**Introduction to R (using our tutorial and/or the *swirl* library)**

Next to the statistical program SPSS this course will contain assignments and exercises that need to be executed with the statistical program 'R'. R is a very versatile programming language with all kinds of (statistical) functions built in. It has great graphical possibilities, and a very active community to help you along when you’re stuck.

There is however a drawback: R has a steep learning curve, meaning that it is not as easy to learn as GUI (graphical user interface) based programs, where you can select your commands by pointing and clicking. In R you have to type your commands yourself. This has obvious disadvantages, but a big plus is the fact that you are more aware of what you are asking the computer to do.

We strongly recommend that you use RStudio, which is an IDE (interactive development environment) that facilitates the interaction with R.

There are two tutorials that can help you install and master RStudio or R more quickly. You can choose either or both:

2a) We have developed a tutorial to help you get acquainted with RStudio. Go to <http://r-tutorial.nl/> and follow the instructions.

2b) Use the R package (or “library”) *swirl*. swirl is a software package for the R statistical programming language. Its purpose is to teach users statistics and R simultaneously and interactively.

Go to <http://swirlstats.com/students.html> and follow the four steps given there to get and install R, RStudio and swirl. After you have installed these, to start the swirl tutorial, do the following:

Open RStudio and install the *swirl* library by typing (**please retype the text instead of copying it**):

*install.packages(“swirl”)*

You can start the tutorial by typing:

*library(“swirl”)*

Followed by the command:

*swirl()*

The tutorial was developed for a course called “R Programming: The basics of programming in R”, so when you are asked the course name, choose option 1. Next choose “1: R programming”.

There are 15 lessons to choose from. Simply choose the first one, work through it, and at the end, when you are asked whether you are enrolled in the Coursera course associated with the lesson, choose “1: No”. You can immediately continue with lessons from “R Programming” or proceed at a later time; swirl will remember where you left off. It’s up to you how much time you want to spend exploring the lessons from R Programming; relevant to this course are lessons 1-9, 12 and 15.

After this tutorial you should have a clearer insight in how to work with R(Studio). Although R is also a powerful programming language, we will mostly use *pre-defined* functions that can be used without modification.