7.1 Historical perspectives and psychometric interpretation: evidence and transfer

Name: _____ Class: _____ Date: _____ **Total: 8 marks**

KEY WORDS reliability • validity

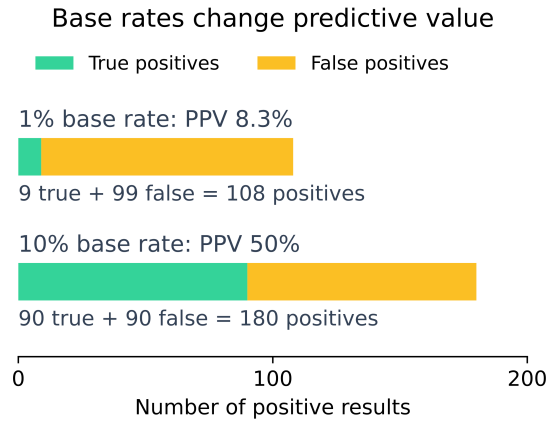
Objective

Distinguish major psychological perspectives; Interpret test reliability and validity; Use standardisation and base-rate reasoning. Original practice and authored marking guidance.

1 Key knowledge and worked examples

reliability : Consistency of measurement under specified conditions. **validity** : Evidence supporting a particular interpretation and use of scores.

A norm describes relative standing in a reference population; a mastery criterion describes a specified performance standard. A high percentile is not the same as a high percentage correct. Standardized administration reduces avoidable procedural variation, but the norm sample must still fit the intended use. Psychological perspectives can ask complementary questions; differences in emphasis do not make every observation decisive for one school.



1,000 people; sensitivity = specificity = 90%.

Worked case. A learner is at the 80th percentile on a normed test and answers 60% correctly. Is this contradictory?

No. Percent correct compares correct responses with all items. Percentile compares the learner's score with scores in a reference group. A difficult test can produce both figures. State the norm population and the particular comparison rather than replacing one measure with the other.

2 Practice

2.1 A test gives consistent scores but measures a different construct. It may have: [1]

A. high reliability but poor validity B. perfect validity by definition C. no measurement error ever

2.2 Organised wholes in perception are especially associated with: [1]

A. Gestalt psychology B. classical conditioning alone C. trait scoring alone

2.3 Revisit the worked case. State one conclusion its evidence supports and one stronger conclusion it does not support. Explain the difference. [2]

3 Exam-style questions

3.1 In 2,000 fictional cases, 20 meet a target definition. A screen flags 18 of these and 198 of the others. Compute the fraction of positive screens that meet the definition. Give the interpretation, supporting reasoning, a relevant alternative or limitation, and an appropriate check. [4]

Solutions

2.1 Answer: A. Consistency and construct evidence are different. The other options do not satisfy the stated defining conditions.

2.2 Answer: A. Gestalt accounts emphasise the structure of perception. Compare the exact process, design or evidence, rather than an associated keyword.

2.3 Use the worked case evidence to support a bounded claim and explain why a causal, universal or stronger claim needs additional evidence. The claim must fit the specific design and observed process.

3.1 True positives=18; false positives=198; all positives=216. Positive predictive value=true positives/all positives=18/216=0.0833, or 8.3%. Sensitivity=18/20=90%, which answers a different conditional question. Low base rate explains the contrast. This arithmetic is not a diagnostic recommendation. Award B1 each (authored) for the interpretation, its reasoning, a relevant limitation/alternative and an appropriate check, up to four points. Accept a different justified answer satisfying these demands.