HL extensions: culture, motivation, technology and data

IB DP Psychology HL extensions and Paper 3

HL extensions: culture, motivation, technology and data

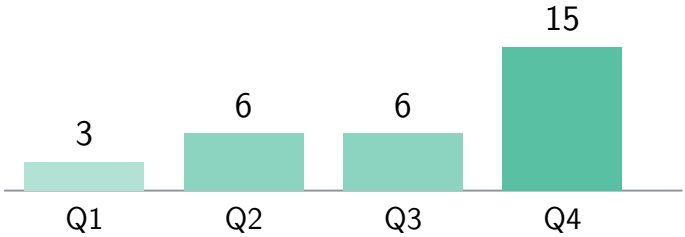
- explain how culture shapes behaviour, including attribution and the problem of WEIRD samples;
- explain intrinsic and **extrinsic motivation** and **self-determination theory**;
- evaluate research on technology, well-being and memory;

HL extensions: culture, motivation, technology and data (2)

- describe and interpret data with averages, spread, significance and correlation;
- answer the four Paper 3 questions on a set of sources.

Figure: HL extensions: culture, motivation, technology and data

30 marks, 1 h 45 min, 4–6 sources on one topic;
Q4 asks how far the evidence supports a claim

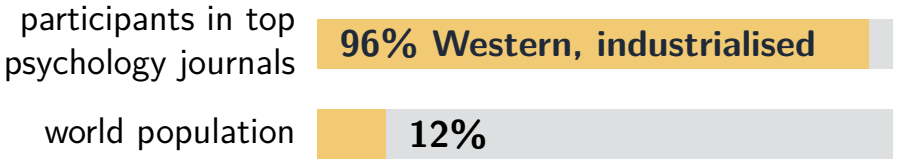


- Paper 3: half the marks sit on the final judgement.
- Match each part of the diagram to the text.

Culture and behaviour

- Hofstede described **cultural dimensions** , ways in which national cultures differ on average.
- The best known is **individualism–collectivism** : in individualist cultures people see themselves mainly as separate persons; in collectivist cultures mainly as members of groups.
- These are averages: many people in any country do not fit them.
- Culture shapes how we explain behaviour.

Figure: Culture and behaviour



- WEIRD samples: who was studied versus who lives on Earth.
- Match each part of the diagram to the text.

Motivation

- **Intrinsic motivation** comes from enjoying the activity; **extrinsic motivation** comes from rewards or punishments. **Self-determination theory** (Deci and Ryan) says people are most motivated when three needs are met: **autonomy** (choice), **competence** (feeling able) and **relatedness** (feeling connected to others).
- Rewards can reduce **intrinsic motivation**.
- Lepper, Greene and Nisbett (1973) studied preschool children who liked to draw.
- Some were promised a certificate for drawing; others were not.

Technology and behaviour

- Many people believe social media makes teenagers unhappy.
- Orben and Przybylski (2019) analysed three large data sets with more than 350,000 teenagers.
- Technology use did have a negative link with well-being, but it explained at most 0.4% of the differences in well-being, about as much as eating potatoes did.
- The data were correlational, so they cannot show the direction of cause: unhappy teenagers may also use more social media.

Data analysis and interpretation

- A difference between two means is only meaningful if it is large compared with the **standard deviation**. **Inferential tests** give a **p-value**: the chance of a difference this big if the null hypothesis were true.
- Psychologists usually call a result **statistically significant** when $p < 0.05$.
- A significant result can still be a small effect, and a result from a small sample may not repeat.
- A **correlation coefficient** , r, runs from -1 to $+1$.

Paper 3: worked example

- The claim: *"The use of technology in school may have a negative effect on students' mental health."* Two of the sources are shown below.
- *Two practice sources: a group comparison and a correlation*
- **1.
- Explain one issue that limits the interpretation of the data in Source A.** (3 marks)

Sources for this lesson

- International Baccalaureate, *Psychology guide* (first assessment 2027), the HL extensions and Paper 3.
- M. W. Morris and K. Peng, "Culture and cause", *Journal of Personality and Social Psychology* (1994).
- J. Henrich, S. Heine and A. Norenzayan, "The weirdest people in the world?", *Behavioral and Brain Sciences* (2010).

Sources for this lesson (2)

- M. Lepper, D. Greene and R. Nisbett, "Undermining children's intrinsic interest with extrinsic reward", *Journal of Personality and Social Psychology* (1973); E. Deci and R. Ryan, ***Self-Determination Theory*** (2017).
- A. Orben and A. Przybylski, "The association between adolescent well-being and digital technology use", *Nature Human Behaviour* (2019); A. Ward and others, "Brain drain", *Journal of the Association for Consumer Research* (2017).

Common errors

- Treating a whole country as individualist or collectivist; the scores describe averages, not each person.
- Assuming findings from Western university students apply to everyone (the WEIRD problem).
- Saying rewards always raise motivation; an expected reward can lower intrinsic interest (the **overjustification effect**).

Common errors (2)

- Reporting a **statistically significant** result as a large effect; a tiny effect can be significant in a big sample.
- Reading a correlation as cause, for example "social media causes unhappiness".
- In the 15-mark question, summarising each source in turn instead of weighing them against the claim.

Key terms

- **Individualism–collectivism**: how far a culture values personal goals over the goals of the group.
- **WEIRD**: Western, educated, industrialised, rich and democratic: the kind of sample most psychology research has used.
- **Intrinsic motivation**: doing something because it is interesting or satisfying in itself.

Key terms (2)

- **Overjustification effect**: an expected external reward lowers interest in an activity people already enjoyed.
- **Standard deviation**: a measure of how spread out data are around the **mean**.
- **p-value**: the probability of a result at least this extreme if the null hypothesis were true.
- **Correlation coefficient**: a number from -1 to $+1$ that shows the strength and direction of a relationship.

Check yourself

- 1.
- What did Morris and Peng (1994) find about attribution in American and Chinese participants? 2.
- Why does Henrich et al.'s WEIRD argument matter for a claim about "human" behaviour? 3.
- Name the three needs in **self-determination theory**. 4.