R Data tutorial

Andrew Ithurburn

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library(DT)  
library(ggplot2)  
library(ggthemes)

## Warning: package 'ggthemes' was built under R version 4.0.4

library(tidyverse)

## -- Attaching packages --------------------------------------- tidyverse 1.3.0 --

## v tibble 3.1.0 v dplyr 1.0.5  
## v tidyr 1.1.3 v stringr 1.4.0  
## v readr 1.4.0 v forcats 0.5.1  
## v purrr 0.3.4

## Warning: package 'dplyr' was built under R version 4.0.4

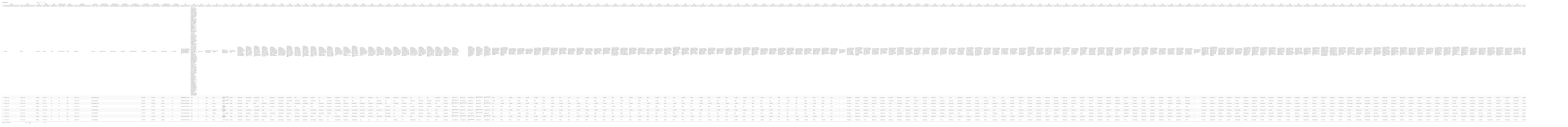
## -- Conflicts ------------------------------------------ tidyverse\_conflicts() --  
## x dplyr::filter() masks stats::filter()  
## x dplyr::lag() masks stats::lag()

library(papaja)  
experiment\_1\_Dataset <- read.csv("DoPL\_DOSPERT.csv", stringsAsFactors = FALSE)  
  
locfunc <- function(data, to){  
 which(colnames({{data}})=={{to}})  
}  
locfunc(experiment\_1\_Dataset, "DoPL\_1")

## [1] 25

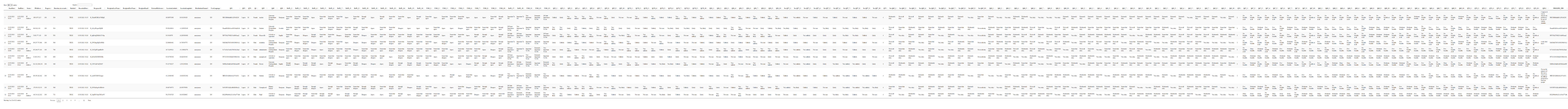
lfunc <- function(dataset, to, from) {  
 loc1 <- which(colnames({{dataset}}) == {{to}})  
 loc2 <- which(colnames({{dataset}}) == {{from}})  
 length({{dataset}}[loc1:loc2])  
}  
theme\_set(theme\_apa(base\_size = 12))

datatable(experiment\_1\_Dataset)



experiment\_1\_Dataset <- experiment\_1\_Dataset[-1:-2,]

datatable(experiment\_1\_Dataset)



varname <- "risk"  
varname2 <- "riskPerception"  
varname3 <- "riskBenefit"  
  
  
  
n <- lfunc(experiment\_1\_Dataset,"Q55\_1", "Yes.Q57\_10")  
n2 <- lfunc(experiment\_1\_Dataset, "Yes.Q65\_1", "Q62\_10")  
n3 <- lfunc(experiment\_1\_Dataset, "Q67\_1", "Q70\_10")  
  
  
names(experiment\_1\_Dataset)[locfunc(experiment\_1\_Dataset, "Q55\_1"):locfunc(experiment\_1\_Dataset, "Yes.Q57\_10")] <- unlist(mapply(function(x,y) paste(x, seq(1,y), sep="\_"), varname, n))  
names(experiment\_1\_Dataset)[locfunc(experiment\_1\_Dataset, "Yes.Q65\_1"):locfunc(experiment\_1\_Dataset, "Q62\_10")] <- unlist(mapply(function(x,y) paste(x, seq(1,y), sep="\_"), varname2, n2))  
names(experiment\_1\_Dataset)[locfunc(experiment\_1\_Dataset, "Q67\_1"):locfunc(experiment\_1\_Dataset, "Q70\_10")] <- unlist(mapply(function(x,y) paste(x, seq(1,y), sep="\_"), varname3, n3))

