

Exercise walk-through

7.1

Motivation, stress and evidence in sport

International Baccalaureate · IB Diploma · Sports, Exercise and Health Science · H

7.1 Motivation, stress and evidence in sport

Name: _____ Class: _____ Date: _____ **Total: 10 marks**

KEY WORDS coping • motivation

Objective

Motivation, stress and evidence in sport. Supported HL concept preparation; original classroom practice, not an official IB paper or assessed learner work.

1 Key knowledge and worked examples

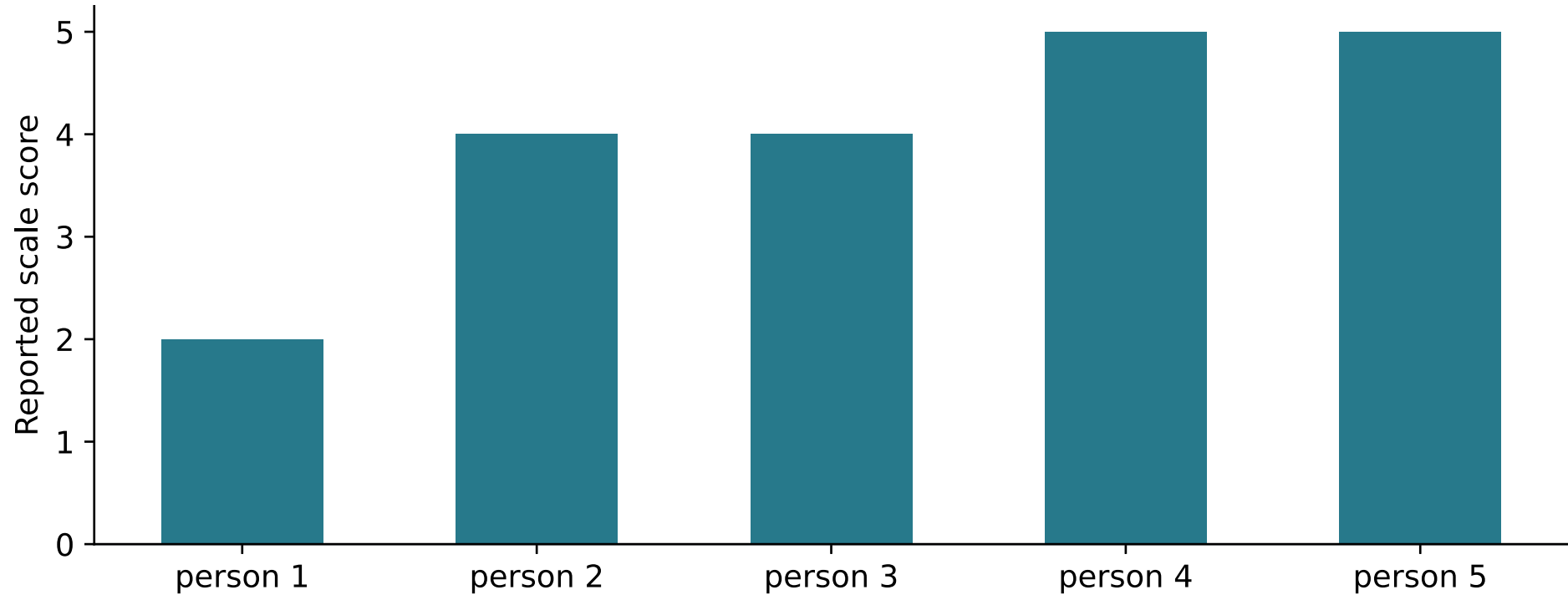
■ What would explain this observation?

- Two athletes can react differently to the same competition. Their appraisal, experience and **coping** strategies affect the response.
- Start with a prediction. State the quantities or features you would compare, then decide what evidence could distinguish two explanations.

■ Build the model

- **Motivation** concerns initiation, direction and persistence of behaviour. Stress depends partly on the relationship between perceived demands and perceived resources. Arousal and anxiety are related but distinct constructs.

- motivation: Processes influencing initiation and persistence; coping: Strategies used to manage demands.



■ Choose evidence that can test it

- A self-report scale measures reported experience under its design. It does not diagnose a disorder or establish a universal relationship between arousal and performance. Analyse within-person and between-person variation separately.
- Use anonymous voluntary questionnaires approved by the school, avoid sensitive personal disclosure, and allow withdrawal. Compare the same task and time point, define the scale and explain its limitations.

■ Work from known quantities

- State the known values and their units. Choose the relation because its assumptions

fit this case, then rearrange before substitution.

- Known: reported scores are 2, 4, 4, 5 and 5. Mean = $\text{sum}/\text{count} = 20/5 = 4$. Range = maximum-minimum = $5-2 = 3$. The mean summarizes this sample and scale, without proving why the participants differ.

Example:

Scores are 3, 5, 5 and 7. Find the mean. Use the same sequence: known quantities $\rightarrow$ model $\rightarrow$ relation $\rightarrow$ substitution $\rightarrow$ unit and interpretation.

■ Check the conclusion and its limits

- Correlation does not prove that stress caused a performance result. Students should not induce distress to investigate coping.

- Return to the original observation. Explain what the result supports, which conditions it assumes, and one way to test a competing explanation.

Warn:

A self-report stress score is a medical diagnosis. This claim is false: Correlation does not prove that stress caused a performance result. Students should not induce distress to investigate coping.

Key:

Motivation, stress and evidence in sport: A self-report scale measures reported experience under its design. It does not diagnose a disorder or establish a universal relationship between arousal and performance. Analyse within-person and between-person variation

separately.



Exercises 2.1-2.3

2.1 Which classroom approach is ethically appropriate? Choose one answer.

- **A** Induce distress deliberately
- **B** Use an approved voluntary anonymous questionnaire
- **C** Diagnose participants from one scale score

[1]

2.2 Scores are 3, 5, 5 and 7. Find the mean. Show the relation, substitution and units.[2]

2.3 Decide whether this claim is true and justify: A self-report stress score is a medical diagnosis. [2]

Exercises 2.1-2.3

2.1 Which classroom approach is ethically appropriate? Choose one answer.

- **A** Induce distress deliberately
- **B** Use an approved voluntary anonymous questionnaire
- **C** Diagnose participants from one scale score [1]

2.1 B A self-report scale measures reported experience under its design. It does not diagnose a disorder or establish a universal relationship between arousal and performance. Analyse within-person and between-person variation separately.

2.2 Scores are 3, 5, 5 and 7. Find the mean. Show the relation, substitution and units.[2]

2.2 $\text{Mean} = (3 + 5 + 5 + 7) / 4 = 5.$

2.3 Decide whether this claim is true and justify: A self-report stress score is a medical diagnosis. [2]

2.3 False. Correlation does not prove that stress caused a performance result. Students should not induce distress to investigate coping.

Exercises 2.4·3.1

2.4 Processes influencing initiation and persistence: write the technical term. [1]

3.1 Fictional scores are 2,4,6,8 and 4,4,6,6. Compare means and ranges. Why does equal mean not show equal responses or a cause? [4]

Exercises 2.4·3.1

2.4 Processes influencing initiation and persistence: write the technical term. [1]

2.4 motivation. motivation means Processes influencing initiation and persistence.

3.1 Fictional scores are 2,4,6,8 and 4,4,6,6. Compare means and ranges. Why does equal mean not show equal responses or a cause? [4]

3.1 Both means are 5; ranges are 6 and 2. Distributions differ. Scale validity, sampling and conditions matter; aggregate means do not prove psychological mechanisms.