Network Analysis in R

2019-10-16

Contents

Overview

Materials for the 2.5 day Network Analysis course.

This course covers skills such as installing R, opening fies, data wrangling with tidyverse, and data visualisation with ggplot2. It also introduces network analysis as a statistical concept.

Chapter 1

Starting with R

Welcome to the Course!

1.1 Overview

Installing R and opening files

In this session you will learn:

1. What is R?
2. How to install R
3. How to open files.
4. How to maniuplate data and save scripts.

1.1.1 What is R?

1.1.2 Advantages of using R

Quickfire Questions

We have put questions throughout to help you test your knowledge. When you type in or choose the correct answer, the dashed box will change color and become solid green.

- From the following options, what is R? Statistical Programming Language Really Fun Cats

Explain This Answer!

People can click here to get answer explained.

Chapter 2

Working With Data in R

2.1   Overview

Chapter 3

Network Analysis

3.1 Overview

3.2 Background

Recent thinking conceptulises mental wellbeing as comprising of environmental, psychological and social factors. Psychologists wishing to study all of these factors together may wish to consider a complexity science perspective such as network analysis.

3.3 What is a network?

A network is a set of nodes connected by a set of edges.

Several packages are used in the network analysis, including `network`, `statnet`, `igraph` and `qgraph`.

qgraph was developed in the context of psychometrics approach by Dr. Sacha Epskamp and colleagues in 2012. We will be be working with `qgraph`.

Chapter 4

Practical

4.1 Description of Data

We will work with a local dataset gathered from high school age children.

Appendix A

References

Network Analysis Cookbook - Also covers R introduction

We are grateful to PsyTeachR from the University of Glasgow