**ST MARY’S UNIVERSITY**

**TWICKENHAM, LONDON**

BA/BA(ITT)/BSc Psychology students registered for

Level **FIVE**

Title**: Research Methods and Statistics 4**

Code: **PSY5002**

Semester: **TWO**

Date: **May 13th 2019**

Time: **1.30-2.30 PM**

TIME ALLOWED: **ONE** HOUR

This is an open book exam. Students are allowed to bring in notes, textbooks and calculators.

Attempt **all** questions.

Start each section on a **new** page.

**Section A: Relationships**

Researchers were interested in factors that predicted the number of friend’s people have on the social media platform Facebook. They asked 88 people how many friends they had “in real life” and asked them to complete the extraversion scale of the Big 5 questionnaire NEO PI-3 (McCrae, Martin and Costa, 2005). They then recorded how many Facebook friends participants had.

The researchers conducted a regression analysis on the data where extraversion and number of “in real life” friends were used as predictors of the number of friends on Facebook using the Enter method. They tested one model with “in real life” friends as the only predictor, and one with “in real life” friends and extraversion both entered as predictors.

Table A1

|  |  |  |  |
| --- | --- | --- | --- |
| **Descriptive Statistics** | | | |
|  | Mean | Std. Deviation | N |
| number of Facebook friends | 61.7337 | 81.18655 | 169 |
| number of "in real life" friends | 36.4852 | 16.57131 | 169 |
| extraversion | 26.8817 | 20.17537 | 169 |

Table A2

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Correlations** | | | | |
|  | | number of Facebook friends | number of "in real life" friends | extraversion |
| Pearson Correlation | number of Facebook friends | 1.000 | -.190 | .600 |
| number of "in real life" friends | -.190 | 1.000 | .082 |
| extraversion | .600 | .082 | 1.000 |
| Sig. (1-tailed) | number of Facebook friends | . | .007 | .000 |
| number of "in real life" friends | .007 | . | .144 |
| extraversion | .000 | .144 | . |
| N | number of Facebook friends | 169 | 169 | 169 |
| number of "in real life" friends | 169 | 169 | 169 |
| extraversion | 169 | 169 | 169 |

Table A3

|  |  |  |  |
| --- | --- | --- | --- |
| **Variables Entered/Removeda** | | | |
| Model | Variables Entered | Variables Removed | Method |
| 1 | number of "in real life" friendsb | . | Enter |
| 2 | extraversionb | . | Enter |
| a. Dependent Variable: number of Facebook friends | | | |
| b. All requested variables entered. | | | |

Table A4

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Model Summary** | | | | | | | | | |
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | | |
| R Square Change | F Change | df1 | df2 | Sig. F Change |
| 1 | .190a | .036 | .030 | 79.93925 | .036 | 6.284 | 1 | 167 | .013 |
| 2 | .647b | .418 | .411 | 62.28964 | .382 | 109.046 | 1 | 166 | .000 |
| a. Predictors: (Constant), number of "in real life" friends | | | | | | | | | |
| b. Predictors: (Constant), number of "in real life" friends, extraversion | | | | | | | | | |

Table A5

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **ANOVAa** | | | | | | |
| Model | | Sum of Squares | df | Mean Square | F | Sig. |
| 1 | Regression | 40153.624 | 1 | 40153.624 | 6.284 | .013b |
| Residual | 1067177.393 | 167 | 6390.284 |  |  |
| Total | 1107331.018 | 168 |  |  |  |
| 2 | Regression | 463251.058 | 2 | 231625.529 | 59.697 | .000c |
| Residual | 644079.960 | 166 | 3880.000 |  |  |
| Total | 1107331.018 | 168 |  |  |  |
| a. Dependent Variable: number of Facebook friends | | | | | | |
| b. Predictors: (Constant), number of "in real life" friends | | | | | | |
| c. Predictors: (Constant), number of "in real life" friends, extraversion | | | | | | |

Table A6

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Coefficientsa** | | | | | | | | | | | | | |
| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | 95.0% Confidence Interval for B | | Correlations | | | Collinearity Statistics | |
| B | Std. Error | Beta | Lower Bound | Upper Bound | Zero-order | Partial | Part | Tolerance | VIF |
| 1 | (Constant) | 95.772 | 14.906 |  | 6.425 | .000 | 66.343 | 125.201 |  |  |  |  |  |
| number of "in real life" friends | -.933 | .372 | -.190 | -2.507 | .013 | -1.668 | -.198 | -.190 | -.190 | -.190 | 1.000 | 1.000 |
| 2 | (Constant) | 37.777 | 12.875 |  | 2.934 | .004 | 12.358 | 63.196 |  |  |  |  |  |
| number of "in real life" friends | -1.182 | .291 | -.241 | -4.063 | .000 | -1.757 | -.608 | -.190 | -.301 | -.241 | .993 | 1.007 |
| extraversion | 2.496 | .239 | .620 | 10.442 | .000 | 2.024 | 2.968 | .600 | .630 | .618 | .993 | 1.007 |
| a. Dependent Variable: number of Facebook friends | | | | | | | | | | | | | |

**QA1.** Explain four assumptions that the data must satisfy in order to perform a linear regression. (4 marks)

**QA2.** Explain what each of the R squared values in table A4 indicate and discuss what the difference between them tells you about the variables (3 marks).

**QA3.** Write out the regression equation for the relationship between all three variables included in model 2 (3 marks).

**QA4**. Using your equation from question A3, if a participant had an extraversion score of 45 and had 12 “in real life” friends how many Facebook friends would the full model predict? Show your working (3 marks).

**QA5.** Which factor predicts number of Facebook friends best, “in real life” friends or extraversion? Identify and interpret two values (and the tables in which they appear) which give you this information (6 marks).

**QA6.** Does Model 2 suffer from multicollinearity? Report two values (and the tables they appear in) that help you answer the question and explain how you are judging them (6 marks).

**Section B - Qualitative**

Foucauldian discourse analysts view the interview as a 'co-performance'.

**QB1.** Describe what is meant by co-performance (1 mark)

**QB2.** Explain why Foucauldian discourse analysts view the interview in this way (2marks)

In qualitative research, it is expected that the researcher engage in reflexivity. Imagine you are a researcher conducting an interview-based study on the topics of masculinity and fatherhood. You plan to speak to men about this topic.

**QB3.** Describe what is meant by reflexivity (2 marks)

**QB4.** Identify two ways in which you could be reflexive, in relation to this particular study (2 marks)

You are a researcher investigating the topic of marriage. You intend to interview male university students and analyse the data using Foucauldian discourse analysis.

**QB5.** Construct a broad research question that is appropriate for your chosen analytic strategy (1 mark)

**QB6.** Why is it inappropriate to use concepts of validity, reliability and objectivity to evaluate Foucauldian discourse analysis? (5 marks)

**QB7.** What criteria could be used to evaluate Foucauldian discourse analysis and why? (6 marks)

**QB8.** Identify and explain three essential elements that underpin social constructionist approaches to psychology. (6 marks)

**END OF EXAMINATION**