Educational Psychology Program
Signature Assignment for EDP 541 Project

Student Learning Outcome(s) Assessed

SLO #2: Employ measurement theories to critique educational assessment.

Description of the Signature Assignment

The purpose of this signature assignment is for candidates to develop skills in conducting item analysis, examining test reliability and validity, and writing a mini technical report on psychometric properties of an assessment. The candidates' ability such as applying measurement theories and reviewing an assessment critically can be measured by their observed performance on the assignment.

Directions for Students

Total possible points = 40

Candidates should examine the provided data carefully. The report should be typed, single-spaced with a standard 12-point font, and submitted in hard copy. The detailed guidelines for the report are as follows:

Chapter 1: Introduction (2 - 4 pages)
- Provide a brief description of the purpose and contents of the report.
- Provide an overview of the test purpose, population of test takers, and test composition (e.g., item type, alignment of items with each subtest).
- Provide summary statistics of the total and subtest scores by different demographic groups of interest. At least one graphical presentation of summary statistics should be included.

Chapter 2: Test reliability (2 - 4 pages)
- Apply appropriate psychometric procedures to examine test reliability.
- Provide rationales for using particular procedures over other alternatives.
- Provide the reliability coefficient(s) and the standard error of measurement.
- Interpret the results and discuss the strengths and weaknesses of the test.

Chapter 3: Test validity (2 - 4 pages)
- Apply appropriate psychometric procedures to examine test validity.
- Provide rationales for using particular procedures over other alternatives.
- Provide the validity coefficient(s).
- Interpret the results and discuss the strengths and weaknesses of the test.

Chapter 4: Item analysis (2 - 4 pages)
- Provide item difficulty, discrimination, and fit indices (if applicable).
- Interpret the results and discuss the strengths and weaknesses of the test.

Scoring Rubric

Criteria (Weight)	4 = Exceeds expectations	3 = Meets expectations	2 = Meets some expectations	1 = Does not meet expectations	0 = Unable to score	Final Score
Summarizing and interpreting the test data (x1)	The summary and interpretations are focused, clear, and complete	The summary and interpretations are focused and clear, but somewhat incomplete	The summary and interpretations are somewhat vague or inaccurate	The summary and interpretations are overly vague and inaccurate	The summary and interpretations are completely inaccurate and incomplete	0-4
Applying psychometric procedures to examine test reliability (x2)	Major appropriate procedures are used in an accurate way	Some of major appropriate procedures are used in an accurate way	One of major appropriate procedures is used in an accurate way.	Major appropriate procedures are neglected	Psychometric procedures are completely misapplied or absent.	0-8
Applying psychometric procedures to examine test validity (x2)	Major appropriate procedures are used in an accurate way	Some of major appropriate procedures are used in an accurate way	One of major appropriate procedures is used in an accurate way.	Major appropriate procedures are neglected	Psychometric procedures are completely misapplied or absent	0-8
Applying psychometric procedures to conduct item analysis (x2)	Major appropriate procedures are used in an accurate way	Some of major appropriate procedures are used in an accurate way	One of major appropriate procedures is used in an accurate way.	Major appropriate procedures are neglected	Psychometric procedures are completely misapplied or absent	0-8
Diagnosing the strengths and weaknesses of the test (x2)	A substantial amount of key strengths and weaknesses are stated in a clear way	A limited amount of key strengths and weaknesses are stated in a clear way	At least one key strength and one key weakness are stated in a clear way	Key strengths and weaknesses are neglected	The stated strengths and weaknesses are completely inaccurate or irrelevant	0-8
Writing (x1)	Writing is clear and shows nearly perfect mechanics	Writing is generally clear and shows acceptable use of mechanics	Writing shows some clarity but unacceptable use of mechanics	Writing is unclear and mechanics are excessively flawed	Writing is completely disoriented and has excessive errors	0-4
Total						40

Legend

Total Points	College of Education Assessment Scale Equivalent
36-40	4 (Exceeds Expectations)
32-35	3 (Meets Expectations)
28-31	2 (Meets Some Expectations)
24-27	1 (Does Not Meet Expectations)
0-23	0 (Can't Score)