

LOCATION: SWANSEA

LLEOLIAD: ABERTAWE

LEVEL 4

LEFEL 4

EXAMINATION PERIOD

MAY 2022

CYFNOD ARHOLIADAU

MAI 2022

MODULE CODE: ECPS4003
RESEARCH METHODS I

TIME: 2 HOURS

THIS PAPER CONSISTS OF THREE SECTIONS.

SECTION A: MULTIPLE CHOICE QUESTIONS (25 MARKS)

SECTION B: SHORT ANSWER QUESTIONS (50 MARKS)

SECTION C: BASIC STATISTICS QUESTIONS (25 MARKS)

YOU SHOULD ANSWER ALL QUESTIONS IN ALL THREE SECTIONS.

YOU MUST WRITE ALL YOUR ANSWERS IN ONE WORD DOCUMENT AND SUBMIT VIA TURNITIN.

CALCULATORS ARE ALLOWED. ONE RESEARCH METHODS BOOK IS ALLOWED.

Equipment or materials required – None

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SECTION A: MULTIPLE CHOICE QUESTIONS (25 MARKS)

ANSWER ALL QUESTIONS: Write your answers in your answer booklet.

Read the following accounts of psychological research studies and answer the questions that follow them.

Study 1

A group of researchers hypothesised that there would be a significant relationship between reading and IQ, with people who read more having a higher IQ. To explore whether there is a relationship they devised a diary log and asked 100 students to record the number of hours that they read each day (including textbooks, newspapers, fiction, and internet articles), and to complete this diary for one month. At the end of the month each student was given a standardised IQ test. When the researchers analysed the results, they found that the relationship between amount of hours reading and IQ was $r = .12$, $p = .057$.

1. The design of the study was (2)
 - a. correlational
 - b. within-subjects
 - c. between-subjects
 - d. Wilcoxon-paired
- 2 The hypothesis of the study predicted (3)
 - a. a negative relationship between IQ and amount of reading
 - b. simply a relationship (positive or negative) between IQ and amount of reading
 - c. a positive relationship between IQ and amount of reading
 - d. no relationship between IQ and amount of reading
3. The study found (3)
 - a. a significant negative relationship between IQ and amount of reading
 - b. no significant relationship between IQ and amount of reading
 - c. a significant positive relationship between IQ and amount of reading
 - d. a relationship between taking part in the study and amount of reading
4. A probability of less than 5 in 100 is expressed as (2)
 - a. $p > 0.005$
 - b. $p > 0.05$
 - c. $p < 0.005$
 - d. $p < 0.05$
5. Was the study hypothesis supported? (1)
 - a. Yes
 - b. No

Study 2

Dr Jenkins is an educational psychologist working in a small school for children with specific learning difficulties. As part of his doctoral thesis, he is conducting a study that explores how parents understand their children's difficulties. He has chosen to focus specifically on children who have been diagnosed with dyslexia and, as he is looking to explore an in-depth understanding of what these parents think, he decides to utilise a qualitative methodology. He recruits six parents who expressed an interest in the study and contacted him to take part. Each participant took part in a face-to-face discussion with Dr Jenkins and the conversation was guided by a set of flexible questions with appropriate prompts. Each interview was audio recorded and the transcripts were analysed using Interpretative Phenomenological Analysis (IPA).

1. What type of method of data collection has Dr Jenkins used? (2)
 - a. Participant observation
 - b. Focus groups
 - c. Semi-structured interviews
 - d. Experimental

2. For what reason may Dr Jenkins have chosen IPA over thematic analysis? (3)
 - a. IPA is more flexible
 - b. Thematic analysis is not a type of qualitative analysis
 - c. He wanted to understand the lived experiences of the parents and IPA allows for more depth in interpretation.
 - d. None of the above

3. Which of the below would be one responsibility Dr Jenkins would have when using this type of data collection method? (3)
 - a. To use open-ended prompts to help guide the discussions when needed but ensure that participants feel able to express their own views and opinions
 - b. To allow the conversation to drift as much as possible away from the topic in question in order to gain more data
 - c. Express their own personal opinions as a way of directing further discussion
 - d. To highlight some of the common concerns reported by parents in order to see if the participants agree with other peoples experiences of having a child with dyslexia

4. Why would it be important that any personal data collected during this research study are kept within secure and confidential records? (3)
 - a. So that the participants cannot find out what has been written about them
 - b. So that individuals, places and organisations cannot be harmed through identification or disclosure of personal information

- c. So that government officials, teachers and other people in authority can have easy access to the data
 - d. To enable the researcher to track down individuals and find out more about their lives and experiences with their children
5. One of the participants expresses a worry that their child's education may be affected as a result of taking part in this study. What information must Dr Jenkins do to ensure that participants are aware of what is expected of them and what will happen following completion of the study before they take part? (3)
- a. Ensure fully informed consent which includes the right to withdraw their data at any points during or after their interviews
 - b. Ensure that participants are aware of the confidential nature of the research and that individual information will not be passed on to anyone directly involved in the care of their family member
 - c. Confirm in writing that any personally identifiable information (names, location, or context) will be changed or removed to protect confidentiality in any presentation of study findings
 - d. All of the above

SECTION B: SHORT ANSWER QUESTIONS (50 MARKS)

ANSWER ALL QUESTIONS: Write your answers in your answer booklet.

