descriptive studies.

Strengths:

Allows for the exploration of naturally occurring phenomena in real-world settings.

Useful for generating hypotheses, exploring relationships between variables, and describing patterns of behavior.

Limitations:

Limited ability to establish causality due to the absence of experimental manipulation.

Vulnerable to confounding variables and alternative explanations for observed relationships.

CONCLUSION:

In this lesson, we have explored different research designs, including experimental, quasi-experimental, and non-experimental designs. Each design offers unique opportunities and challenges for conducting research and addressing research questions or hypotheses. As you embark on your own research endeavors, carefully consider the characteristics, strengths, and limitations of each research design to select the most appropriate approach for your study.

