Developmental psychology

Supported GRE teaching and original transfer practice

Developmental psychology

- Compare cross-sectional, longitudinal and sequential designs.
- Explain **cohort 同龄群体** effects and **attrition 样本流失**.
- Apply the main developmental theories by their mechanisms.
- Interpret twin and adoption evidence on nature and nurture.

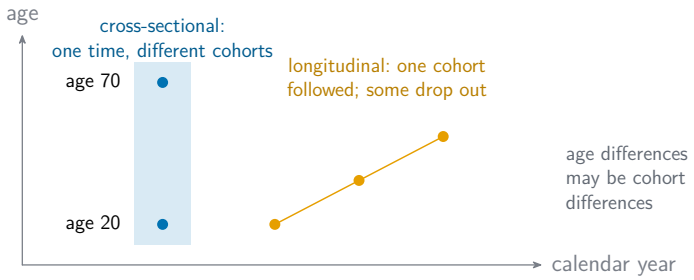
Development across the lifespan

- Development covers physical, cognitive, social and emotional change from conception to old age.
- Different domains change at different rates: vocabulary can grow in old age while processing speed declines.
- Averages describe groups; they are not deadlines for each child.

Research designs

- Cross-sectional: different age groups tested at one time. Quick, but age is confounded with cohort.
- Longitudinal: the same people followed over time. Shows real change, but loses participants and suffers practice effects.
- Sequential: several cohorts followed over time, which separates age from cohort.

Figure: Research designs



- Cross-sectional risks cohort effects; longitudinal risks **attrition**.
- Read the axes and units first.

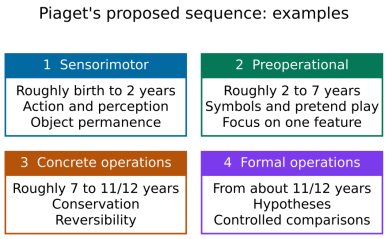
Theories

- Piaget: children actively build understanding, through stages of reasoning.
- Vygotsky: learning is social. The zone of proximal development is what a child can do with help but not yet alone; scaffolding is that help.
- Attachment theory (Bowlby, Ainsworth): the security of the caregiver relationship shapes exploration and later relationships.

Theories (2)

- Erikson: eight psychosocial crises from infancy to old age.
- A stage label describes; the mechanism explains.

Figure: Theories



- Piaget defined each stage by how the child reasons, with approximate ages
- Match each part of the diagram to the text.

Nature and nurture

- Identical twins share all their genes, fraternal twins about half. If identical twins are more alike, genes contribute.
- Adopted children can be compared with biological and adoptive parents.
- **Heritability 遗传力** is the share of variation in a trait within a population linked to genetic differences. It says nothing about an individual, and it can change when environments change.

Worked example: computers and age

- This is cross-sectional, so age is confounded with cohort: the older group grew up without computers.
- A longitudinal study of one cohort would separate ageing from experience, but people who find the tests hard may drop out, making the remaining group look better.
- A sequential design follows several cohorts and compares them at the same ages.

Worked example: hints

- In Vygotsky's terms, the task lies in their zone of proximal development; the hints are scaffolding.
- Record exactly which hints were given, and later test without them.
- Success with help does not yet show independent mastery.

Common errors

- Treating a cross-sectional age difference as change in individuals.
- Ignoring **attrition** in longitudinal studies.
- Using a stage name as an explanation.

Common errors (2)

- Applying **heritability** to one person.
- Treating average milestones as fixed deadlines.

Key terms

- **cohort**: A group of people born in the same period, who share historical experiences.
- **attrition**: The loss of participants during a study.
- **heritability**: The proportion of variation in a trait, within a population, linked to genetic differences.

Check yourself

- Which design best separates age effects from cohort effects?
- Why might a longitudinal study overestimate how well older people do?
- Identical twins are more alike in a trait than fraternal twins. What does this suggest?