**TU Dublin City Campus**

**Probability and Statistical Inference**

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**Week 6 Practical**

**Differences**

**Step 1.** Download the zip file from Brightspace or the website that contains the datafiles we are using this week. Unzip to a location that makes sense for you and make sure you know how to access the data from within RStudio.

Dataset Descriptors:

* Sleep: http://spss5.allenandunwin.com.s3-website-ap-southeast-2.amazonaws.com/Files/sleep\_codebook.pdf
* Survey: http://spss4.allenandunwin.com.s3-website-ap-southeast-2.amazonaws.com/Files/survye\_codebook.pdf
* Youthcohort: http://cw.routledge.com/textbooks/9780415372985/pdfs/youthcohort.pdf
* Bullying: http://cw.routledge.com/textbooks/9780415372985/pdfs/bullying.pdf

**Step 2.** Review the following R markdown (and HTML output generated from these):

ANOVA Examples: PSIWeek6-ANOVA-sleep.rmd, PSIWeek6-ANOVA-survey.rmd

Kruskal-Wallis Example: PSIWeek6-KruskalWallis.rmd

Chi-Square Example: PSIWeek6-Nominal.rmd

**Step 3**. Using the Survey dataset from Julie Pallant, investigate the following questions (you need to decide which test to use, run the test and interpret the finding):

* Does age impact total self-esteem scores (tslfset) ? (variables: tslfest, agegp3)
* Does education level impact total percevied stress scores for participants with different education levels (educ)? (variables: tpstress, educ)

**Step 4:** Using the Youthcohort SPSS dataset from Paul Connolly investigate the following question (you need to decide which test to use, run the test and interpret the finding):

* Are there differences in GCSE Maths grades (gradmath) achieved by students with parents of different educational attainment (s1pared)? (variables: gradmath, s1pared)

**Step 5:** Using the Youthcohort SPSS dataset from Paul Connolly investigate the following question (you need to decide which test to use, run the test and interpret the finding):

* Does a parent’s educational attainment impact on whether student sat GCSE maths? (variables: satmath, s1pared)