experiment\_1\_Dataset <- experiment\_1\_Dataset %>%  
 mutate\_at(vars(locfunc(experiment\_1\_Dataset, "Gender")), ~as.numeric(recode(.,"Male" = 0, "Female" = 1, "Gender Non-Binary" = 2))) %>%  
 mutate\_at(vars(locfunc(experiment\_1\_Dataset, "Education")), ~as.numeric(recode(., "Prefer not to say" = 0, "Primary School" = 1, "GCSEs or equivalent" = 2, "A-levels or equivalent" = 3, "University Undergraduate Program" = 4, "University Postgraduate Program" = 5, "Doctoral Degree" = 6))) %>%  
 mutate\_at(vars(locfunc(experiment\_1\_Dataset, 'Ethnicity')), ~as.numeric(recode(., "Prefer not to respond" = 0, "Scottish" = 1, "English" = 2, "European" = 3, "Latin American" = 4, "Asian" = 5, "Arab" = 6, "African" = 7, "Other" = 8))) %>%  
 mutate\_at(vars(locfunc(experiment\_1\_Dataset, "risk\_1"):locfunc(experiment\_1\_Dataset, "risk\_40")), ~as.numeric(recode(., "Very unlikely" = 1, "Unlikely" = 2, "Not sure" = 3, "Likely" = 4, "Very likely" = 5))) %>%  
 mutate\_at(vars(locfunc(experiment\_1\_Dataset, "riskPerception\_1"):locfunc(experiment\_1\_Dataset, "riskPerception\_40")), ~as.numeric(recode(., "Not at all risky" = 1, "Somewhat risky" = 2, "Moderately risky" = 3, "Very risky" = 4, "Extremely risky" = 5))) %>%  
 mutate\_at(vars(locfunc(experiment\_1\_Dataset, "riskBenefit\_1"):locfunc(experiment\_1\_Dataset, "riskBenefit\_40")), ~as.numeric(recode(., "No benefits at all" = 1, "Few benefits" = 2, "Moderate benefits" = 3, "Many benefits" = 4, "Great benefits" = 5))) %>%  
 mutate\_at(vars(locfunc(experiment\_1\_Dataset, "DoPL\_1"):locfunc(experiment\_1\_Dataset, "DoPL\_5")), ~as.numeric(recode(., "Strongly disagree" = 1, "Disagree" = 2, "Somewhat disagree" = 3, "Somewhat agree" = 4, "Agree" = 5, "Strongly agree" = 6))) %>%  
 mutate\_at(vars(locfunc(experiment\_1\_Dataset, "DoPL\_6"), locfunc(experiment\_1\_Dataset, "DoPL\_14")), ~as.numeric(recode(., "Strongly disagree" = 6, "Disagree" = 5, "Somewhat disagree" = 4, "Somewhat agree" = 3, "Agree" = 2, "Strongly agree" = 1))) %>%  
 mutate\_at(vars(locfunc(experiment\_1\_Dataset, "DoPL\_7"):locfunc(experiment\_1\_Dataset, "DoPL\_13")), ~as.numeric(recode(., "Strongly disagree" = 1, "Disagree" = 2, "Somewhat disagree" = 3, "Somewhat agree" = 4, "Agree" = 5, "Strongly agree" = 6))) %>%  
 mutate\_at(vars(locfunc(experiment\_1\_Dataset, "DoPL\_15"):locfunc(experiment\_1\_Dataset, "UMS\_10")), ~as.numeric(recode(., "Strongly disagree" = 1, "Disagree" = 2, "Somewhat disagree" = 3, "Somewhat agree" = 4, "Agree" = 5, "Strongly agree" = 6))) %>%  
 mutate\_at(vars(locfunc(experiment\_1\_Dataset, "DoPL\_17"):locfunc(experiment\_1\_Dataset, "DoPL\_18")), ~as.numeric(recode(., "Not Important To Me" = 1, "Of Little Importance To me" = 2, "Of Some Importance To Me" = 3, "Important To Me" = 4, "Very Important To me" = 5, "Extremely Important To Me" = 6))) %>%  
 mutate\_at(vars(locfunc(experiment\_1\_Dataset, "UMS\_11"):locfunc(experiment\_1\_Dataset, "UMS\_13")), ~as.numeric(recode(., "Not Important To Me" = 1, "Of Little Importance To me" = 2, "Of Some Importance To Me" = 3, "Important To Me" = 4, "Very Important To me" = 5, "Extremely Important To Me" = 6)))

experiment\_1\_Dataset <- experiment\_1\_Dataset[,-locfunc(experiment\_1\_Dataset, "StartDate"):-locfunc(experiment\_1\_Dataset, "Q52")]  
experiment\_1\_Dataset <- experiment\_1\_Dataset[,-c(locfunc(experiment\_1\_Dataset, "PROLIFIC\_PID"), locfunc(experiment\_1\_Dataset, "Q76"), locfunc(experiment\_1\_Dataset, "Q75"), locfunc(experiment\_1\_Dataset, "UMS\_10"))]

