

IB Psychology: explanation, research and limits

Supported preparation only; actual school choices and assessed work remain separate

Levels of explanation and evidence: method

Levels of explanation and evidence: method

Biological explanations concern physiological processes; cognitive explanations concern processing; sociocultural explanations concern social context. They may interact.

A study needs a bounded claim, method, sample, measure and limits; an approach label is not evidence.

Explanations, studies and inference: source representation

Original source / task evidence

Task: fictional sleep duration correlates with recall. Explain a cognitive hypothesis, a competing factor and a better comparison.

Separate what is stated from the interpretation.
Levels of explanation and evidence

Original fictional task source; not an authentic selected work.

Levels of explanation and evidence: worked case

Levels of explanation and evidence: worked case

Task: fictional sleep duration correlates with recall. Explain a cognitive hypothesis, a competing factor and a better comparison.

Identify the evidence before reading the model.

Levels of explanation and evidence: reasoning

Levels of explanation and evidence: reasoning

Sleep may relate to encoding or retrieval, while stress or study time could influence both. Correlation alone cannot establish direction or mechanism.

An ethically approved design with controlled task conditions and appropriate allocation can improve inference, but sample and task still limit transfer.

Levels of explanation and evidence: your transfer

Levels of explanation and evidence: your transfer

A region is active during recall. Does this show it alone stores the memory?

Pause and give an individual answer with reasons.

Levels of explanation and evidence: transfer review

Levels of explanation and evidence: transfer review

Activity is associated with the task under the measurement conditions. Other regions and processes may contribute, and activity may accompany retrieval rather than exclusively store memory.

Converging methods and suitable comparisons can refine the claim, but the scan alone cannot establish exclusive function.

Social learning without stereotypes: method

Social learning without stereotypes: method

A social-learning account identifies a model, observed action and consequences, then predicts learning or imitation under stated conditions. National or group identity is not a complete mechanism.

Applying an approach to an option requires the school's selected option and evaluated studies.

Culture, social learning and application: source representation

Original source / task evidence

Task: after observing a peer praised for a strategy, some pupils try it. Evaluate the explanation and a limit.

Separate what is stated from the interpretation.
Social learning without stereotypes

Original fictional task source; not an authentic selected work.

Social learning without stereotypes: worked case

Social learning without stereotypes: worked case

Task: after observing a peer praised for a strategy, some pupils try it. Evaluate the explanation and a limit.

Identify the evidence before reading the model.

Social learning without stereotypes: reasoning

Social learning without stereotypes: reasoning

Observed modelling and praise make vicarious learning plausible. Prior preference, direct instruction or shared incentives could also matter.

Compare opportunities and repeated behaviour rather than treating the whole group as identical.

Social learning without stereotypes: your transfer

Social learning without stereotypes: your transfer

Design a comparison separating observation of strategy from observation of praise.

Pause and give an individual answer with reasons.

Social learning without stereotypes: transfer review

Social learning without stereotypes: transfer review

Compare ethically approved conditions showing the same strategy with and without observed praise, keeping other exposure and instructions comparable and allocating appropriately.

Measure subsequent strategy use. Prior preference and demand effects remain relevant; do not invent results.

Experimental preparation and data: method

Experimental preparation and data: method

Specify the independent variable, dependent measure, allocation, controls and consent before analysis. Standardization reduces avoidable variation; random assignment differs from random sampling.

Actual approved replication data must be retained, not replaced by illustrative numbers.

Ethical design, data and evaluation: source representation

Original source / task evidence

Rehearsal: fictional recall scores are 4, 6, 8 for format A and 3, 4, 5 for B.
Calculate means and state what cannot follow from them.

Separate what is stated from the interpretation.
Experimental preparation and data

Original fictional task source; not an authentic selected work.

Experimental preparation and data: worked case

Experimental preparation and data: worked case

Rehearsal: fictional recall scores are 4, 6, 8 for format A and 3, 4, 5 for B. Calculate means and state what cannot follow from them.

Identify the evidence before reading the model.

Experimental preparation and data: reasoning

Experimental preparation and data: reasoning

Mean $A = (4+6+8)/3 = 6$ items; mean $B = (3+4+5)/3 = 4$ items; difference = 2 items. These means alone do not establish statistical significance, a population effect or a causal design.

Inspect variability, allocation and assumptions before choosing analysis.

Experimental preparation and data: your transfer

Experimental preparation and data: your transfer

The same pupils complete both recall formats. What changes in design and analysis?

Pause and give an individual answer with reasons.

Experimental preparation and data: transfer review

Experimental preparation and data: transfer review

Scores are paired within pupils, so analyse within-person differences with an appropriate paired method and assumptions. Randomize or counterbalance order to reduce sequence effects and use comparable material.

Paired design is not random sampling and does not ensure generalization.

Check yourself

Independent retrieval

Two classes use different revision methods and obtain different means. Design a comparison that improves causal inference while protecting participants.

Write your reasoning before comparing it with the methods and limits taught in this lesson.