Modeling Different Sources of Variability in Human Factors Experiments, TRB WORKSHOP 2020

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PART I – R Basics

1. Installing R

Visit the Comprehensive R Archive Network (CRAN) (https://cran.r-project.org/) and select a mirror site; a list of CRAN mirrors appears at the upper left of the CRAN home page. You can use the 0-Cloud mirror, which is the first on the list. Click on the link Download R for Windows (or Download R for MacOS), which appears near the top of the page; then click on install R for the first time, and subsequently on Download R x.y.z for Windows (or MaxOS X) (where x.y.z is the current version of R). Once it is downloaded, double-click on the R installer. You may go with all of the defaults.

2. Intro to R workspace and R scripts

There are three windows that you will use in R. The main window which is called the <u>console</u> is where you can both type commands and see the results/outputs of executing these commands (Figure 1). Instead of writing commands directly into the console, you can use the second window (i.e. the <u>editor</u> window) by creating a new *R script*. The advantage of using *R scripts* is that you can easily save it for later use. Finally, the graphics window is where your graphs will appear in case you produce any.



Figure 1: R workspace and R scripts