



ZIMBABWE EZEKIEL GUTI UNIVERSITY

COLLEGE OF LIFELONG LEARNING

EXAMINATION PAPER

MODULE CODE : DUWC125  
MODULE TITLE : RESEARCH METHODS  
DURATION : 3 Hours  
LEVEL : 1.1  
DATE :

27 NOV 2025

**INSTRUCTIONS TO CANDIDATES:**

1. No cell phones are allowed in the examination venue.
2. Use of silent, non-programmable calculators is allowed
3. Answer **Question 1** and any other **one** in Section B.
4. Begin each question on a new page.
5. The number of marks for each question or part question is shown in brackets [ ]
6. Show all workings, where applicable.

## Section A (Compulsory)

### Question 1

For each research situation below:

- (a) Identify the independent and dependent variables and
  - (b) Classify the level of measurement of each variable.
  - (c) Decide the statistical applications to be used: descriptive statistics (single variable), descriptive statistics (two or more variables), or inferential statistics
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- i. A graduate student is researching the prevalence of cyberbullying among high school students. She surveys 600 students across five schools, asking if they have ever been victims of cyberbullying and how frequently (often, sometimes, rarely, never). She also collects data on age, gender, and social media usage to explore correlations between these variables and cyberbullying frequency.

**[7 marks]**
  - ii. After a local school district bans energy drinks on campus, a research class polls students and teachers to gather opinions. Respondents are asked whether they support or oppose the ban, how often they consumed energy drinks before the ban, and whether they agree with the statement: *"Energy drinks negatively affect student concentration and behavior."* Demographic data such as age, role (student/teacher), health habits, and academic performance are also collected.

**[7 marks]**
  - iii. A student researcher analyzes data from 60 developing countries to investigate whether increased internet access correlates with higher literacy rates. She uses percentage of population with internet access as the independent variable and adult literacy rate as the dependent variable. Her hypothesis is that countries with broader internet access have better literacy outcomes.

**[7 marks]**
  - iv. An urban planning student studies the effect of a major road construction project on nearby small businesses. He collects monthly revenue data from 40 businesses for six months before and after the construction began. He also records foot traffic volume, business type, and location proximity to the

construction site to assess whether these factors influence revenue changes.  
[7 marks]

- v. A psychology student conducts an experiment to determine whether different music genres affect study efficiency. Participants are randomly assigned to listen to classical, pop, or no music while completing a standardized reading comprehension test. The researcher records test scores, time taken, and self-reported concentration levels, and compares results across groups to identify any significant differences.  
[7 marks]

### SECTION B (Choose one question)

#### Question 2

As online platforms increasingly become venues for psychological and behavioral research, consider a study that uses social media data (e.g., posts, likes, shares, and comments) to analyze patterns of anxiety and depression among young adults.

a. What are the ethical dilemmas involved in using publicly available social media data for research without explicit consent from users?  
[12 marks]

b. Propose specific amendments to the APA Ethics Code that would address the ethical complexities of using digital trace data from social media platforms in psychological research.  
[13 marks]

#### Question 3

a. Explain the term *measurement of variables*.  
[10 marks]

b. Discuss the distinguishing characteristics of the four levels of measurement?  
[15 marks]

#### Question 4

After a city-wide campaign promoting plant-based diets, local hospitals reported a noticeable drop in cases of high blood pressure and heart disease within three months. Health officials credited the campaign for the improvement in public health and proposed expanding it to other regions.

c. Identify and explain the presumed cause and the presumed effect in this scenario.  
[10 marks]

- d. Explain why someone might believe these two variables are causally related. Then, identify and discuss at least two alternative variables or explanations that could have contributed to the observed effect.

**[15 marks]**

**--- The End ---**

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