

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. Original classroom practice for IB HL; not an official IB paper.

1 Key knowledge and worked examples

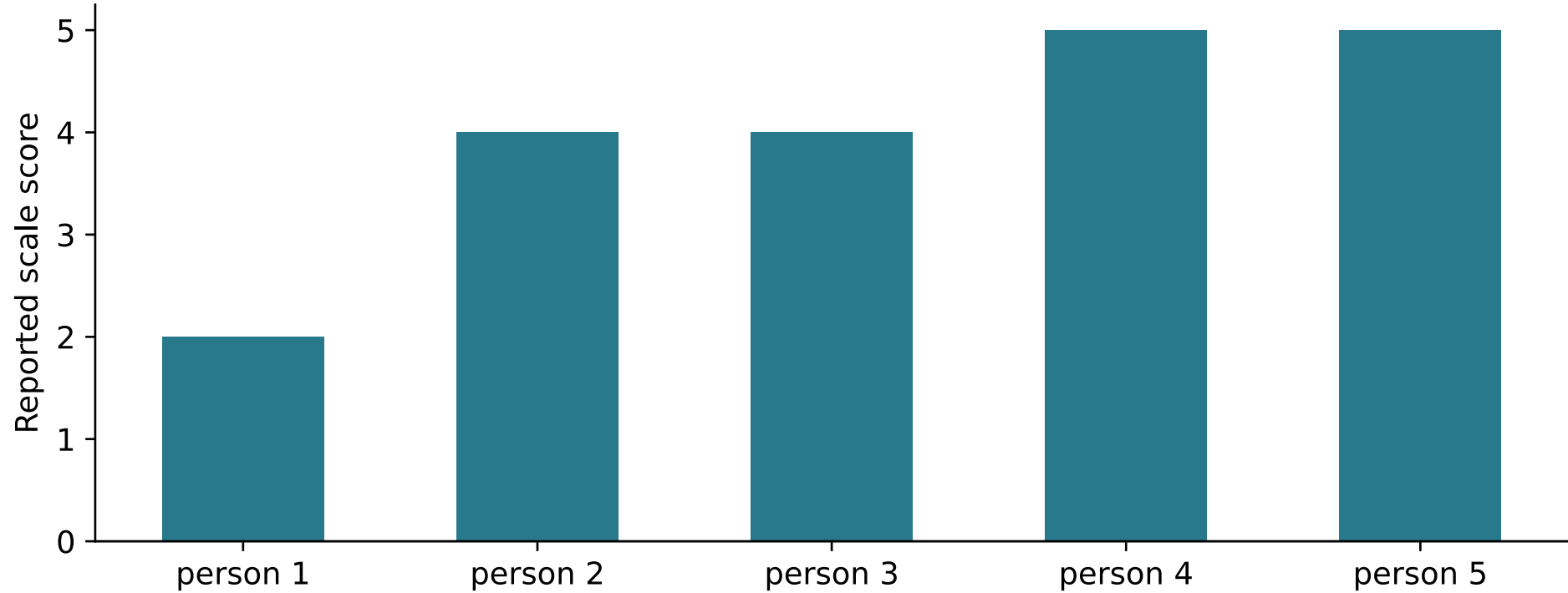
■ What would explain this observation?

- Two athletes can react differently to the same competition. Their appraisal, experience and **coping** strategies affect the response.

■ 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.

In the lab: 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

- Known: reported scores are 2, 4, 4, 5 and 5.

- Mean = sum/count = $20/5 = 4$.
- Range = maximum-minimum = $5-2 = 3$.
- The mean summarizes this sample and scale, without proving why the participants differ.

Your turn: Scores are 3, 5, 5 and 7. Find the mean.

■ Check the conclusion and its limits

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

Not true: A self-report stress score is a medical diagnosis. A self-report score is a subjective indication on one scale on one day. A medical diagnosis requires qualified

clinical assessment; a questionnaire cannot provide it.

Key:

- Motivation concerns initiation, direction and persistence of behaviour.
- A self-report scale measures reported experience under its design.
- Watch for: correlation does not prove that stress caused a performance result.

■ **Write from a mean of 6**

- Reported scores are 3, 3, 4, 8 and 12.

- Find the mean and the range. A self-report score is not a medical diagnosis.



Exercises 2.1-2.3

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

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

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

2.1 A Research with people needs voluntary, informed, low-risk participation, so an approved anonymous questionnaire is acceptable. Deliberately inducing distress fails ethics, and one questionnaire score is not a clinical diagnosis.

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. A self-report score is a subjective indication on one scale on one day. A medical diagnosis requires qualified clinical assessment; a questionnaire cannot provide it.

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.