

Ollscoil na hEireann, Gaillimh
NATIONAL UNIVERSITY OF IRELAND, GALWAY

SECOND ARTS PSYCHOLOGY, THIRD ARTS
PSYCHOLOGICAL STUDIES AND VISITING STUDENTS
SEMESTER 1 EXAMINATION 2003-2004

PS219 Research Methods in Psychology (5 ECTS)

Time allowed: Two hours

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Answer two questions from section A and one question from section B.
(Candidates will be provided with the necessary statistical tables and formulae.)

SECTION A – Statistics (Answer two questions from this section)

1. Sixteen participants were randomly assigned to one of three conditions (high, medium and low levels of white noise) and asked to memorise a list of nonsense syllables. The number of syllables correctly recalled is recorded below:

Group 1 'High noise'	Group 2 'Medium noise'	Group 3 'Low noise'
3	4	8
2	6	9
1	3	7
2	4	9
3	5	10
	6	

Using ANOVA, determine whether there is a significant difference in mean recall between the three conditions. (100%)

2. A study was conducted to assess the effectiveness of a laboratory stressor (computer task) in inducing a cardiovascular response. Five participants had their blood pressure monitored before, during and after engaging in the task. Systolic blood pressure scores are reported below:

Participant	<i>Time of testing</i>		
	Before	During	After
1	140	155	142
2	110	124	111
3	113	120	115
4	118	129	116
5	120	134	121

Determine if the task is an effective laboratory stressor, using a one-way repeated measures ANOVA.
(100%)

3. Attitudes towards asylum seekers were assessed in a sample of university students before and after watching a documentary on the subject. The results are presented below:

Attitudes towards asylum seekers	
<i>Before</i> <i>documentary</i>	<i>After</i> <i>documentary</i>
7	6
9	7
8	11
13	10
8	7
9	14
12	16
13	17
14	15

Given that a higher score indicates a more positive attitude, did the documentary result in a significant change in attitudes in the study sample?
(100%)

4. Describe three of the following:
- (a) Three main disadvantages of a within-subjects design in psychological research
 - (b) Three main issues in the interpretation of a correlation coefficient
 - (c) Power and effect size
 - (d) Parametric versus non-parametric tests
 - (e) Qualitative methods of research in psychology.

SECTION B – Research Methods

(Answer one question from this section)

1. Discuss critically three techniques and/or methods used in psychophysiological research and highlight the major issues that can arise in this type of research.
2. As psychological research arranges for something to be done to research participants, *critically examine* some of the principal ethical considerations that arise in conducting research, citing examples where applicable.