

COMMONWEALTH OF AUSTRALIA

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Family Name	
Given Names	
Student Number	
Teaching Period	Semester 1, 2016

FINAL EXAMINATION	DURATION				
PSY447 – Research Methods and Practice	<table border="1"> <tr> <td>Reading Time:</td> <td>10 minutes</td> </tr> <tr> <td>Writing Time:</td> <td>180 minutes</td> </tr> </table>	Reading Time:	10 minutes	Writing Time:	180 minutes
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Writing Time:	180 minutes				

INSTRUCTIONS TO CANDIDATES

The examination has **Two** sections

Section A: Suggested Time: 90 minutes	Short Answer Questions: Answer 10 of 10 questions 50 Marks
Section B: Suggested Time: 90 minutes	Short Essay Questions: Answer 2 of 2 questions 50 Marks

Please ensure that your name and student number are clearly indicated on your Answer Sheets and at the top of this examination paper.

- 1.2 Note that questions **ARE NOT** of equal value.
- 1.3 Read **ALL** questions carefully.

EXAM CONDITIONS

You may begin writing from the commencement of the examination session. The reading time indicated above is provided as a guide only.

This is a CLOSED BOOK examination

No calculators are permitted

No handwritten notes are permitted

No dictionaries are permitted

ADDITIONAL AUTHORISED MATERIALS	EXAMINATION MATERIALS TO BE SUPPLIED
No additional printed material is permitted	1 x 16 Page Book 6 x Scrap Paper

**THIS EXAMINATION IS PRINTED
DOUBLE-SIDED.**

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Section A
Short answers
Total No of Marks for this section: 50 Marks

This section should be answered in the Answer Booklet provided.

Marks for each question are indicated. Suggested Time allocation for Section A: 90 mins

Part A – short answer questions

Question 1

Identify the variables and the type of test that should be employed to answer the following scenario. **(5 marks)**

A school counsellor is interested in the effects of three different treatments on student absenteeism. Each student will be randomly assigned to one of three treatment groups in February. The effectiveness of the treatments will be measured by counting the number of days each student is absent from February to June while holding constant the number of days the student was absent from September to December.

Question 2

When and why would you prefer to use a MANOVA to ANOVA? **(5 marks)**

Question 3

How do you maximise the power of an analysis? **(5 marks)**

Question 4

There is a recent decree from the University re on campus student fees for the use of computers. You know that some students feel strongly about the issue and you want to petition the University with your (and you believe, the majority) view. How would you conduct a survey that reflects the opinion of the whole student body (Do NOT design a questionnaire – let's say you already have that - just the method of sampling)? **(5 marks)**

Question 5

You wish to ascertain if a program to increase happiness is effective. Bearing in mind principles of good design and attribution of causality, briefly describe the design of the study and write a hypothesis which reflects this aim and design. Note you do not need to detail the content of program, rather focus on outlining the approach employed to test the efficacy of the program. **(5 marks)**

Question 6

Explain why univariate outliers may be problematic when conducting multivariate tests. **(5 marks)**

Questions 7-10

Please read the following hypotheses/research questions and (1) identify the relevant variables, (2) state which analyses are most appropriate, (3) state what checks of assumptions are appropriate, and (4) any necessary follow-up tests

7. A researcher is interested in the relationship between gender and alcohol consumption in the general population. The study will examine several hundred participants who will be asked how many alcoholic drinks they have consumed each day for one month (these reports will be summed) and who will also indicate their gender. **(5 marks)**

8. Anxious early attachment style, an overprotecting parental style, and poor social support will predict a greater response to trauma in later life. All data are in continuous form. **(5 marks)**

9. It is expected that individuals' work experience predicts the amount of salary they receive. However, it is also expected that this relationship depends on the personality characteristics of the person. Specifically, those who score higher on levels of extraversion have higher salaries than those who score lower on this personality attribute. All data are in continuous form. **(5 marks)**

10. It is expected that problem gamblers will report that gambling is more exciting than non-problem and frequent gamblers after adjusting for perceived optimism towards winning. **(5 marks)**

Section B
Short answers - Interpretation of Results
Total No of Marks for this section: 50 Marks

Marks for each question are indicated. Suggested Time allocation for Section B: 90 mins

Question 1 of 2

(25 Marks)

You have given your research assistant a data set to analyse. The output from this analysis is attached. Your task is to report the results in APA format.

