A Correlational Study with College Students

The purpose of this laboratory project is to gain some experience with the correlational method of data collection and analysis. As a class, we will select a few of the personality measures listed below and explore relationships between these measures and other variables of interest to college students. A computerized version of the following measures are available — Achievement Anxiety Test (AAT) ((Alpert & Haber, 1960), The Computer Anxiety Scale (Cohen & Waugh, 1989), State Anxiety Inventory (Spielberger, et al., 1970), Personality type A/B (Jenkins, Ayzanski, Rosenman, 1971), Locus of Control (Rotter, 1966) and handedness. Other variables that we may wish to also include in our study are: GPA, course grade, gender, birth order, amount of sleep, frequency of headaches, and class standing.

Questionnaires

The Achievement Anxiety Test (AAT) is a 19 item questionnaire consisting of facilitating anxiety scale, which measures the degree to which test anxiety improves student performance, and a debilitating anxiety scale which measures the interference effect of test anxiety. The test-retest reliability of the AAT is high (r = .75) and performances on the two scales are found to be negatively correlated (r's range from -.37 to -.48) (Alpert & Haber, 1960).

The Computer Anxiety Scale is a 16 item questionnaire that measures amount of computer anxiety. The test has a high internal consistency (r=.95) and performance on the Computer Anxiety Scale is negatively correlated with experience with computers (r=-.48) (Cohen & Waugh, 1989). Spielberger’s State Anxiety Inventory consists of 20 items that ask how a person feels now, and reflects situational factors that may influence anxiety levels. Scores range from 20 to 80 and the higher the score the greater the level of anxiety.

Personality type A/B is a modified version of the Jenkins Activity Survey. This survey was originally formulated to detect behaviors which lead to heart attacks (Jenkins, Ayzanski, Rosenman, 1971). Type A personality generally refers to hard workers who are often preoccupied with schedules and the speed of their performance. Type B personalities may be more creative, imaginative, and philosophical. The test consists of 30 multiple-choice items. Scores range from 35 to 380. Type A is associated with a high score while Type B is associated with a low score.

The Locus of Control is a 13 item questionnaire developed by Rotter (1966). It measures generalized expectancies for internal versus external control of reinforcement. People with an internal locus of control believe that their own actions determine the rewards that they obtain, while those with an external locus of control believe that their own behavior doesn't matter much and that rewards in life are generally outside of their control. Scores range from 0 to 13. A low score indicates an internal control while a high score indicates external control.

The Sidedness questionnaire (Coren, 1992) consists of 12 items which measure three major aspects of sidedness other than handedness: footedness, eyedness, and earedness. The questionnaire identifies which foot, eye and ear are dominant and also measures the strength of these tendencies.
Data Analysis

To set-up the data file, Go to File menu and select new, use a column for each measure. Make sure that all the data from a subject is placed in the same row of the data set.

From the Statistics menu, select 'Correlations' and then 'bivariate'.

* The variables in your data set will appear in the window on the left. Select all the variables that you wish to correlate. Press O.K.

* Calculate means and SD for all of the measures by clicking on Descriptive statistics in the Analyze menu.

* Plot the significant relationships--click on Graph menu and select "scatter" and then "simple"

Sources


