



LOCATION: SWANSEA

LLEOLIAD: ABERTAWE

LEVEL 4

LEFEL 4

**EXAMINATION PERIOD
JANUARY 2022**

**CYFNOD ARHOLIADAU
IONAWR 2022**

TIME: 2 HOURS

**MODULE CODE:
ECPS4003
RESEARCH
METHODS I**

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

In a research study, 40 subjects are tested on their basic driving skills using a driving simulator; their task is to drive around a course hitting as few cones as possible. Half (20) of the participants are then given a three-week programme of mental agility puzzles to be carried out every day. The remaining 20 participants are simply asked to return for the second part of the study in three weeks. At the end of the three weeks, all participants return to the laboratory where they complete another test of their driving skills. As predicted by the researchers, the participants who were given the three-week programme of mental agility puzzles hit significantly less cones on this second test, supporting the hypothesis that carrying out mental agility tasks will significantly improve driving skills.

1. The design of the study was (2)
 - a. within-subjects
 - b. between-subjects**
 - c. correlational
 - d. a sign-test

2. The independent variable was (3)
 - a. the length of time between the first and second part of the study
 - b. number of cones hit on the second test compared to the first test
 - c. whether participants completed the mental agility puzzles or not**
 - d. the number of subjects who took part in the second test compared to the first test

3. The hypothesis of this study was (3)
 - a. two tailed because a significant difference was predicted
 - b. one tailed because a significant difference was predicted
 - c. one tailed because the researcher predicted that the mental agility tasks would improve driving skills**
 - d. two tailed because the researcher predicted that the mental agility tasks would improve driving skills

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. $p < 0.05$**

Study 2

Dr Williams is an addiction researcher looking to elicit best practices for mindfulness work in addiction recovery. As part of a research project to explore this, she recruits eight adults who had taken part in at least six sessions of mindfulness recovery practice within a recovery centre. As she was looking to get an in-depth understanding of the ways in which mindfulness was perceived by these individuals, and to explore their perceptions of their own addiction recovery, she decides to utilise a qualitative methodology. Each participant took part in a one-to-one discussion with Dr Williams and an interview schedule was used to guide discussions. Each interview was audio recorded and transcripts were analysed using Interpretative Phenomenological Analysis (IPA).

1. What type of method of data collection has Dr Williams used? (3)
 - a. Focus groups
 - b. Experimental
 - c. Semi-structured interviews
 - d. Participant observation.

2. Which of the below would be one responsibility the researcher would have using this type of data collection method? (3)
 - a. To allow the conversation to drift as much as possible away from the topic in question in order to gain more data
 - b. Express their own personal opinions as a way of directing further discussion
 - c. To use open-ended prompts to help guide the discussions when needed but ensure that participants feel able to express their own view and opinions
 - d. To highlight the existing issue of the lack of mindfulness practice used in addiction recovery as a way of gaining more discussion from participants

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

4. Why is it 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 government officials, teachers and other people in authority can have easy access to the data
 - c. To enable the researcher to track down individuals and find out more about their lives and experiences
 - d. So that individuals, places and organisations cannot be harmed through identification or disclosure of personal information
5. One of the participants expresses a worry that their care may be affected as a result of taking part in this study. What must Dr Williams 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

A team of researchers are looking to examine whether there is a relationship between viewing television programmes and committing crime during adolescence, because they believe that higher levels of crime are linked with higher levels of watching television. The researchers have chosen a town with a population of 18,000 people, and randomly selected 500 children between the ages of 13 and 17 from the register of births.

To collect data, the researchers contacted the parents of these children and interviewed them by telephone. The parents were asked to give an estimation of how much television their children watch per week (in hours) and how many times they have been in trouble with the law. As predicted by the researchers, a positive interaction was found between television viewing and number of times children were in trouble with the law.

