Notes e-book

Generic chapters

Data analysis methods theory

MST chapters

F&MCR chapters

TFIH chapters

General formatting:

Whenever in narrative mentioning packages put them in bold: \*\*devtools\*\*

Index (work in progress):

1. Introduction to the book
2. (#, 01) Introduction to R – generic (MANGLER: speak Bodil of slide 4-5-6)
   1. (##) How to get started - understanding R (MANGLER: bullets – they are in one line now? Under 2.2.2)
   2. (##) How to import data (MANGLER: bullets)
      1. (###) Importing a csv file (MANGLER: bullets)
      2. (###) Importing an Excel file/sheet (MANGLER: Tabulator-thing to find file needs to be checked, new dataset?)
      3. (###) Clipboard import
      4. (###) Looking at the imported elements
      5. (###) Numbers and factors (MANGLER: R code suggestion to be checked)
   3. (##, 01) How to save your script (MANGLER: needs to be written, codes and text)
   4. (##, 01) How to save the data (MANGLER: should be simplified – code too complex here, maybe a speak of the codes?)
   5. (##, 01) Ready for analysis (MANGLER: maybe the code should be edited?)
   6. (##, 01) How to export tables and plots (MANGLER: Explanation, all of the R code, maybe move it to after the plotting and descriptive!)
   7. (##, 01) How to merge two datasets
      1. (###, 01) Import and merge in R
         1. (####, 01) Import
         2. (####, 01) Edit
         3. (####, 01) Merge
            1. (#####, 01) Adding survey to buffet
            2. (#####, 01) Adding buffet to survey
3. (#, 02) Introduction to PCA – generic (MANGLER: Text, videos and explanations)
4. (#, 02) Introduction linear and mixed models (ALT MANGLER)
5. (#, 04) Libraries (MANGLER: info on some coding)
6. (#, 04) Descriptive statistics (MANGLER: intro text)
   1. (##, 02) Loading data (MANGLER: Q for Morten)
   2. (##, 02) Distributions of count data (BODIL NÅET HERTIL I DET GENERISKE)
   3. (##, 02)
   4. (##, 02)
7. (#, 02) Plotting data
8. MST COURSE HERE
9. FMCR COURSE HERE
10. (#, 09) CATA data (Check-all-that-apply)
    1. (##, 09) Importing and looking at the beer data (MANGLER: one package is missing, is the data correct, BODIL: update the liking in the cata data sheet)
    2. (##, 09) Two versions of the data (MANGLER: Morten is my interpretation of the functions correct? Maybe add more)
    3. (##, 09) Cochran’s Q test
       1. (###, 10) Post hoc contrasts (MANGLER: Morten: explain the code in words)
       2. (###, 09) For all attributes in one run (nice to know) (MANGLER: Morten explain the code in words)
    4. (##, 09) PCA on CATA data (MANGLER: packages to install, explain the code in words, BOM: interpretation of the PCA plot – send by email)
11. (#, 10) Liking scores (MANGLER: intro text)
    * 1. (##, 10) Plotting liking scores (MANGLER: everything, Morten)
      2. (##, 10) Simple mixed models (MANGLER: more text, and new function okay?, explanation of output)
         1. (###, 10) Post hoc contrast (MANGLER: title correct?, more info in the beginning? Model explanation and output text)
      3. (##, 10) Multiway mixed models (MANGLER: check intro text, model. Write interpretation of output\*2)
12. (#, 11) CATA and liking scores
    1. PCA (Not at separate headline in 2022)
    2. ((PLS wait until 2023))
13. Projective mapping
    1. PCA on projective mapping data
    2. (MFA on projective mapping data)
14. TFIH exercises
15. (2023: PLS on CATA and liking data)

TO DO LIST:

Bodil

* Screen cast slide 4-5-6 in Bodils R intro presentation (overall/generic), insert in 01\_IntroChapters
* Re-arrange the whole book to match the new structure: make headlines to fit data types (=courses), and not statistical methods (ongoing)
* Write/edit through all the sections
  + Descriptive stats
  + Plotting data
  + CATA (Check-all-that-apply), done
  + Liking scores
  + CATA and liking scores
  + Projective mapping
* Find suitable data set for PCA on survey data for TFIH (the existing one is on MST data)
* ((Make screen casts of complicated codes section by section, this is a nice to have for the version for now, as it takes a long time))

Morten

* Look through the new setup/structure and rearrange if necessary
* Code for exporting model output as an Excel table (make headline so it is easy to find)
* Code for exporting plots
* Check all Rmds for [notes to answer] – a lot, sorry
* Compile book WITHOUT the “legumes”-sections and the “chapters”... Bodil knows what not to include for now...
* Write a “Smart tips and tricks” section (all the short codes, you always forget), e.g. :
  + rm(list = ls())
  + str()
  + find more... 😊
  + ask Julius for more

Bom

* Write through CATA introduction (10\_CATA)
* Explain CATA PCA output in e.g. screen cast
* Explain projective mapping PCA output in e.g. screen cast
* Explain mixed models output in e.g. screen cast

Helene

* Intro – Chose what to do.
* Initiere basic plots (outliere and distributions)
  + Histogram
  + Boxplots
  + Point plots med liner til dommer

**Notes from meeting 3/10-2022 (Hennnnrik, Bodil, Helene, Morten)**

Make introduction chapter with

* Definition of variables (ordinal, conti,…)
* How to choose statistical model (pointing towards the chapters, what is a multivvavriate problem? What is a univariate problem? )

Make chapter on sensory = “Aroma summer course”

MST course (mostly just descriptives and plots and **adding linear models**)

Food+Meal CR course (plotting /descrp. K.means, logit, profiling)

In the Master in Technology, we will use the material as go-to for self-brush-up on stats.

Can this chapter on PCA be used as general introduction to multivariate / PCA for foreing students? [**Ask Åsmund to review**].

Analysis of IFRO-kind-data

House-hold data

Single person

New data: twitter, recepies,…

Bodils egnes noter

Mixed models: Graphical user interface, text, application, Word

Description automatically generated

PCA on survey answers: 

CATA: Graphical user interface, text, application, email

Description automatically generated

Jeg mangler følgende i bogen:

* Mixed models på fx liking, hvor der ikke er gentagelse af dag, men fx smages 5 forskellige prøver per dag per forbruger. Kan være jeg bare skal skrive mere introtekst på til kapitel 7?
* PCA skal måske ligge som et separat punkt? Og ikke under CATA, for mig er det lidt rodet at der er tale om opdeling i både sensoriske metoder og statistiske metoder. Tænker statistikken er ”først”. Men hvis det giver mere mening for de studerende at det er opdelt per kursus, så kunne man evt. bare gentage info om fx PCA hvor det er relevant? Ellers et introkapitel hvor der står emner og så links til stat metoder som et overblik, og bogen så er er opdelt efter stat-metoder? Hvis det er CATA der er overskriften så skal vi også have en overskrift for ”Liking” mm.
* Med tiden skal PLS med
* Med tiden skal Introduction to R laves til Mortens format – med mindre der i FDA findes noget lignende

Intro til metode, opdeles i type af datasæt i overskrifter.

TFIH: CATA + Liking