Activity 2.2: Contingency Tables, and Accuracy Measures

Contingency Tables

This data comes from a study testing whether exercising without first stretching would cause more injury.

1. Import the Excel file **Dataset_2a.xlxs** (accompanying Activity 2) to SPSS.
2. In the **Values** column for the variable **Stretch**, enter 1 = stretch, 2 = Does not Stretch.
3. In the **Values** column for the variable **Injury**, enter 1= injury in past year, 2 = no injury
4. Using SPSS, construct a 2 x 2 contingency table with the Stretch and Injury variables. SPSS will set it up as shown below

	Injury in Past year	No injury in Past Year	Total
Stretch	*values*	*values*	row total
Does Not Stretch	*values*	*values*	row total
Total	column total	column total	grand total

5. Find percentages based on the column totals.

Accuracy Measures

The following dataset is from the rating of a new hepatitis test. The two variables are Disease and Test.

The variable Disease gives whether the person actually has the disease, and has the categories 1, has disease, and 2, does not have the disease.

The Test variable gives the results of the test. The Test variable has the categories P, tests positive for the disease, and N, tests negative.

1. Import the Excel file **Dataset_2b.xlxs** (accompanying Activity 2.2) to SPSS.
2. In the **Values** column for the variable **Disease**, enter 1 = has disease, 2 = Does not have disease.
3. In the **Values** column for the variable Test, enter P = tests positive, N = tests negative
4. Using SPSS, construct a contingency table
5. Find the Sensitivity, Specificity, Probability of a False Negative, Probability of a False Positive
6. Find the Predictive Value Positive and the Predictive Value Negative of the test.

★ Please create a copy of the Excel file and use the duplicate to complete the activity. Ensure no changes are made to the shared file