# DOPL  
DoPLQuestions <- c('DoPL\_1', 'DoPL\_6', 'DoPL\_11', 'DoPL\_13', 'DoPL\_14', 'DoPL\_16', 'DoPL\_5', 'DoPL\_7', 'DoPL\_8', 'DoPL\_12', 'DoPL\_17', 'DoPL\_18', 'DoPL\_2', 'DoPL\_3', 'DoPL\_4', 'DoPL\_9', 'DoPL\_10', 'DoPL\_15')  
  
dominanceQuestions <- c('DoPL\_2','DoPL\_3','DoPL\_4','DoPL\_9','DoPL\_10','DoPL\_15')  
prestigeQuestions <- c('DoPL\_5','DoPL\_7','DoPL\_8','DoPL\_12','DoPL\_17','DoPL\_18')  
leadershipQuestions <- c('DoPL\_1','DoPL\_6','DoPL\_11','DoPL\_13','DoPL\_14','DoPL\_16')  
  
  
# UMS  
UMSQuestions <- c('UMS\_1', 'UMS\_2', 'UMS\_3', 'UMS\_4','UMS\_5','UMS\_6','UMS\_7','UMS\_8','UMS\_9','UMS\_11', 'UMS\_12', 'UMS\_13')  
UMSIntimacyQuestions <- c('UMS\_11', 'UMS\_12', 'UMS\_13')  
UMSAffiliationQuestions <- c('UMS\_1', 'UMS\_2', 'UMS\_3', 'UMS\_4','UMS\_5','UMS\_6','UMS\_7','UMS\_8','UMS\_9')  
  
  
# DOSPERT  
riskQuestions <- c('risk\_1', 'risk\_2', 'risk\_3', 'risk\_4', 'risk\_5', 'risk\_6', 'risk\_7', 'risk\_8', 'risk\_9', 'risk\_10', 'risk\_11', 'risk\_12', 'risk\_13', 'risk\_14', 'risk\_15', 'risk\_16', 'risk\_17', 'risk\_18', 'risk\_19', 'risk\_20', 'risk\_21', 'risk\_22', 'risk\_23', 'risk\_24', 'risk\_25', 'risk\_26', 'risk\_27', 'risk\_28', 'risk\_29', 'risk\_30', 'risk\_31', 'risk\_32', 'risk\_33', 'risk\_34', 'risk\_35', 'risk\_36', 'risk\_37', 'risk\_38', 'risk\_39', 'risk\_40')  
  
ethicalQuestionsRisk <- c("risk\_5", "risk\_9", "risk\_12", "risk\_13", "risk\_14", "risk\_20", "risk\_25", "risk\_28")  
financialQuestionsRisk <- c("risk\_3", "risk\_7", "risk\_11", "risk\_18", "risk\_22", "risk\_24", "risk\_30", "risk\_33")  
healthAndSafetyQuestionsRisk <- c("risk\_4", "risk\_8", "risk\_27", "risk\_29", "risk\_32", "risk\_36", "risk\_39", "risk\_40")  
recreationalQuestionsRisk <- c("risk\_2", "risk\_6", "risk\_15", "risk\_17", "risk\_21", "risk\_31", "risk\_37", "risk\_38")  
socialQuestionsRisk <- c("risk\_1", "risk\_10", "risk\_16", "risk\_19", "risk\_23", "risk\_26", "risk\_34", "risk\_35")  
  
