

PRACTICAL Week 3 – Chi-square test and T-test

1. Open dataset students.sav
2. Paste all calculations and answers to syntax file and save it regularly!
3. Test whether there is statistically significant association between gender and reporting sleep problems in the past 12 months.
 - a. Recode Sleep_prb into a binary variable specifying whether the participant reported *any* occurrence of sleep problems vs *never* had sleep problems in the past 12 months.
 - b. Generate crosstabulation with observed and expected values and their percentages.
 - c. Test whether the difference between observed and expected values is significant.
4. Answer the following questions:
 - a. What proportion of total sample reported sleep problems?
 - b. What proportion of total sample did not report any sleep problems?
 - c. What proportion of females reported sleep problems?
 - d. What proportion of females did not report any sleep problems?
 - e. What proportion of males reported sleep problems?
 - f. What proportion of males did not report any sleep problems?
 - g. Based on the proportions, which gender seems more likely to report sleep problems?
 - h. Is the association between gender and reporting sleep problems significant?
 - i. What is the χ^2 value? How many degrees of freedom do we have?
 - j. How strong does the association look?
 - k. Write-up the results.
5. Test whether there is statistically significant association between gender and height.
 - a. Check whether DV is normally distributed in both groups.
 - b. Test whether males and females statistically significantly differ in average height.
6. Answer the following questions:
 - a. What is the mean height in the sample of males? SD? Sample size?
 - b. What is the mean height in the sample of females? SD? Sample size?
 - c. Based on the means, which gender seems taller?
 - d. Is the association between gender and height significant?
 - e. What is the t value? How many degrees of freedom do we have?
 - f. How strong does the association look?
 - g. Write-up the results.

Optional:

7. Test whether there is statistically significant association between gender and number of hours slept per night.
 - a. Which test are you going to use?
 - b. Do all steps needed to obtain the results and write them up.

Submit your practical:

1. Save your syntax file to Homework Vaults