Exercise walk-through

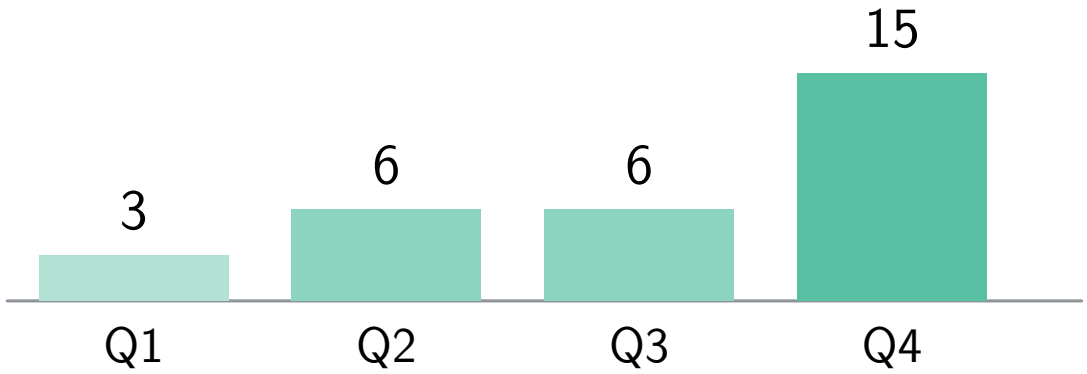
# 4.1

# HL methods, ethics and transferability: supported rehearsal

International Baccalaureate · IB Diploma · Psychology · HL

# 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.

# 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.

# 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).

# Exercises 2.1·2.2

**2.1** Distinguish intrinsic from extrinsic motivation, and name the three needs in self-determination theory. [3]




**2.2** Outline the results of Lepper, Greene and Nisbett (1973) and name the effect. [3]



# Exercises 2.1·2.2

**2.1** Distinguish intrinsic from extrinsic motivation, and name the three needs in self-determination theory. [3]




**2.1** Intrinsic motivation comes from enjoying the activity; extrinsic from rewards or punishments (1). Autonomy, competence and relatedness (2: all three for 2, two for 1).

**2.2** Outline the results of Lepper, Greene and Nisbett (1973) and name the effect. [3]



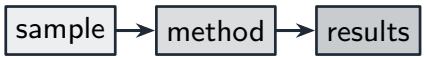

**2.2** Children who expected a certificate for drawing later spent about 9% of their free time drawing, against about 17–18% in the other groups (2). The overjustification effect: the reward became the reason for the activity (1).

# Exercises 2.3·2.4

**2.3** Explain why WEIRD samples are a problem when findings are applied to students in China. [2]




**2.4** Five students' daily gaming times in hours are 3, 5, 5, 6 and 21. Calculate the mean, the median and the mode, and say which best describes a typical student. [4]



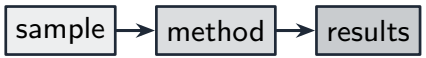
# Exercises 2.3·2.4

**2.3** Explain why WEIRD samples are a problem when findings are applied to students in China. [2]




**2.3** About 96% of participants come from Western, industrialised countries holding about 12% of the world's people (1), so a finding may reflect that culture and must be tested before it is applied in China (1).

**2.4** Five students' daily gaming times in hours are 3, 5, 5, 6 and 21. Calculate the mean, the median and the mode, and say which best describes a typical student. [4]




**2.4** Mean $= 40 \div 5 = 8$ hours (1); median 5 (1); mode 5 (1). The median (or mode), because the one extreme score of 21 pulls the mean up (1).

# Exercises 2.5·2.6

**2.5** Interpret $r = -0.56$ and $r = +0.08$. [2]

sample → method → results

**2.6** One study reports $p = 0.03$, another $p = 0.20$. State what each means for the null hypothesis. [2]

sample → method → results

# Exercises 2.5·2.6

**2.5** Interpret $r = -0.56$ and $r = +0.08$. [2]




**2.5** $-0.56$: a moderate negative correlation; as one variable rises the other tends to fall (1). $+0.08$: almost no linear relationship (1).