riskPerceptionQuestions <- c('riskPerception\_1', 'riskPerception\_2', 'riskPerception\_3', 'riskPerception\_4', 'riskPerception\_5', 'riskPerception\_6', 'riskPerception\_7', 'riskPerception\_8', 'riskPerception\_9', 'riskPerception\_10', 'riskPerception\_11', 'riskPerception\_12', 'riskPerception\_13', 'riskPerception\_14', 'riskPerception\_15', 'riskPerception\_16', 'riskPerception\_17', 'riskPerception\_18', 'riskPerception\_19', 'riskPerception\_20', 'riskPerception\_21', 'riskPerception\_22', 'riskPerception\_23', 'riskPerception\_24', 'riskPerception\_25', 'riskPerception\_26', 'riskPerception\_27', 'riskPerception\_28', 'riskPerception\_29', 'riskPerception\_30', 'riskPerception\_31', 'riskPerception\_32', 'riskPerception\_33', 'riskPerception\_34', 'riskPerception\_35', 'riskPerception\_36', 'riskPerception\_37', 'riskPerception\_38', 'riskPerception\_39', 'riskPerception\_40')  
  
ethicalQuestionsPerception <- c("riskPerception\_5", "riskPerception\_9", "riskPerception\_12", "riskPerception\_13", "riskPerception\_14", "riskPerception\_20", "riskPerception\_25", "riskPerception\_28")  
financialQuestionsPerception <- c("riskPerception\_3", "riskPerception\_7", "riskPerception\_11", "riskPerception\_18", "riskPerception\_22", "riskPerception\_24", "riskPerception\_30", "riskPerception\_33")  
healthAndSafetyQuestionsPerception <- c("riskPerception\_4", "riskPerception\_8", "riskPerception\_27", "riskPerception\_29", "riskPerception\_32", "riskPerception\_36", "riskPerception\_39", "riskPerception\_40")  
recreationalQuestionsPerception <- c("riskPerception\_2", "riskPerception\_6", "riskPerception\_15", "riskPerception\_17", "riskPerception\_21", "riskPerception\_31", "riskPerception\_37", "riskPerception\_38")  
socialQuestionsPerception <- c("riskPerception\_1", "riskPerception\_10", "riskPerception\_16", "riskPerception\_19", "riskPerception\_23", "riskPerception\_26", "riskPerception\_34", "riskPerception\_35")  
  
riskBenefitQuestions <- c('riskBenefit\_1', 'riskBenefit\_2', 'riskBenefit\_3', 'riskBenefit\_4', 'riskBenefit\_5', 'riskBenefit\_6', 'riskBenefit\_7', 'riskBenefit\_8', 'riskBenefit\_9', 'riskBenefit\_10', 'riskBenefit\_11', 'riskBenefit\_12', 'riskBenefit\_13', 'riskBenefit\_14', 'riskBenefit\_15', 'riskBenefit\_16', 'riskBenefit\_17', 'riskBenefit\_18', 'riskBenefit\_19', 'riskBenefit\_20', 'riskBenefit\_21', 'riskBenefit\_22', 'riskBenefit\_23', 'riskBenefit\_24', 'riskBenefit\_25', 'riskBenefit\_26', 'riskBenefit\_27', 'riskBenefit\_28', 'riskBenefit\_29', 'riskBenefit\_30', 'riskBenefit\_31', 'riskBenefit\_32', 'riskBenefit\_33', 'riskBenefit\_34', 'riskBenefit\_35', 'riskBenefit\_36', 'riskBenefit\_37', 'riskBenefit\_38', 'riskBenefit\_39', 'riskBenefit\_40')  
ethicalQuestionsBenefit <- c("riskBenefit\_5", "riskBenefit\_9", "riskBenefit\_12", "riskBenefit\_13", "riskBenefit\_14", "riskBenefit\_20", "riskBenefit\_25", "riskBenefit\_28")  
financialQuestionsBenefit <- c("riskBenefit\_3", "riskBenefit\_7", "riskBenefit\_11", "riskBenefit\_18", "riskBenefit\_22", "riskBenefit\_24", "riskBenefit\_30", "riskBenefit\_33")  
healthAndSafetyQuestionsBenefit <- c("riskBenefit\_4", "riskBenefit\_8", "riskBenefit\_27", "riskBenefit\_29", "riskBenefit\_32", "riskBenefit\_36", "riskBenefit\_39", "riskBenefit\_40")  
recreationalQuestionsBenefit <- c("riskBenefit\_2", "riskBenefit\_6", "riskBenefit\_15", "riskBenefit\_17", "riskBenefit\_21", "riskBenefit\_31", "riskBenefit\_37", "riskBenefit\_38")  
socialQuestionsBenefit <- c("riskBenefit\_1", "riskBenefit\_10", "riskBenefit\_16", "riskBenefit\_19", "riskBenefit\_23", "riskBenefit\_26", "riskBenefit\_34", "riskBenefit\_35")

