Statistics and Data Analysis Literacy for Nurses 1st edition Schreiber Test Bank

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Chapter 2

1. Cronbach's alpha is used when there are more than three raters being used to score a performance.

*False

RATIONALE: *With raters, Kappa should be used.*

2. IRT analysis allows for the examination of the level of a participant's latent trait on an item or scale.

*True

RATIONALE: *IRT is a latent trait analysis technique.*

3. Writing a directional hypothesis allows one to test for either experimental or control group to perform better.

*False

RATIONALE: *This is for nondirectional hypotheses.*

4. The sentence "Those with 15 mg of medication X will have a greater reduction in pain compared to those with 10 mg" is a null-hypothesis statement.

*False

RATIONALE: *This is an alternative hypothesis statement*

5. Dependent variables are those that are manipulated by the researcher.

*False

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RATIONALE: *That is the definition of independent variable.*

6. Reliability is determined by the test statements.

*False

RATIONALE: *Reliability is based on the stability of the responses (the data).*

7. Maija is reading a survey item she received from her bank. It reads, “Our service today was Superior, Excellent, Good, Fair, Poor with 4 being Superior, and Poor being 0.” Based on this what type of scale is being used.

A. Nominal

*B. Ordinal

C. Interval

D. Ratio

RATIONALE: *This is an ordinal scale because it is in order highest to lowest, and the differences between Superior and Excellent, Excellent and Good, and so on are not equal*

8. CTT theory is based on understanding that the observed score is a composite of the True Score of a participant and the error associated with that score.

*True

RATIONALE: *Definition of observed score*.

8. Kira Rudik is worried about the reliability that will be observed after she collects data for an instrument she is developing. The easiest way in increase Cronbach’s alpha for reliability is

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A. Make all the items extremely similar

B. Make sure each item is discussing the same topic

C. Pilot test the items to see what people think

*D. Increase the number of items on the survey.

RATIONALE: *Increasing the number of items automatically increase alpha because of the mathematics in the equation*.

9. Lesia has developed a new nursing personality instrument and is concerned about how it might be used outside of research. Lesia is most worried about which validity:

*A. Consequential

B. Construct

C. Content

D. Divergent

RATIONALE: *Consequential validity, because she is worried about the consequences of others using the instrument*.

10. Inna is working on a new observation instrument for second-degree nursing students. What issues will she need to focus on in relation to measurement (e.g., scale, reliability, validity)?

**The results will vary based on what the students write. The answers should focus what makes a quality instrument and should follow the information in the chapter.*

11. Claudia has been tracking the number of times students furrow their brows in organic chemistry as the lecturer discusses the topics. The data collected is

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A. continuous (e.g., interval type) and probability normally distributed.

*B. categorical data (count) and is probably not normally distributed.

C. ratio data because there is true zero.

D. nominal data because each individual is different.

RATIONALE: *Categorical count data that will most likely follow a Poisson distribution. But this is a common mistake where frequency data are thought to be continuous.*

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