

PISA2012 wstępny szkic analizy

```
## Warning: package 'dplyr' was built under R version 3.4.2
##
## Attaching package: 'dplyr'
## The following objects are masked from 'package:stats':
##
##   filter, lag
## The following objects are masked from 'package:base':
##
##   intersect, setdiff, setequal, union
## Warning: package 'data.table' was built under R version 3.4.2
##
## Attaching package: 'data.table'
## The following objects are masked from 'package:dplyr':
##
##   between, first, last
Pl.pisa %>%
  select(ST96Q01:ST96Q05) -> pytania

odpowiedzi <- c("definitely do this", "probably do this", "probably not do this", "definitely not do this")
podpunkty <- c("I press every button possible to find out what is wrong.",
               "I think about what might have caused the problem and what I can do to solve it.",
               "I read the manual.",
               "I ask a friend for help.")

tabelka.sumujaca <- matrix(rep(1:16), nrow=4, ncol = 4)

#pętla zliczająca sumy
for (i in 1:4){
  for (j in 1:4){
    tabelka.sumujaca[i,j] = sum(pytnia[,j] == odpowiedzi[i], na.rm = TRUE)
  }
}

#wyrażenie w procentach
tabelka.sumujaca <- prop.table(tabelka.sumujaca, margin = 2)

tabelka.sumujaca <- as.data.frame(tabelka.sumujaca)

rownames(tabelka.sumujaca) = odpowiedzi
colnames(tabelka.sumujaca)= podpunkty

#wyświetlenie tabeli
kable(tabelka.sumujaca)
```

I press every button possible to find out what is wrong.	I think about what might have caused the
definitely do this	0.1755075

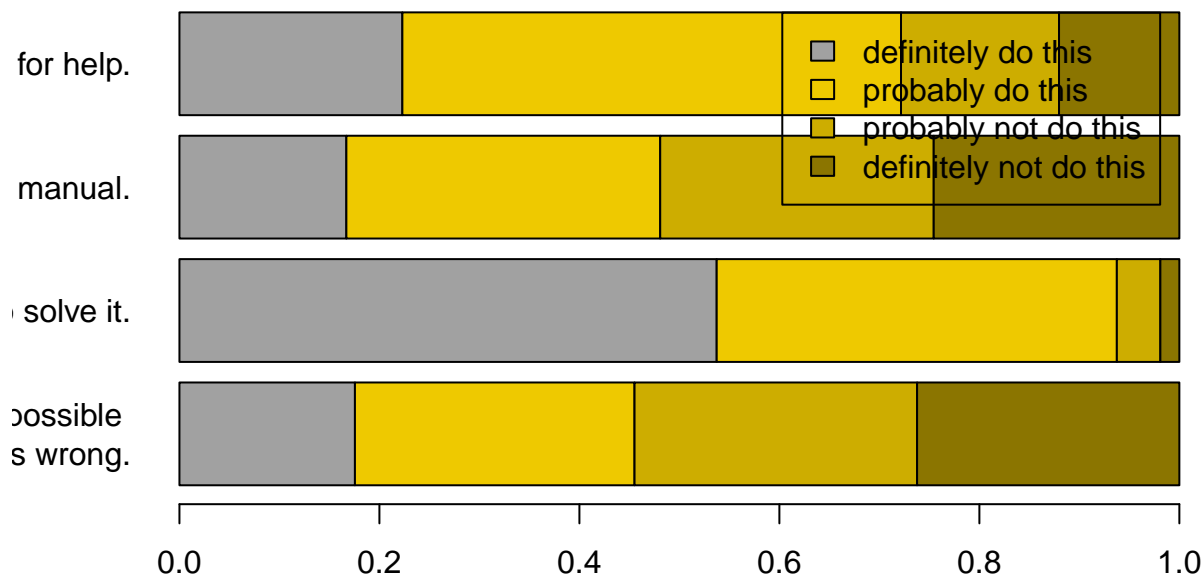
	I press every button possible to find out what is wrong.	I think about what might have caused the
probably do this	0.2796333	
probably not do this	0.2825802	
definitely not do this	0.2622790	

```
library(graphics)

kolory =c("gray63", "gold2", "gold3", "gold4")

par(xpd = TRUE)
tabelka.sumujaca <- as.matrix(tabelka.sumujaca)
barplot(tabelka.sumujaca, main = "Question about the mobile phone",
        names.arg = c("I press every button possible \n to find out what is wrong.",
                      "I think about what might have caused the problem and what I can do to so",
                      "I read the manual.",
                      "I ask a friend for help."),
        col = kolory,
        horiz = TRUE,
        las = 1,
        legend.text = TRUE,
        xpd = TRUE)
```

Question about the mobile phone



```
#args.legend = list("topleft", odpowiedzi, fill = kolory)
#nie działa legenda i te napisy z boku
```

Tutaj wychodzi fajna sprawa, że ci, którzy by przeczytali instrukcję najwięcej czasu poświęcają na prace domowe. Co by miało sens, bo to pewnie ci bardziej cierpliwi etc.

```
srednia <- vector(length = 4)
srednia <- as.data.frame(srednia)
odpowiedzi <- c("definitely do this", "probably do this", "probably not do this", "definitely not do this")

for (i in 1:4){
  for (j in c("ST96Q01", "ST96Q02", "ST96Q03", "ST96Q05")){
    Pl.pisa %>%
      filter(Pl.pisa[[j]] == odpowiedzi[i]) %>%
      na.omit %>%
      summarise(mean(ST57Q01)) -> tmp
    srednia[i, j] = tmp[1,]
  }
}

## Warning: package 'bindrcpp' was built under R version 3.4.2

srednia <- select(srednia, -srednia)
colnames(srednia) = podpunkty
rownames(srednia) = odpowiedzi
kable(srednia, caption = "Mean number of hours spent on homework (per week)")
```

Table 2: Mean number of hours spent on homework

	I press every button possible to find out what is wrong.	I think about what might have caused the
definitely do this	6.230769	
probably do this	6.694236	
probably not do this	6.850467	
definitely not do this	6.491687	