



<u>FACULTY</u>	: Education
<u>DEPARTMENT</u>	: Childhood Education
<u>CAMPUS</u>	: SWC
<u>MODULE</u>	: HRMC00Y : Research Methods
<u>SEMESTER</u>	: Second
<u>EXAM</u>	: November 2019

<u>DATE</u>	:	<u>SESSION</u>
	Prof C Long Dr F Naude Dr K Fonseca	
<u>ASSESSOR(S)</u>	:	
<u>MODERATOR</u>	: Prof S van Staden	
<u>DURATION</u>	: 3 HOURS	<u>MARKS</u> : 100

NUMBER OF PAGES: 5 PAGES

INSTRUCTIONS:

1. Answer ALL THE QUESTIONS.
2. Number your answers clearly.
3. Each question should take approximately 30 minutes.
4. Write Questions 1 & 2 in one booklet, and Questions 3, 4, 5 & 6 in the second booklet.

SECTION 1: QUALITATIVE RESEARCH METHODS (QUESTIONS 1 & 2)

QUESTION 1: The research process and academic writing

[25 marks]

Question 1

1.1 Write a short introduction on a topic of your choice in childhood education in which you incorporate the six main elements of an academic introduction.

(8)

1.2 Read the following case study below and answer the questions that follow:

You have been approached by a teacher at a local primary school, Mr Tangaka, about his concerns in taking part in educational research. Mr Tangaka says that a researcher came to their school early in January, soon after school started and offered each teacher R50-00 to fill out a questionnaire for her post-graduate studies focusing on school discipline. The researcher also asked the teachers to keep the research confidential. He is not certain if the principal and the parents are fully informed of what is happening in this study.

Mr Tangaka knows you are studying at the university and has asked you for advice on how to deal with the situation and what the accepted methods of conducting ethical research are. He is concerned about taking money for being involved in the research, keeping the research from his school principal and about giving information about school learners discipline issues to an external researcher.

1.2.1 Identify three possible types of data generation methods not mentioned in the case study that the researcher could have used. Provide one advantage of each method. (6)

1.2.2 Provide four suitable key words that could be used for the research paper. (4)

1.2.3 Mr Tangaka has expressed concerns about the ethical practices of the researcher. Critically discuss the ethical practices (or lack of ethical practices) of the researcher and provide guidelines on how these practices may be improved upon. (6)

1.2.4 Why would you think it is unacceptable to offer money to people to participate in a study? (1)

/25 marks/

QUESTION 2

As a novice researcher, you are writing a proposal for your BEd Honours research project. Use the sections below to describe your study.

- 2.1 Choose a topic for your research in the broad field of childhood education and narrow it down to a researchable issue. (1)
- 2.2 Write a $\frac{3}{4}$ page discussion of the research problem and motivation for your study, using literature to make your argument. Here include an explanation of the problem, the context and the gap in the research. (10)
- 2.2 Now set a research question/s. (2)
- 2.3 Write a short explanation ($\frac{3}{4}$ page) of your research design including a discussion of how you intend generating data and analyzing it. Include a short explanation of how you will aim for validity and reliability. (12)

/25 marks/

SECTION 2: QUANTITATIVE RESEARCH METHODS (QUESTIONS 3- 6)

[TO BE WRITTEN IN A SEPARATE BOOKLET]

QUESTION 3: Survey Research

[12 marks]

The Assessment for Learning in International Contexts (ALIC) project consists of a survey which compares the values that teachers hold about formative assessment with the practices they implement. Table 1 below shows the results of a survey of 200 Primary School teachers' responses to survey questions. On Item A4, 100% of teachers considered the statement, "The feedback that my learners receive helps them improve", *important* or *crucial* (see column 3). However, only 93% reported that they practiced this classroom strategy *often* or *mostly* (see column 4).

