



MASENO UNIVERSITY
UNIVERSITY EXAMINATIONS 2015/2016

THIRD YEAR SECOND SEMESTER EXAMINATIONS FOR THE
DEGREE OF BACHELOR OF ARTS IN DEVELOPMENT STUDIES
WITH INFORMATION TECHNOLOGY

MAIN CAMPUS

**DDS 309: RESEARCH METHODOLOGY AND DPS 310:
METHODS OF POLITICAL ENQUIRY**

Date: 22nd April, 2016

Time: 8.30 - 10.30 am

INSTRUCTIONS:

- Answer question ONE, and any other TWO questions.



DD5 309: RESEARCH METHODOLOGY and DPS 310: METHODS OF POLITICAL ENQUIRY

INSTRUCTIONS: Question ONE is compulsory. Answer ONE question from Section A and B.

1. Read the case study below, on working street children in Nairobi. You are working in Nairobi City Council and are given the task to develop a study to understand the struggles of working street children in Nairobi. The aim is to help designing appropriate forms of support for the children.

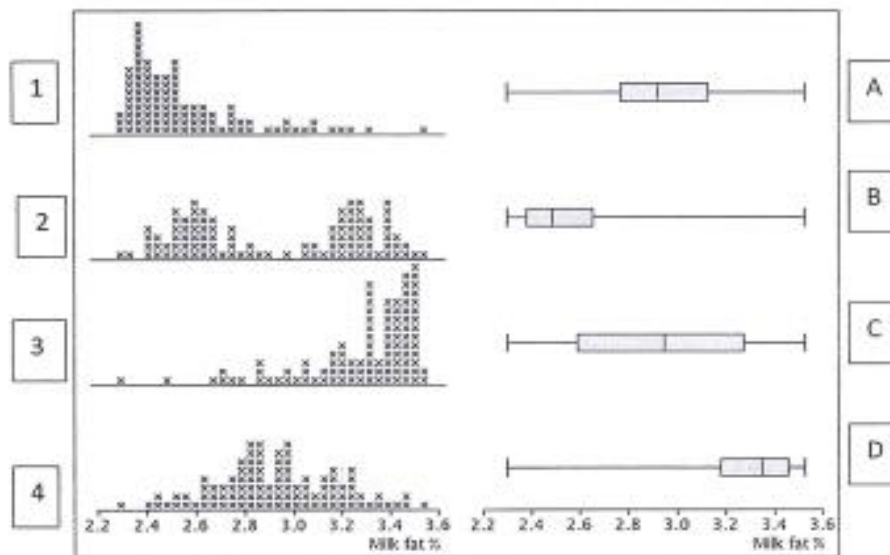
Case study: Working Street Children in Nairobi. Poverty is forcing more and more children to seek work on the streets of Nairobi. Whilst most children live with family or relatives, some children live on the street with no adult supervision and care. Children are typically employed as street vendors, car washers, shoe-shiners and as beggars and scavengers. Furthermore, large numbers of children are picked up on the street to do ad hoc domestic work, particularly girls, often performing physically-demanding tasks in situations where they face risk of abuse and exploitation behind the walls of private homes. Regardless of the type of labour, working street children often miss out on regular schooling and on opportunities that would enable them to pursue their right to a 'normal' childhood and a dream to escape poverty. They are often required to engage in risky, heavy and age-inappropriate forms of labour, which, among other issues, can have serious consequences for their physical and emotional health.

- a. Here are two examples of research questions relating to the case study. Critically discuss each research question, and choose the most appropriate, justifying your choice [6 marks].
 - i. What is life like for working street children?
 - ii. What are the struggles of working street children in Nairobi, and what are the implications of these observations to development programmes?
- b. Chose AT LEAST ONE quantitative method and AT LEAST ONE qualitative method of data collection touse in the study. Justify your choice. [6 marks]

- c. Who should participate into your study, with the aim of providing the evidence you need? In other words, what will your sampled population be? [6 marks]
- d. Design ONE quantitative and ONE qualitative tool that you would use in your data collection, providing the list of questions that you would include in each of them. [12 marks]

SECTION A

2.
 - a. What is a box plot and why is it useful? [4 marks]
 - b. What are the FIVE components of a box plot? Explain each of them in detail. [10 marks]
 - c. Stacked dot plots of four data sets are shown in the picture below. Match them with the four box plots on the right. [6 marks]



3.
 - a. What is a normal distribution? [4 marks]
 - b. Explain the parameters μ and σ of a normal distribution. [6 marks]
 - c. Annual rainfall in an African town is approximately normally distributed with $\mu = 1,090$ mm and $\sigma = 120$ mm. Sketch this normal distribution. [6 marks]
 - d. What is the "70-95-100 rule of thumb" and why is it useful? [4 marks]

Section B

4.

- a. Define the standard error of the mean. [6 marks]
 - b. A sample of $n=100$ avocados were sampled by a supermarket from a large batch that was delivered by a supplier. Their mean was found to be 109.4 grams and their standard deviation was 4.4 grams. Calculate the standard error of their mean weight of the avocados, and interpret the result. [8 marks]
 - c. What is the difference between standard error and standard deviation? [6 marks]
- 5.
- a. Explain what hypothesis testing is and the types of hypothesis testing. [8 marks]
 - b. What is a p-value and how does it help in hypothesis testing? [6 marks]
 - c. Physiologists measured the weights and heights of 35 children aged 10. A scatterplot of the weights and heights was drawn and the linearity of the relationship was tested. (The null hypothesis is a linear relationship.) The p-value from the test was 0.2454. What does the p-value tell you about the data? [6 marks]