

Quiz: Study design

Now that you've completed 'Study design', test your knowledge by taking the module quiz. If you don't do well the first time, go back and reread the module content and try again.

Question 1 of 8

Which of the following is a scientific objective of all longitudinal studies?

- A. To determine the effect of maternal diet on child development
- B. To track change over time
- C. To understand how early life disadvantage affects adult outcomes
- D. To uncover the predictors for healthy ageing
- E. All of the above

Question 2 of 8

Which of the following is the most fundamental design consideration for longitudinal studies?

- A. Whether to adopt a prospective or retrospective design
- B. How to link information from government records
- C. How to boost the sample to ensure it remains representative over time
- D. Whether to collect biological samples

Question 3 of 8

The scientific purpose of the Southampton Women's Survey is to understand the dietary and lifestyle factors that influence the health of women and their children. How did this objective shape the study design? Tick all that apply.

- A. Children with certain disorders were recruited to take part in the study, and their mothers were asked to recall the food they ate during pregnancy.
- B. Women were recruited to take part in the study before they became pregnant.
- C. Information on the diets of mothers and children was collected prospectively.
- D. None of the above

Question 4 of 8

True or false? If a sample frame is used on an opt-in rather than an opt-out basis, this tends to produce a larger, more representative sample.

- A. True
- B. False

Question 5 of 8

What aspects of study design need to take into account potential respondent burden? Tick all that apply.

- A. Length of the survey
- B. Complexity of the survey
- C. Mode of the survey
- D. Frequency of the surveys
- E. None of the above

Question 6 of 8

Which of the following was used as the sampling frame for the Millennium Cohort Study?

- A. Birth records
- B. Electoral register
- C. GP patient lists
- D. Child Benefit Records
- E. Postcode Address File

Question 7 of 8

Which of the following are examples of survey modes? Tick all that apply.

- A. Cognitive assessments
- B. Questionnaires
- C. Telephone interviews
- D. Open-ended questions
- E. Grip strength
- F. All of the above
- G. None of the above

Question 8 of 8

Which of the following will Research Ethics Committees normally consider? Tick all that apply.

- A. How the data will be edited and coded after the interview
- B. How the participation of vulnerable groups will be supported
- C. How participants will be contacted, and how their informed consent to participate will be ensured and documented
- D. How the response rate will be monitored over the course of fieldwork
- E. All of the above
- F. None of the above

Answers

1. B - By their very nature, all longitudinal studies share one common aim – to track change over time. However, individual studies will each have their own scientific aims. Some have broad, interdisciplinary objectives, while others are much more strictly focused on certain aspects of life.
2. A - Longitudinal study teams must make careful decisions about what information can be recalled with reasonable accuracy, and what information must be collected prospectively or 'in the moment'.
3. B & C - The scientists wanted to know how women's pre-pregnancy lives and diets shaped their health and that of their babies, so they recruited women aged 20 to 34 and followed up those who became pregnant. They also knew that to record diet accurately, they could not rely on participants' long-term memory.
4. B - Asking participants to opt into a longitudinal study tends to produce smaller and more biased samples than opting out.
5. A, B, C, & D - Many study participants lead busy lives, so longitudinal study teams need to make necessary adjustments to all aspects of the surveys to ensure taking part in the study does not become too burdensome.
6. D - At the time that the Millennium Cohort Study was set up, Child Benefit was universal, making the Child Benefit Records an accurate reflection of all UK families with a child born in the study's target year.
7. C - Mode refers to how the survey instruments are administered. Longitudinal survey modes include face-to-face, telephone, postal and online surveys.
8. B & C - Research Ethics Committees pay particular attention to issues of consent and the participation of vulnerable persons.