



Parkland College
Arba Minch
Short Term Trainings Programs

Research Methodology

About the Course

This course is aimed at equipping the participants with the knowledge and skills to undertake a research study. The participants will understand relevant theories, concepts, tools and techniques in research. This course is designed to be practical therefore the theoretical knowledge that constitutes research methodology is organized around the operational steps that form the research process for both quantitative and qualitative research.

Course Duration

- 7 Days at 8 hours a day

What you will learn

By the end of this training the participants will be able to gain skills on:

- Formulate and write research questions, hypotheses and research objectives
- Effectively select the correct research design
- Examine critically the importance of a sampling strategy in both quantitative and qualitative research and be familiar with key sampling methods
- Undertake a critical literature review and recognize the strengths and weaknesses in secondary data
- Develop robust data collection instruments
- Write a research proposal that demonstrates an understanding of the research process and the key principles of research ethics
- Identify and appraise appropriate routes for the dissemination of research findings

Course Outline

1. Module 1: Introduction to Research

1.1. Introduction to Research

1.1.1 Research defined

1.1.2 Research process

1.1.3 What makes research scientific?

1.2. From Research idea to Researchable Problem

1.2.1. Where do research ideas come from?

1.2.2. Formulating the research problem

1.2.3. Research problem to researchable questions

1.3. Formulating Research Questions, Hypotheses and Objectives

1.3.1. Research questions

1.3.2. Research hypotheses



- 1.3.3. Research objective(s)
- 1.3.4. Formulating research statements

2. Module 2: Research Approaches and Design

2.1. Research Approaches

- 2.1.1. Introduction to research approach
- 2.1.2. Quantitative research approach
- 2.1.3. Qualitative research approach
- 2.1.4. Mixed methods approach

2.2. Research Design

- 2.2.1. Introduction to research design
- 2.2.2. Relationship between research approach, research design and research methods
- 2.2.3. Quantitative Research Design
 - 2.2.3.1. Descriptive research
 - 2.2.3.2. Correlational research
 - 2.2.3.3. Causal-comparative
 - 2.2.3.4. Experimental
- 2.2.4. Qualitative Research Design
 - 2.2.4.1. Narrative research
 - 2.2.4.2. Phenomenology
 - 2.2.4.3. Grounded theory
 - 2.2.4.4. Ethnographies
 - 2.2.4.5. Case study
- 2.2.5. Mixed Methods
 - 2.2.5.1. Convergent
 - 2.2.5.2. Explanatory sequential
 - 2.2.5.3. Exploratory sequential
 - 2.2.5.4. Transformative, embedded, or multiphase
- 2.2.6. Criteria for selecting a research approach and design

3. Module 3: Sampling

3.1. Introduction to Sampling

- 3.1.1. What is sampling?
- 3.1.2. Sampling process
- 3.1.3. What makes a good sample?
- 3.1.4. Sampling method types

3.2. Sources of Error in Sampling and Measurement

- 3.2.1. Sampling error
- 3.2.2. Non-sampling errors
- 3.2.3. Accuracy, precision, and bias

3.3. Sampling Methods

- 3.3.1. Probability sampling
- 3.3.2. Non-probability sampling

3.4. Sample Size Calculation

- 3.4.1. Sample size calculation parameters
- 3.4.2. Sample size calculation approaches and formulas



3.4.3. Sample size considerations

4. Module 4: Data Collection in Research

4.1. Introduction to Data Collection

4.1.1. Data collection techniques

4.1.2. Data collection sources

4.1.3. Data collection pathways

4.2. Quantitative Data Collection

4.2.1. Qualitative data collection methods and tools

4.2.2. Survey questionnaire

4.2.3. Designing the questions

4.2.4. Structuring the questionnaire

4.2.5. Building a data management and analysis plan

4.2.6. Pre-testing and finalizing data collection tools

4.3. Qualitative Data Collection

4.3.1. Qualitative data collection methods and tools

4.3.2. Interviews

4.3.2.1. Interview guide design

4.3.2.2. Interview conduct

4.3.2.3. Special considerations

4.3.3. Focus Group

4.3.3.1. Designing the FGD guide

4.3.3.2. Conducting the FGD

4.3.3.3. Special considerations

5. Module 5: Research Writing

5.1. Literature Review

5.1.1. Introduction

5.1.2. Characteristics of literature reviews

5.1.3. Analysis and synthesis

5.1.4. Types of literature reviews

5.1.5. Process of conduction literature review

5.1.6. Referencing and citation

5.2. Developing a Research Protocol

5.2.1. Introduction to research protocol

5.2.2. Drafting the main components of a research protocol

5.2.3. Ethical review

5.3. Research Report

5.3.1. Report structure

5.3.2. Report content

5.3.3. Data presentation

5.3.4. Dissemination of findings

Target Participants

This training on research on methodology is aimed at researchers, students, academics or any other professional who want to enhance their research skills.

**Prerequisites**

None

Training Approach

This training on research methodology is delivered by our seasoned trainers who have vast experience as expert professionals in research study. The course is taught through a mix of practical activities, theory, group works and case studies.

Training manuals and additional reference materials are provided to the participants.

Certification

Upon successful completion of this course, participants will be issued with a certificate.

Tailor-Made Course

We can also do this as tailor-made course to meet organization-wide training needs. A training needs assessment will be done on the training participants to collect data on the existing skills, knowledge gaps, and training expectations and tailor made needs.