

*Ollscoil na hÉireann, Gaillimh*  
*National University of Ireland, Galway*

GX1137

**Semester II Examinations, 2004/2005**

Exam Code(s)	4NU4, 4NU6
Exam(s)	Bachelor of Nursing
Module Code(s)	NU418
Module(s)	Research Methods (May 2005)
Paper No.	
Repeat Paper	
External Examiner(s)	Dr. Christine Anne Dearnley
Internal Examiner(s)	Dr. Kathleen Murphy Ms. Dympna Casey Ms. Adeline Cooney Ms. Gloria Avalos Ms. Sinéad Hahessy Ms. Maura Dowling Ms. Frances Farrelly Mr. Bernard McCarthy Ms. Miriam Brennan

**Instructions:**

You are expected to answer a total of **Three (3)** questions  
Use a separate answer book for each question.  
You are allowed to use a calculator.  
Please note you are expected to support your answers by  
referring to relevant literature and examples from research  
studies where appropriate.

Duration	3 Hours
No. of Answer books	3

**Requirements:**

Handout	3
MCQ	
Statistical Tables	
Graph Paper	
Log Graph Paper	
Other Material	Calculator

No. of Pages	5
Department(s)	Centre for Nursing Studies

**P.T.O.**

1. "Despite the proliferation of research, there is evidence that there is only sporadic use of research in clinical practice" (Parahoo, 1997 p. 369).  
With reference to this statement critically analyse the utilisation of research in clinical nursing practice and suggest alternative solutions to the issues raised in the literature. (100%)
  
2.
  - a) Discuss the principal features of a quasi-experiment and analyse the usefulness of this methodology to nursing. (50%)
  - b) Discuss the principal features of phenomenology as a research method and analyse its usefulness to nursing. (50%)
  
3. Discuss what is understood by probability sampling methods. (50%)  
Discuss what is understood by non probability sampling methods. (50%)  
Please include appropriate examples to support your answer.
  
4. Discuss how the researcher can safeguard the ethical principles of beneficence, respect for human dignity, and justice when undertaking research. (100%)
  
5. Identify the main factors to be considered when constructing an interview schedule and discuss the advantages and disadvantages of interviews as a method of data collection. (100%)
  
6. **A From the following I-V questions select only one option:**
  - I) which of the following would be appropriate for illustrating the relationship between height and weight among individuals in a study.
    - a) Pie chart
    - b) Box Plot
    - c) Dot plot
    - d) Histogram
    - e) Scatter plot
  
- II) With regard to statistics,
  - a) The mode is the difference between minimum and maximum
  - b) The mode is the maximum point on a frequency distribution curve.
  - c) 35% of values are above and below the median
  - d) In a normal distribution the mean value differs from the mode value
  - e) About 95% of observations lie within one standard deviations of the mean

(5%)

**P.T.O.**

III) Which of the following is an example of categorical data

- a) Blood pressure measurements
- b) Temperature
- c) Type of drug prescribed
- d) Height
- e) Number of children in the family

(5%)

IV) A study was conducted to measure the effect of smoking in relation to babies birth weight, the following variables were measured on each women in the study:

Smoking (yes/No), baby birth weight (kg), APGAR score

- a) Nominal, Ratio, Ratio
- b) Ordinal, Ratio, Interval
- c) Nominal, Ratio, Interval
- d) Ratio, Ordinal, Ratio
- e) Nominal, Interval, Ratio

(5%)

V) The product moment correlation coefficient  $r$

- a) Must lie between 0 and +1
- b) Is 0.5 when there is no relationship
- c) Should use quantitative data
- d) Measures the strength of the means of two variables
- e) None of the above

(5%)

B Write a brief interpretation of the results from the following table. When writing the interpretation, please include frequencies and percentages.

**Marital status**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	single	47	28.0	28.1	28.1
	separated	5	3.0	3.0	31.1
	married	115	68.5	68.9	100.0
	Total	167	99.4	100.0	
Missing	missing	1	.6		
Total		168	100.0		

(15%)

**P.T.O.**

- C A study of hypertension was conducted and the weight of patients was recorded in kilograms.

Cholesterol	88	86	95	69	83	60	200	72	68	60	74
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- Calculate the mean, median and mode (7%)
- Write the minimum and maximum values (1%)
- How many patients participated in the study? (1%)
- With the central tendency results draw a curve and indicate the distribution of the data. (6%)

- D The following data was were obtained when the researcher compared the length of time that mothers breastfed for between mothers who had definitely planned to breastfeed in comparison to those who hoped to give it a try.

#### Group Statistics

	How had you planned to feed	N	Mean	Std. Deviation	Std. Error Mean
How long did you BF for	Breast Feed	46	5.978	1.9831	.2924
	Try Breast Feeding	37	4.784	2.2253	.3658

		Levene's Test for Equality of Variances								
		F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
How long did you BF for	Equal variances assumed	.869	.354	2.583	81	.012	1.1945	.4625	.2743	2.1146
	Equal variances not assumed			2.551	72.89	.013	1.1945	.4683	.2611	2.1279

P.T.O.

### Questions

- i) What is the name of the statistical test utilised? 5%
- ii) How do you determine if you utilise the Equal variances assumed or the Equal variances not assumed line in the results table? 5%
- iii) What is the value of significance for the given results? 5%
- iv) Is this result statistically significant? Please explain. 5%
- v) Write your conclusion , please include the p value 5%

**E** A study was undertaken to find out if a relationship exists between the number of times a day you brush your teeth and the number of cavities you have. The result of the analysis is given below. Please answer the following questions.

### Correlations

		brush	cavities
brush	Correlation	1	-.864
	Sig. (2-tailed)		.000
	N	29	29
cavities	Correlation	-.864	1
	Sig. (2-tailed)	.000	
	N	29	29

### Questions

- i) Write the null hypothesis 5%
- ii) What is the correlation value? 5%  
Is the correlation strong?  
What is the direction of the relationship?
- iii) Is the correlation significant? Please explain 5%
- iv) What is the name of the statistical test utilized to analyse this data? 5%
- v) Write your conclusion from the analysis, please include p-value and r-value 5%

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