Carefully read through the following description of a study and then answer all of the questions listed below.

Study 1

Washington and Leonard are researching gender differences in memory. Previous neuropsychological research has suggested that females are better at object recognition, whilst males are better at spatial orientation. The researchers decide to test whether there is a difference between men and women in the recall of previously seen people. They manage to recruit 73 participants (30 men and 43 women) to take part in the study. In part one of the study, each participant is shown 20 pictures of faces (10 male faces and 10 female faces) which are displayed on the screen for exactly two seconds each. They are then given an unrelated distracter task (building a house out of Lego blocks) and are told they cannot continue to the second part of the recognition task until this has been completed. After completion of the distracter task the participant takes their seat at the computer again and is shown 20 faces, 10 which have been previously seen and 10 which are new. The participant is required to indicate on the keyboard whether they have seen the face before or not. The researchers count the number of times each participant correctly recognised a previously seen face and analyse the data. Amazingly, they find that men have a significantly better memory for previously seen faces than women, despite much of the previous research suggesting the opposite.

1. What is the design of this study? Explain your answer. (2)
2. The variables in this study were 'gender of the subject' and 'number of previously-seen faces correctly recognised.' Which of these is the dependent variable and which the independent variable? Explain your answer. (4)
3. Identify a factor that was controlled for and explain why this had to be controlled for. (4)
4. The study contains a major potential confounding variable. What is this and why is it potentially confounding? (4)
5. Why might this variable have influenced the data and subsequent results? What could be done to resolve this issue? Explain your answer. (6)
6. What statistical analysis would the researchers have used to analyse the data collected from this study? (2)

Study 2

A researcher is interested in exploring the differences in the ways in which adults and children interpret, and believe they engage in, healthy eating. He wants to recruit a group of adults (aged 21 and above) and a group of children (aged between 10 and 14) to take part in the study. All participants will be required to give informed consent to take part in the research and will be asked to sign a consent form when they attend the sessions. Participants will also be made aware that the conversations they have with the researcher will be audio recorded. He constructs a semi-structured schedule of questions in preparation for the sessions. The questions he used in the sessions can be found below.

Following completion of the group discussions, the researcher begins to transcribe the recordings. Whilst listening to the recordings he remembers that a participant had asked him to give her the details of a local food bank that she wanted to donate to. He could not remember her name but had an image of what she looked like in his head. He gets the consent forms from the participants and starts to use social media to see which participant was the one who had asked him this.

He finds the correct woman and contacts her privately on social media. Whilst conversing, she asks if it would be possible to get the full name of another participant in the study; she had been having a conversation with him following the completion of the study but could not remember his last name and wanted to stay in touch with him. The researcher provides the surname of the participant.

1. What type of method has the researcher used to collect data in this study? Discuss the appropriateness of this method for the topic being explored. (4)
2. How many participants would be suitable per group for the chosen method? (4)
3. Have all the participants provided appropriate informed consent? If not, what should the researcher have ensured he did to ensure informed consent was suitably obtained for all participants? (8)
4. Are there any breaches of ethics that have occurred? If so, what are they and why would they be considered a breach of ethics? Make reference to the appropriate ethical guidance in your answer. (12)

SECTION C: BASIC STATISTICS QUESTIONS (25 MARKS)

ANSWER ALL QUESTIONS: Write your answers in your answer booklet.

A researcher is conducting a study to explore the effect of alcohol on accuracy of typing on a computer keyboard. She recruits 12 people who agree to take part in her study and gives each of them three units of alcohol. She then provides them with a pre-written paragraph containing 50 words in total and asks them to copy the paragraph using the keyboard. Participants are told that they cannot use the backspace or delete buttons during this time. The number of words that were typed incorrectly were recorded for each participant.

Participant	Number of words typed incorrectly
1	21
2	17
3	3
4	44
5	19
6	31
7	14
8	25
9	20
10	28
11	24
12	30

1. Calculate the mean for the participant scores. (5)
2. Calculate the median for the participant scores (5)
3. Calculate the mode for the participant scores (5)
4. Which of these measures of central tendency would be best used to explain the dispersion of these scores? Give your reasons for choosing this measure and also your reasons for not choosing the other measures. (10)

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