When answering this question keep in mind you will need to state what analysis was conducted and interpret the output. Note, there might be materials that your research assistant has not provided you and you need to mention what these other requirements might be.

Ensure you read ALL elements of this analysis which goes across several pages

Note: the output continues over 3 pages. All variables were measure on a 4-point scale from Never to Always.

Descriptive Statistics			
	Mean	Std. Deviation	Analysis N
How often did confidants really listen	2.9931	.89674	144
How often felt confidants tried to understand	2.8542	.98214	144
Felt loved by confidants	3.1250	.80969	144
Practical help from confidants	2.6111	.90925	144
Advice or information from confidants	2.4167	.89677	144
Confidants model appropriate behaviours	2.2361	.90055	144
How often did peers really listen	2.4097	.89609	144
How often felt peers tried to understand	2.3264	.92237	144
Practical help from peers	2.1181	.92741	144
Advice or information from peers	2.0833	.77098	144
Peers model appropriate behaviours	1.9306	.72568	144

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.856
Bartlett's Test of Sphericity	Approx. Chi-Square	939.049
	df	55
	Sig.	.000

Communalities

	Initial	Extraction
How often did confidants really listen	1.000	.684
How often felt confidants tried to understand	1.000	.719
Felt loved by confidants	1.000	.566
Practical help from confidants	1.000	.612
Advice or information from confidants	1.000	.558
Confidants model appropriate behaviours	1.000	.679
How often did peers really listen	1.000	.602
How often felt peers tried to understand	1.000	.755
Practical help from peers	1.000	.770
Advice or information from peers	1.000	.780
Peers model appropriate behaviours	1.000	.694

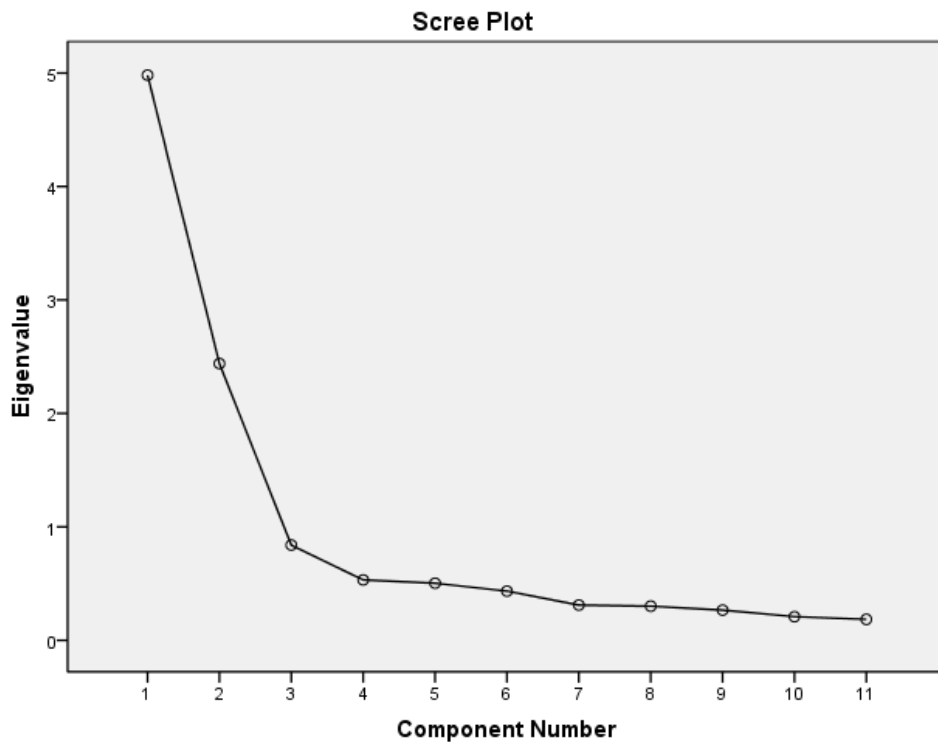
Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings ^a
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
	1	4.981	45.283	45.283	4.981	45.283	45.283
2	2.439	22.175	67.458	2.439	22.175	67.458	4.033
3	.839	7.628	75.086				
4	.532	4.839	79.926				
5	.503	4.576	84.501				
6	.434	3.943	88.444				
7	.311	2.825	91.269				
8	.301	2.734	94.003				
9	.266	2.422	96.425				
10	.208	1.895	98.320				
11	.185	1.680	100.000				

