Exercise walk-through

7.1 Motivation, stress and evidence in sport

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

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SPORTS, EXERCISE AND HEALTH SCIENCE · SL • EXERCISE SHEET

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 SL; not an official IB paper.

1 Key knowledge and worked examples

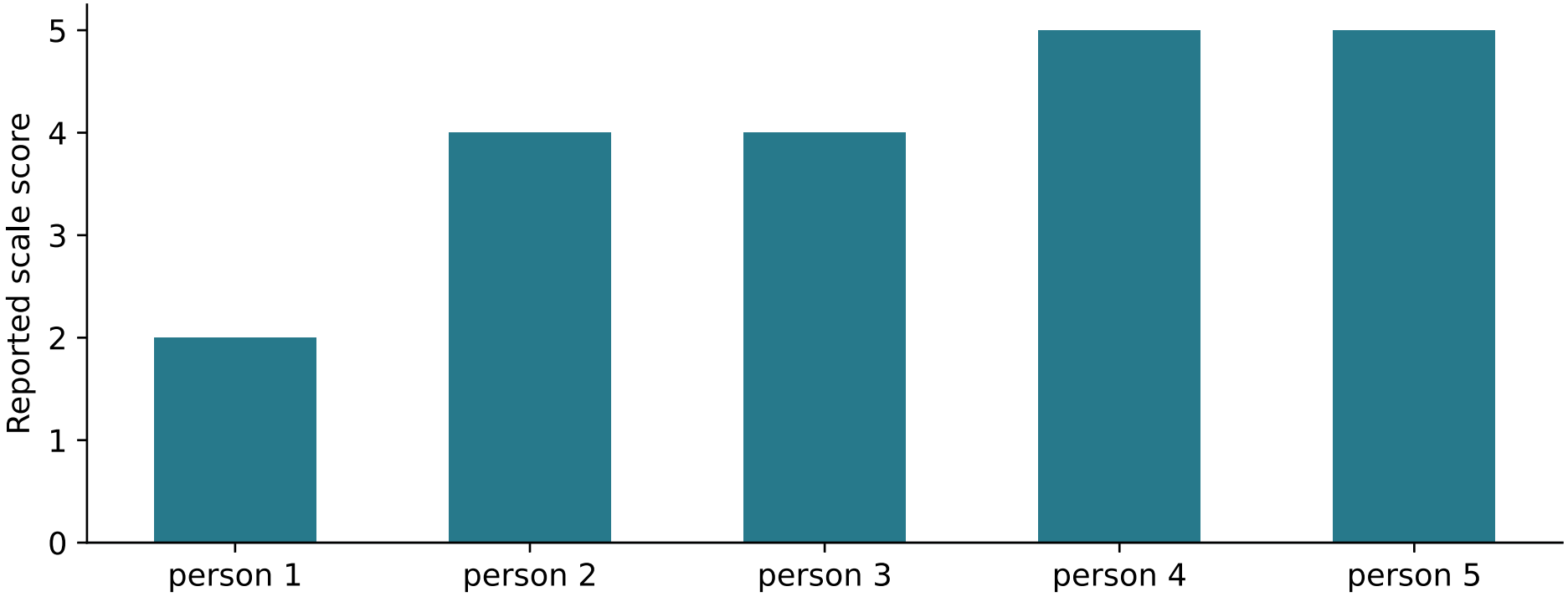
What would explain this observation?

- 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 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.