**2.6** One study reports $p = 0.03$, another $p = 0.20$. State what each means for the null hypothesis. [2]




**2.6** $p = 0.03$: below 0.05, so the result is statistically significant and the null hypothesis is rejected (1). $p = 0.20$: not significant; the null hypothesis is retained (1).

# Exercises 2.7·3.1

**2.7** Explain why Orben and Przybylski's (2019) data cannot show that social media lowers well-being. [2]




**3.1** *(Paper 3 question 1.)* Explain one issue that limits the interpretation of the data in Source C. [3]



# Exercises 2.7·3.1

**2.7** Explain why Orben and Przybylski's (2019) data cannot show that social media lowers well-being. [2]




**2.7** The data are correlational (1), so the direction of cause is unknown: unhappy teenagers may use more social media (1). (Also accept: the effect explained at most 0.4%.)

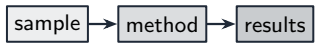
**3.1** *(Paper 3 question 1.)* Explain one issue that limits the interpretation of the data in Source C. [3]



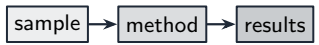

**3.1** Any one, developed: the hours are self-reported, so students may under-report gaming (social desirability) (1), which weakens the measure of the IV (1) and could hide or exaggerate the link (1). Or: one city's students may not represent others; or: correlation cannot show cause.

# Exercises 3.2·3.3

**3.2** *(Paper 3 question 2.)* Analyse the findings in Source C and state a conclusion linked to the claim. [6]




**3.3** *(Paper 3 question 3.)* Discuss how the researcher could improve the credibility of the findings in Source D. [6]



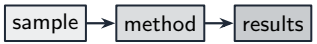
# Exercises 3.2·3.3

**3.2** *(Paper 3 question 2.)* Analyse the findings in Source C and state a conclusion linked to the claim. [6]




**3.2** The correlation is $r = -0.12$, a very weak negative relationship (1): students who game more score only slightly lower (1). $p = 0.09$ is above 0.05, so the result is not statistically significant (1); it could be due to chance (1). Even a significant result would be correlational: weaker students might game more, not the reverse (1). Conclusion: Source C gives little support to the claim (1).

**3.3** *(Paper 3 question 3.)* Discuss how the researcher could improve the credibility of the findings in Source D. [6]

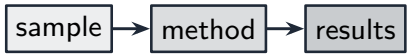



**3.3** Triangulation: add interviews with students and teachers, or compare with test data, so the themes do not rest on parents' views alone (2). A second coder checks the themes and the agreement is reported (1). Member checking: show parents the themes to confirm they reflect what they meant (1). A wider sample, beyond one school's parent group, which may hold similar views (1). Reflexivity: the researcher records her own views on gaming, which may have shaped the coding (1).

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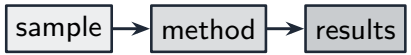
# Exercise 3.4

**3.4** *(Paper 3 question 4.)* To what extent do Sources C and D support the claim? Write a plan of six points, ending with a judgement. [15]



# Exercise 3.4

**3.4** *(Paper 3 question 4.)* To what extent do Sources C and D support the claim? Write a plan of six points, ending with a judgement. [15]




**3.4** One mark for each well-developed point, up to 6 for the plan, judged with the full Paper 3 criteria. Model plan: (1) The claim is causal, so the evidence must show more than a link. (2) Source C: very weak, non-significant correlation; little support. (3) Source C's self-report and correlational design limit it further. (4) Source D: parents describe less homework time and late nights, a possible route from gaming to results, which supports the claim. (5) But Source D is eight parents and one coder, so credibility and transferability are low, and it also shows a benefit (friendships). (6) Judgement: the sources suggest at most a small effect and cannot show cause, so the claim is only weakly supported.

Review guidance: the r value, the p value, cause and a linked conclusion; why the median; (R1 3.4) the sources weighed, not listed. Authored guidance.