Table 1: Gaps between teachers' assessment values and practices

Item	Statement	Values Important/ Crucial (%)	Practices often/ mostly (%)	Values Practices gap (%)
A4	The feedback that my learners receive helps them improve.	100	93	7
A16	Learners are encouraged to view mistakes as valuable learning opportunities.	97	87	10
A24	I provide guidance to help learners assess their own learning.	93	73	20
A23	Learners' learning objectives are determined mainly by the prescribed curriculum.	80	90	-10
A29	Learners are given opportunities to assess one another's work.	63	70	-7
A6	Learners are given opportunities to decide their own learning objectives.	53	20	33

- 6.1 Describe the results for Question A16. What do the results reveal about the teachers' views and practices? (4)
- 6.2 Both Item A16 and A23 have a difference of 10 percentage points between Values and Practices. One is positive and one is negative. Compare the results on these two items. What do each of the set of results say about the teachers' values and practices? (4)
- 6.3 Which statement was least valued and seldom practiced? What could be the reason for this outcome? (4)

QUESTION 4: Large Scale International Assessments**[14]**

South Africa has participated in several **large scale international assessments**, such as the Trends in International Mathematics and Science Study (TIMSS) and the Progress in International Reading Literacy Study (PIRLS). Supporting these studies are Curriculum Frameworks, against which items are designed, and the Research Design that makes explicit the technical procedures. Choose either the TIMSS or the PIRLS in order to answer the following questions.

- 4.1 What role do the Curriculum Frameworks play in ensuring that the test items are fair across the 40 or so countries that take part in TIMSS and PIRLS? (5)
- 4.2 A key aspect of the Research Design is the sampling process. Explain in general the sampling process that is used to select learners from individual countries to participate in the study. (5)
- 4.3 What advantages are there for a particular country to take part in a large scale international study such as TIMSS or PIRLS? (2)
- 4.4 In spite of thorough and careful planning, there might still be issues of fairness and validity in the outcomes of large scale assessments. Give one possible reason that one might be cautious about making judgements based on the outcomes of a particular large scale international assessment. (2)

QUESTION 5: Experimental Design**[10]**

The type of research described as experimental design, and in particular randomized controlled trials (RCTs), are sometimes regarded as the most scientific of research designs.

- 5.1 Describe a typical design of an RCT with the help of diagrams. (6)
- 5.2 Present both an advantage and a disadvantage of this type of research. (4)

QUESTION 6: Rasch measurement theory**[14]**

Guttman (1950) considered the following criterion critical for a valid test:

If person A scores better than person B on the test, then person A should have scored all the items correct that person B has correct, and in addition some items that are more difficult. Likewise if an item is easier, it should have been answered correctly by those who answered more difficult items correct.

5.1 Draw a diagram to illustrate the ideal Guttman pattern (4)

5.2 A researcher claims that the ideal Guttman pattern is impossible in real life.

Provide arguments for and against this position. (4)

5.3 The key feature of Rasch modelling is that Item difficulty and person proficiency are aligned on the same scale. See the person-item map below.

Explain how the items and the persons are arranged on the scale. For

example what is the mean of the item location? How are the items calibrated?

Which items are most difficult and which are easiest? How are the persons

aligned with the items? At what location are the most proficient learners? At

approximately what location can the majority of learners be found? (6)

Person-Item Map

LOCATION	PERSONS	ITEMS [locations]
	x	
3.0	x	
	x	
	x	I53
	x	
	xx	I42
2.0	xx	I40
	x	I23
	xxx	I45 I46 I29
	xxx	I26
	xxxxx	I25
1.0	xxxxx	I27 I13 I50 I51
	xxxxxx	I28 I36
	xxxxxxx	I39 I24 I22 I35
	xxxxxxx	I49 I30 I20 I21 I14 I44
	xxxxxxxx	I09 I19 I47 I32
0.0	xxxxxxxxx	I38 I03
	xxxxxxxxxxx	I37
	xxxxxxxxxxx	
	xxxxxxxxxxx	I02 I11 I34 I48
	xxxxxxxxxxx	I41 I12 I10
-1.0	xxxxxxxxxxxxxxxx	I16 I01
	xxxxxxxxxxxxxxxx	I07 I52
	xxxxxxxxxxx	I31 I18 I04
	xxxxxxxxxxx	I15
	xxxxxxxxxxx	
-2.0	xxxxxx	I43
	xxxx	
	xxxx	I33
	xx	I17
	x	
-3.0		I05
		I06
-4.0		I08

x = 11 Persons

Total: 100 marks