**Reliability and Validity Assignment Instructions**

Complete the following assignment using the attached datasets. Use your results to answer the questions found in “Reliability and Validity Assignment Questions.” Click on that title and it will give you 10 questions to answer about your results and analysis.

**Part I: Universal Toys Dataset**

Universal Toys has developed several new measures to potentially use as assessments of job applicants. They collected responses and performance data from a sample of n = 48 current employees. Your task is to analyze the data and make conclusions about the new measures’ reliability and validity.

Definitions and response scale for each variable in the dataset are listed in the table below.

|  |  |  |
| --- | --- | --- |
| **Label** | **Definition** | **Range of Possible Values** |
| Emp ID | Employee ID | 1-48 (numbers are labels and have no meaningful numerical value) |
| ConscT1 | Conscientiousness Time 1 | 1-10 |
| Cog Abil | Cognitive Ability | 80-130 |
| Hiring Mgr | Interview Rating from Hiring Manager | 1-7 |
| HR Mgr | Interview Rating from Human Resources Manager | 1-7 |
| Performance | Job Performance | 10-50 |
| Consc T2 | Conscientiousness Time 2 | 1-10 |

1. Universal Toys wants to evaluate the test-retest reliability for a conscientiousness measure. To do this, they had each employee in the sample take the conscientiousness measure (ConscT1) and then complete it again 3 months later (Consc T2). Calculate the test-retest reliability of the conscientiousness measure.
2. Calculate the validity coefficient for each of the following predictor variables using performance as the criterion variable.
   1. ConscT1
   2. Cog Ability
   3. Hiring Mgr
   4. HR Mgr

**Part II: Time Management Scale from Student Dataset**

The following questions were written by previous Staffing students to measure time management. I’ve already reverse coded the questions that needed to be reverse coded before calculating reliability.

|  |  |  |
| --- | --- | --- |
| **Label** | **Question Wording** | **Response Scale** |
| TM\_1R | I often find myself procrastinating on assignments and studying. | 5 = Strongly Agree  4 = Agree  3 = Neither Agree nor Disagree  2 = Disagree  1 = Strongly Disagree |
| TM\_2 | I regularly use a calendar/agenda/planner to plan my school work. |
| TM\_3 | I tend to plan ahead when I study for tests. |
| TM\_4R | I tend to cram for tests the day before the exam. |
| TM\_5 | I prioritize and plan my activities for each day. |

1. Calculate Cronbach’s alpha (internal consistency reliability) for the time management scale (formula provided below).

k = number of items (survey questions)

Mean ri = average item correlation

*Now that you’ve completed all the analyses, go to “Reliability and Validity Assignment Questions” to answer questions about your results.*