# DOPL  
experiment\_1\_Dataset$DoPLSum <- rowSums(experiment\_1\_Dataset[, DoPLQuestions])  
experiment\_1\_Dataset$dominanceSum <-  
 rowSums(experiment\_1\_Dataset[, dominanceQuestions])  
experiment\_1\_Dataset$prestigeSum <-  
 rowSums(experiment\_1\_Dataset[, prestigeQuestions])  
experiment\_1\_Dataset$leadershipSum <-  
 rowSums(experiment\_1\_Dataset[, leadershipQuestions])  
  
# UMS  
experiment\_1\_Dataset$UMSSum <- rowSums(experiment\_1\_Dataset[, UMSQuestions])  
experiment\_1\_Dataset$UMSIntimacySum <- rowSums(experiment\_1\_Dataset[, UMSIntimacyQuestions])  
experiment\_1\_Dataset$UMSAffiliationSum <- rowSums(experiment\_1\_Dataset[, UMSAffiliationQuestions])  
  
# DOSPERT  
experiment\_1\_Dataset$riskSum <- rowSums(experiment\_1\_Dataset[, riskQuestions])  
experiment\_1\_Dataset$riskPerceptionSum <- rowSums(experiment\_1\_Dataset[, riskPerceptionQuestions])  
experiment\_1\_Dataset$riskBenefitSum <- rowSums(experiment\_1\_Dataset[, riskBenefitQuestions])  
  
experiment\_1\_Dataset$ethicalQuestionsRiskSum <- rowSums(experiment\_1\_Dataset[, ethicalQuestionsRisk])  
experiment\_1\_Dataset$financialQuestionsRiskSum <- rowSums(experiment\_1\_Dataset[, financialQuestionsRisk])  
experiment\_1\_Dataset$healthAndSafetyQuestionsRiskSum <- rowSums(experiment\_1\_Dataset[, healthAndSafetyQuestionsRisk])  
experiment\_1\_Dataset$recreationalQuestionsRiskSum <- rowSums(experiment\_1\_Dataset[, recreationalQuestionsRisk])  
experiment\_1\_Dataset$socialQuestionsRiskSum <- rowSums(experiment\_1\_Dataset[, socialQuestionsBenefit])  
  
experiment\_1\_Dataset$ethicalQuestionsBenefitSum <- rowSums(experiment\_1\_Dataset[, ethicalQuestionsBenefit])  
experiment\_1\_Dataset$financialQuestionsBenefitSum <- rowSums(experiment\_1\_Dataset[, financialQuestionsBenefit])  
experiment\_1\_Dataset$healthAndSafetyQuestionsBenefitSum <- rowSums(experiment\_1\_Dataset[, healthAndSafetyQuestionsBenefit])  
experiment\_1\_Dataset$recreationalQuestionsBenefitSum <- rowSums(experiment\_1\_Dataset[, recreationalQuestionsBenefit])  
experiment\_1\_Dataset$socialQuestionsBenefitSum <- rowSums(experiment\_1\_Dataset[, socialQuestionsBenefit])  
  
experiment\_1\_Dataset$ethicalQuestionsPerceptionSum <- rowSums(experiment\_1\_Dataset[, ethicalQuestionsPerception])  
experiment\_1\_Dataset$financialQuestionsPerceptionSum <- rowSums(experiment\_1\_Dataset[, financialQuestionsPerception])  
experiment\_1\_Dataset$healthAndSafetyQuestionsPerceptionSum <- rowSums(experiment\_1\_Dataset[, healthAndSafetyQuestionsPerception])  
experiment\_1\_Dataset$recreationalQuestionsPerceptionSum <- rowSums(experiment\_1\_Dataset[, recreationalQuestionsPerception])  
experiment\_1\_Dataset$socialQuestionsPerceptionSum <- rowSums(experiment\_1\_Dataset[, socialQuestionsPerception])

datatable(experiment\_1\_Dataset)

