EPSY 8224

Performance Assessment Design & Analysis G-Theory Assignment

At the class website, there are a number of performance assessment GENOVA command files and output files. Three are based on Olympic data – these will be used in class to study the quality of the Olympics scores and the implications they have for Olympic judging.

Two other performance assessments are available, including:

**PxOxT**

Control file: pxoxt.txt with output file pxoxt.out

This contains the results of 10 persons assessed on two occasion (Monday and Friday) with 4 tasks on each occasion. This is a completely crossed design – each participant completed all four tasks administered on both occasion.

**PxR:T**

Control file: pxrt.txt with output file pxrt.out

This contains the results of 10 persons assessed on three tasks with four raters. However, raters are nested within tasks (R:T), which means that groups of four raters were each assigned to a different task – one group of 4 raters scored task 1, another group of 4 raters scored task 2, and a third group of 4 raters scored task 3. Raters specialized in each task.

This assignment asks you to review the G-Study variance components and D-Studies for **ONE** of the G-Studies above and respond to the questions below.

1. Define each variance component from the G-Study, report the estimated values for each of the variance components, and identify the major sources of error variance.

[Available in the table with the header: MODEL VARIANCE COMPONENTS]

1. What does this imply for the design of a performance assessment and the facets included in the G-Study you selected?
2. Examine the generalizability and dependability coefficients for this G-Study

(find the D-Study that contains the same number of facets used in the G-Study).

What do these coefficients imply for the current design?

[Each D-Study table has a header at the top of the page defining the D-Study number]

1. Review the results of each of the four D-Studies.

What is your overall interpretation of each of the D-Studies?

[Each set of D-Studies is summarized in a table with the header:

SUMMARY OF D STUDY RESULTS…]

1. Describe how you might use G-Theory in your proposed performance assessment.

This can help you think about the last section (f) of your PA project.

# A BRIEF GENOVA USER’S GUIDE

Copy GENOVA onto a floppy disk and place all control card files on the same floppy disk. You can also put these things in the same folder on your own computer. Or, in the computer lab, create a folder with your name in the “Temporary Save Folder” on the desktop and save these things in that folder.

The input file must be a text only file. White space must be used between parameters, not tabs.

The filename should be specified with extensions, like “.txt” or “.crd”

* Double click GENOVA.exe, a window will appear
* You will see the prompt “Unit 5?”
  + Type the name of the file containing the control cards and hit the return key
* You will see the prompt “Unit 6?”
  + Type the name for the output file and hit the return key
  + E.g.: output1.txt
* GENOVA will process the control cards and input data. When finished, the output file will be in the same folder as the GENOVA.exe application.

To replicate the sample output:

* Double click GENOVA.exe
* Unit 5? 🡪 type: sample.txt (this is the pre-prepared sample control file)
* Unit 6? 🡪 type: output.txt (this will be your newly generated output file)
* Open Microsoft Word or alternative 🡪 open output file output.txt
  + Layout
    - Set margins: Narrow - 0.5 (top, bottom), 0.5 (left, right)
    - Set orientation: Landscape
  + Editing 🡪 [Select all]
    - Set font: Courier New, 9 pt.

There will be several output pages that are not needed. Be judicious in deciding which pages to combine by removing page breaks, delete, and print.

**DO NOT ATTACH THE FULL OUTPUT. PULL THE TABLES THAT ARE RELEVANT FOR YOUR RESPONSES.**

The full GENOVA manual is available when you download the program.