Extraction Method: Principal Component Analysis.

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.



Pattern Matrix^a

	Component	
	1	2
How often felt confidants tried to understand	.845	
Confidants model appropriate behaviours	.825	
How often did confidants really listen	.802	
Practical help from confidants	.794	
Advice or information from confidants	.754	
Felt loved by confidants	.750	
Advice or information from peers		-.892
Practical help from peers		-.880
Peers model appropriate behaviours		-.849
How often felt peers tried to understand		-.834
How often did peers really listen		-.770

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.

a. Rotation converged in 4 iterations.

b. Loadings below .1 are suppressed

Component Correlation Matrix

Component	1	2
1	1.000	-.334
2	-.334	1.000

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.

Section B
Short answers - Interpretation of Results
Total No of Marks for this section: 50 Marks

Marks for each question are indicated. Suggested Time allocation for Section B: 90 mins

Question 2 of 2

(25 Marks)

You have given your research assistant a data set to analyse. The output from this analysis is attached. Your task is to report the results in APA format.

When answering this question keep in mind you will need to state what analysis was conducted and interpret the output. Note, there might be materials that your research assistant has not provided you and you need to mention what these other requirements might be.

Ensure you read ALL elements of this analysis which goes across several pages

Note: For all variables, higher scores are indicative of an increase in the variable under investigation.

Correlations				
		Attitudes towards people with disability		
		Empathy	Self Efficacy	
Pearson Correlation	Attitudes towards people with disability	1.000	.189	.306
	Empathy	.189	1.000	.157
	Self Efficacy	.306	.157	1.000
Sig. (1-tailed)	Attitudes towards people with disability	.	.017	.000
	Empathy	.017	.	.040
	Self Efficacy	.000	.040	.
N	Attitudes towards people with disability	125	125	125
	Empathy	125	125	125
	Self Efficacy	125	125	125

Model Summary^c

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				Sig. F Change
					R Square Change	F Change	df1	df2	
1	.189 ^a	.036	.028	5.03031	.036	4.551	1	123	.035
2	.338 ^b	.114	.100	4.84081	.079	10.819	1	122	.001

a. Predictors: (Constant), Empathy

b. Predictors: (Constant), Empathy, Self Efficacy

c. Dependent Variable: Attitudes towards people with disability

ANOVA^c

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	115.157	1	115.157	4.551	.035 ^a
	Residual	3112.395	123	25.304		
	Total	3227.552	124			
2	Regression	368.675	2	184.337	7.866	.001 ^b
	Residual	2858.877	122	23.433		
	Total	3227.552	124			

a. Predictors: (Constant), Empathy

b. Predictors: (Constant), Empathy, Self Efficacy

c. Dependent Variable: Attitudes towards people with disability

Coefficients^a

Model		Unstandardized		Standardized		t	Sig.	Correlations		
		B	Std. Error	Beta				Zero-order	Partial	Part
1	(Constant)	18.699	1.028			18.183	.000			
	Empathy	.836	.392	.189		2.133	.035	.189	.189	.189
2	(Constant)	5.199	4.222			1.231	.221			
	Empathy	.639	.382	.144		1.673	.097	.189	.150	.143
	Self Efficacy	.137	.042	.284		3.289	.001	.306	.285	.280

a. Dependent Variable: Attitudes towards people with disability