1. What is the design of this study? Explain your answer. (2)

correlational design

2. What type of data did the researchers collect, continuous or categorical? Explain your answer. (4)

categorical, because the data being used can be categorised and recorded as nominal findings (the number of hours they watch tv and the number of times they have been in trouble by the law)

3. Are there any potential confounding variables for this study? If so, what are they and how might the researchers deal with them? (4)

participant reaction could be a variable as parents may just be telling the researcher what they want to hear. also parents may be unaware of how much time the children actually spend on the TV and are only able to report known instances of violence. they may also under report findings in order to convey their child in a positive manner. in order to combat this researchers may be better off by actually asking the children directly

4. What statistical analysis would the researchers have used to analyse the data collected from this study? (2)

Chi Square test

5. Why might the way in which the data were collected and analysed reduce the reliability of the study? Is there a better way that this study could have been conducted and data analysed? Explain your answer. (10)

Study 2

Dr Ellis and her research team have received funding from a large private company to conduct a research study across three of their largest offices looking at the experiences of women in leadership positions. As part of this research, the company has requested that they would like the researchers to look at the ways in which the women perceive their leadership style differs to the male leaders within the company and have asked that they receive a full copy of the transcribed recordings plus the final report from the research.

Dr Ellis decides to conduct semi-structured face-to-face interviews with eighteen women working across the three sites in order to collect qualitative data through the use of an interview guide. A call for participation was made through an email sent via the organisations secure server asking for interested women to contact the research team to arrange an interview. Interviews were determined to take place in the women's' individual offices and would last between 45 minutes and 1 hour each.

A junior member of the team who had joined as a research assistant was asked to begin constructing the interview questions to be included in the interview schedule. These can be seen below.

Interview Questions (Version 1)

- First of all, can you please tell me a bit about your role here at *[organisation name]*?
 - How long have you worked here?
 - Is this the best career you could have chosen for yourself?
 - Can you explain or give some background information on how you ended up in the position you're now in?
 - Leadership position – managing a team of people
 - What have you given up getting to this position?
 - Do you agree that women are better leaders than men?
 - If I were to ask one of your team what kind of leader you are, what do you think they would say?
-
- So, you think they would say you are (summarise previous response) – would you say this reflects how you personally see yourself as a leader, too?

1. Why did Dr Ellis choose to conduct interviews rather than focus groups for this study?(4)

So that they could get in depth information from each women without having them compete for time and attention as tends to happen with focus groups. This way each women gets to describe her position in depth which allows for a more thorough analysis. Interviews are easier to organize as they dont require multiple conflicting schedules.

2. Is the recommended number of participants appropriate for the chosen method? Explain your answer. (2)
3. There are some major ethical issues that should be considered in this study. What are they and what should the researchers do to ensure everyone involved is protected sufficiently? (6)

A few ethical considerations for these women include their right to privacy and their right to withdraw their data. The company asked to receive all the transcripts from the interviews which infringes upon the participants right to anonymity when taking part in the study. Also, it creates adverse pressure for them to say the right thing in fear of repercussions.

4. Are there any conflicts of interest present in this study? If so, what are they and why might this be an issue? (6)

As the company funded the research, it stands to reason that they would pressure the researcher into interpreting findings in a way that is helpful overall to their agenda rather than a true and objective reflection of the results.

5. Dr Ellis requests that interview questions 2, 4 and 5 be changed. For each of these questions, state what is wrong with the question and provide an alternative question that could be asked. (10)

question 2 - could be considered a leading question with a clear intended answer. Instead perhaps they could ask "are you satisfied with the position you hold?"

question 4 - too broad. instead they could say "Has acquiring this position required you to make any personal or professional sacrifices? This seems less invasive and more specific to the role.

question 5 - once again could be considered a leading question. Also, given the purpose of the study this question seems presumptuous. instead perhaps they could ask "do you think there any differences in the ways in which men and women assume leadership roles?" with a possible follow up being "typically, which style of leadership do you believe is best for cultivating a constructive work environment?"

SECTION C: BASIC STATISTICS QUESTIONS (25 MARKS)**ANSWER ALL QUESTIONS: Write your answers in your answer booklet.**

A researcher wants to investigate the effect of level of extraversion on reported social activities with other people. She recruits ten participants willing to carry out her study and asks them to complete a short personality questionnaire and to report how many hours they spend socialising with other people per week. The table below shows the number of hours each participant stated they socialise with other people for per week.

Participant	Hours of socialising
1	2
2	11.5
3	16
4	1
5	11.5
6	2.5
7	7
8	2
9	3.5
10	4

1. Calculate the mean for the participant scores (5)

6.1

2. Calculate the median for the participant scores (5)

3.75

3. Calculate the mode for the participant scores (5)

11.5 and 2 (bimodal)

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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