

Exercise walk-through

Themes and Methods in Developmental Psychology ■ 3.1

eXercise

You must be able to

- contrast **cross-sectional** 横断 and **longitudinal** 纵向 designs
- state what a **cohort effect** 世代效应 confounds
- describe **stability against change** and **continuity against stages**
- explain what a **critical** or **sensitive period** 关键期 is

Method — Two designs

A **cross-sectional** study compares different age groups at one time — fast, but the groups differ in more than age. A **longitudinal** study follows one group over years — it isolates age, but is slow and loses participants.

Method — Cohort effects

People born in different decades differ in schooling, nutrition and technology as well as age. A cross-sectional age difference may therefore be a **cohort** difference, and this is the design's central weakness.

Method — Two recurring questions

Stability or change: do traits persist across life? **Continuity or stages:** is development gradual, or a sequence of qualitatively different periods?

Method — Critical and sensitive periods

A **critical period** is a window during which a particular input is required for normal development. A **sensitive period** is a window in which development is easiest but not exclusively possible.

Practice 2.1 ■ 2 marks

State one advantage and one disadvantage of a longitudinal design.

Solution 2.1

Worked steps

advantage: it follows the same people, so age effects are not confounded with cohort **B1**; disadvantage: it is slow and participants drop out **B1**.

Practice 2.2 ■ 2 marks

Explain what a cohort effect is and which design it threatens.

Solution 2.2

Method: Cohort effects

Worked steps

a difference caused by being born in a different era rather than by age **B1**; it threatens cross-sectional designs **B1**.

Practice 2.3 ■ 1 mark

A study finds 70-year-olds score lower on a computer task than 20-year-olds.

- (a) State the design used.
- (b) State one alternative explanation besides ageing.

Solution 2.3

Method: Two designs

Worked steps

(a) cross-sectional **B1**. (b) the older group grew up without computers, so the difference may be a cohort effect **B1**.

Exam-style 3.1 ■ 1 mark

To separate the effect of ageing from generational differences, a researcher should use a

A cross-sectional design

B longitudinal design

C case study

D correlational survey

Solution 3.1

A cross-sectional design

B longitudinal design



C case study

D correlational survey

Worked steps

B. following one group removes the generational confound.

Exam-style 3.2 ■ 1 mark

A window in which language is learned most easily but can still be learned later is a

A critical period

B sensitive period

C cohort effect

D stage

Solution 3.2

A critical period

B sensitive period



C cohort effect

D stage

Worked steps

B. a sensitive period makes learning easiest without making it impossible later.

Exam-style 3.3 ■ 1 mark

A researcher must choose between following 200 children for 15 years and testing 200 children of three ages now.

- (a) State one practical reason to choose the second.
- (b) Explain the cost of that choice.

Solution 3.3

Worked steps

(a) it delivers results now, at far lower cost and with no attrition **B1**. (b) age groups differ in generation as well as age **B1**, so any difference found cannot be attributed to ageing alone **B1**.