

Section C

Research methods

Answer **all** questions in this section

1 2

Read the item and then answer the questions that follow.

A psychologist wanted to see if creativity is affected by the presence of other people. To test this he arranged for 30 people to participate in a study that involved generating ideas for raising funds for a local youth club. Participants were randomly allocated to one of two conditions.

Condition A: there were 15 participants in this condition. Each participant was placed separately in a room and was given 40 minutes to think of as many ideas as possible for raising funds for a local youth club. The participant was told to write down his or her ideas and these were collected in by the psychologist at the end of the 40 minutes.

Condition B: there were 15 participants in this condition. The participants were randomly allocated to 5 groups of equal size. Each group was given 40 minutes to think of as many ideas as possible for raising funds for a local youth club. Each group was told to write down their ideas and these were collected by the psychologist at the end of the 40 minutes.

The psychologist counted the number of ideas generated by the participants in both conditions and calculated the total number of ideas for each condition.

Table 2: Total number of ideas generated in Condition A (when working alone) and in Condition B (when working in a group)

	Condition A Working alone	Condition B Working in a group
Total number of ideas generated	110	75

1 2 .

1

Identify the experimental design used in this study **and** outline **one** advantage of this experimental design.

[3 marks]

1 2 . 2 Describe **one other** experimental design that researchers use in psychology.

[2 marks]

1 2 . 3 Apart from using random allocation, suggest **one** way in which the psychologist might have improved this study by controlling for the effects of extraneous variables. Justify your answer.

[2 marks]

1 2 . 4 Write a suitable hypothesis for this study.

[3 marks]

1 2 . 5 From the information given in the description, calculate the number of participants in each group in **Condition B**.

[1 mark]

1 2

Read the item and then answer the questions that follow.

The psychologist noticed that the number of ideas generated by each of the individual participants in **Condition A** varied enormously whereas there was little variation in performance between the 5 groups in **Condition B**. He decided to calculate a measure of dispersion for each condition.

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6

Name a measure of dispersion the psychologist could use.

[1 mark]

1 2 .

7

The psychologist uses the measure of dispersion you have named in your answer to **question 12.6**. State how the result for each condition would differ.

[1 mark]

1 2 .

8

Explain how the psychologist could have used random allocation to assign the 15 participants in **Condition B** into the 5 groups.

[3 marks]

1 2

Read the item and then answer the questions that follow.

This is a repeat of information given on page 12.

Table 2: Total number of ideas generated in Condition A (when working alone) and in Condition B (when working in a group)

	Condition A Working alone	Condition B Working in a group
Total number of ideas generated	110	75

1 2 .

9

Using the information given in **Table 2**, explain how the psychologist could further analyse the data using percentages.

[2 marks]

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