APPLIED RESEARCH

ISCED UNIT CODE: 0111 551 26A

TVET CDACC UNIT CODE: HO/CU/HP/CC/05/6/MA

Unit duration: 80 Hours

Relationship to Occupational Standards

This unit addresses the Unit of Competency: **Conduct Applied Research**

Unit Description

This unit specifies the competencies required to conduct Applied research**.** It involves preparing scientific research proposal, applying scientific research methods and analyzing scientific research finding.

Summary of Learning Outcomes

SNO	Learning Outcome	Duration (hours)
1.	Prepare scientific research proposal	30
2.	Apply scientific research methods	20
3.	Analyze scientific research finding	30
	TOTAL	**80**

Learning Outcomes, Content and Suggested Assessment Methods

Learning Outcomes	Content	Suggested Assessment Methods
1. Prepare scientific research proposal	**Theory** 1.1 Scientific research proposal 1.1.1 Definition of research proposal 1.1.2 Types of research proposal 1.1.2.1 Descriptive 1.1.2.2 Quantitative 1.1.2.3 Qualitative 1.1.2.4 Case study	• Written tests • Case Studies • Projects • Interviews/ Oral questions • Individual/group assignments

	1.2 Uses of research proposal 1.3 Identification of research problems 1.4 Developing objectives of research proposal 1.5 Designing data collection method 1.5.1 Questionnaires 1.5.2 Interviews 1.5.3 Experiment 1.5.4 Survey 1.5.5 Observation 1.6 Structure of a research proposal 1.6.1 Cover page 1.6.2 Abstract 1.6.3 Introduction 1.6.4 Literature review 1.6.5 Methodology 1.6.6 Summary 1.6.7 Conclusion 1.6.8 Recommendation **Practice** 1.7 Develop a research proposal and present.	
2. Scientific research methods	**Theory** 2.1 Research methods 2.2 Definition of Research methods 2.2.1 Types of research methods 2.2.1.1 Questionnaires 2.2.1.2 Interviews 2.2.1.3 Experiment 2.2.1.4 Survey 2.2.1.5 Observation 2.3 Determine Sampling techniques 2.3.1 Probability	• Written tests • Case Studies • Projects • Interviews/ Oral questions • Individual/group assignments

	2.3.2 Non-probability 2.4 Identification of research materials to be used. 2.4.1 Encyclopedia 2.4.2 Papers 2.4.3 Books 2.4.4 Articles 2.4.5 Journals 2.4.6 Website **Practice** 2.5 Collect Data according to 2.1.2	
3. Analyse scientific research findings	**Theory** 3.1 Research findings 3.1.1 Definition of research findings 3.1.2 Identify data analysis methods 3.1.1.1 ANOVA 3.1.1.2 Measure of central tendency 3.1.1.3 Measure of dispersal **Practice** Prepare research report using the methods in 3.1.2.	• Written tests • Case Studies • Projects • Interviews/ Oral questions • Individual/group assignments

Suggested Methods of Instruction

- Role playing
- Group discussion
- Direct instruction
- Questionnaires
- Interviews

- Experiment
- Survey
- Observation

Recommended Resources for 30 Trainees

- Rolls flip charts
- White board
- Marker pens
- Fools cap
- Internet connection
- Writing materials
- Computer
- Pens