



F12-10min Pilot Surveys (Foundation): 10-minute Pack

EDEXCEL 1ST0 · Calculator allowed · about 10 minutes

Total Marks

Name: _____ Date: ____ / ____ / ____

Answer ALL questions. Show all your working.

- 1** As part of a pilot survey, a researcher posts questionnaires to 25 people. 20 of the 25 questionnaires are completed and returned.

(a) Work out the response rate for this pilot survey, as a percentage. (2)

.....
(b) State whether a response rate of 80% would generally be considered a high or a low response rate for a survey, giving a reason. (1)

(Total for Question 1 is 3 marks)

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- 2** A student is investigating how quickly ice cubes melt at different room temperatures. Rather than using a questionnaire, she plans to collect her results using a data collection sheet, on which she will record the time taken for each ice cube to melt completely.

Before her main investigation, she carries out a pilot of her data collection method.

(a) State one difference between piloting a questionnaire and piloting a data collection sheet or method, such as the student's. (2)

(b) Give an example of a problem that a pilot of the student's data collection method might reveal, that a pilot questionnaire would not. (2)

(Total for Question 2 is 4 marks)

3 In a different pilot survey, only 9 of the 30 questionnaires sent out were returned.

(a) Give one reason why a person might not respond to a questionnaire. (1)

(b) Explain why a low response rate, found during a pilot survey, could be a problem (2)
if the same questionnaire were used, unchanged, for the main survey.

(Total for Question 3 is 3 marks)

Mark scheme · F12-10min Pilot Surveys (Foundation): 10-minute Pack

Question 1

- (a) **M1** 20/25, oe
- (a) **A1** 80% cao
- **(a) Answer: 80 %**
- (b) **B1** high, with an acceptable reason, e.g. most people who received a questionnaire returned it
- **(b) Answer: High. Most of the people who were sent a questionnaire (20 out of 25) returned it.**

Question 2

- (a) **B1** piloting a questionnaire tests the wording/clarity of written questions and their response options
- (a) **B1** piloting a data collection sheet/method tests the practical process of measuring/recording data (e.g. equipment, timing, layout of the recording sheet), rather than question wording
- **(a) Answer: Piloting a questionnaire tests whether written questions and their response options are clear. Piloting a data collection sheet or method tests whether the practical process of measuring and recording results, such as the equipment used or the layout of the sheet, actually works.**
- (b) **B1** identifies a practical/equipment problem, e.g. the stopwatch is hard to read, or the ice cubes are not all the same size to begin with
- (b) **B1** links the problem to an effect on the results, e.g. this would make the times recorded inconsistent/unfair to compare
- **(b) Answer: For example, the pilot might reveal that the ice cubes used are not all exactly the same size, which would make the melting times unfair to compare between temperatures.**

Question 3

- (a) **B1** any valid reason, e.g. the questionnaire is too long, oe personal/sensitive questions, oe no interest in the topic, oe the person did not receive it
- **(a) Answer: The questionnaire might take too long to complete, so some people do not bother finishing or returning it.**
- (b) **B1** identifies that too few responses would be collected in the main survey, oe
- (b) **B1** identifies that the people who do respond might not be representative/typical of the whole population, leading to biased conclusions
- **(b) Answer: Too few people would respond to give a large enough sample, and the small number who do respond might not be typical of the whole population, so the conclusions of the main survey could be biased or unreliable.**