

Title

Course

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DD MM YYYY

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Data

Dataformat is of tab separated values regarding noise on campus. Some variables are shown in the printout below. The response is `spm3` and `spm4` which are “trivsel” and “effektivitet”, respectively. The response is evaluated for each building block. `## Load data`

```
# d = read.delim('C:/Users/kikka/OneDrive - NTNU/Fysmat/10 Semester
# V2023/EiT/TTT4850/data/data-315297-2023-02-09-1558-utf.txt', header=T) d =
# read.delim('./data/data-315297-2023-02-15-1118-utf.txt', header=T)
# head(d[1:5])
```

Reformat dumb shit

```
d = read.delim("./data/data-315297-2023-02-22-0953-utf.txt", header = T)

# Time
formatTime <- function(t) {
  tSplit = strsplit(t, " ")[[1]]
  s = 0
  for (i in seq(1, length(tSplit), 2)) {
    s = s + switch(tSplit[i + 1], dager = strtoi(tSplit[i]) * 24 * 3600, dag = strtoi(tSplit[i]) *
    24 * 3600, timer = strtoi(tSplit[i]) * 3600, time = strtoi(tSplit[i]) *
    3600, minutt = strtoi(tSplit[i]) * 60, minutter = strtoi(tSplit[i]) *
    60, sekunder = strtoi(tSplit[i]), sekund = strtoi(tSplit[i]), 0)
  }
  return(s)
}

ftimes = unlist(lapply(d$Svartid, formatTime))
cbind(d$Svartid, ftimes)
```

		ftimes
##		
##	[1,] "2 minutter 32 sekunder"	"152"
##	[2,] "1 minutt 58 sekunder"	"118"
##	[3,] "2 minutter 32 sekunder"	"152"
##	[4,] "4 minutter 28 sekunder"	"268"
##	[5,] "2 minutter 45 sekunder"	"165"
##	[6,] "2 minutter 41 sekunder"	"161"
##	[7,] "11 minutter 46 sekunder"	"706"
##	[8,] "1 minutt 5 sekunder"	"65"
##	[9,] "3 minutter 50 sekunder"	"230"
##	[10,] "3 minutter 4 sekunder"	"184"
##	[11,] "1 minutt"	"60"
##	[12,] "1 minutt 21 sekunder"	"81"
##	[13,] "1 minutt 5 sekunder"	"65"
##	[14,] "2 minutter 17 sekunder"	"137"
##	[15,] "2 minutter"	"120"
##	[16,] "1 minutt 42 sekunder"	"102"
##	[17,] "1 minutt 17 sekunder"	"77"
##	[18,] "1 minutt 46 sekunder"	"106"
##	[19,] "3 minutter 57 sekunder"	"237"
##	[20,] "2 minutter 7 sekunder"	"127"
##	[21,] "57 sekunder"	"57"
##	[22,] "2 minutter 17 sekunder"	"137"
##	[23,] "1 minutt 27 sekunder"	"87"
##	[24,] "6 minutter 53 sekunder"	"413"
##	[25,] "28 minutter 51 sekunder"	"1731"
##	[26,] "1 minutt 50 sekunder"	"110"
##	[27,] "2 minutter 41 sekunder"	"161"
##	[28,] "1 minutt 57 sekunder"	"117"
##	[29,] "1 minutt 54 sekunder"	"114"
##	[30,] "2 minutter 30 sekunder"	"150"
##	[31,] "1 minutt 46 sekunder"	"106"
##	[32,] "2 minutter 38 sekunder"	"158"
##	[33,] "59 sekunder"	"59"
##	[34,] "2 minutter 59 sekunder"	"179"
##	[35,] "1 minutt 28 sekunder"	"88"
##	[36,] "1 minutt 41 sekunder"	"101"
##	[37,] "1 minutt 58 sekunder"	"118"
##	[38,] "2 minutter 24 sekunder"	"144"
##	[39,] "2 minutter 25 sekunder"	"145"
##	[40,] "2 minutter 26 sekunder"	"146"
##	[41,] "2 minutter 19 sekunder"	"139"
##	[42,] "3 minutter 50 sekunder"	"230"
##	[43,] "2 minutter 31 sekunder"	"151"
##	[44,] "2 minutter 37 sekunder"	"157"
##	[45,] "2 minutter 49 sekunder"	"169"
##	[46,] "4 minutter 48 sekunder"	"288"
##	[47,] "3 minutter 38 sekunder"	"218"
##	[48,] "6 minutter 7 sekunder"	"367"
##	[49,] "1 minutt 45 sekunder"	"105"
##	[50,] "1 minutt 36 sekunder"	"96"
##	[51,] "1 minutt 48 sekunder"	"108"
##	[52,] "2 minutter 9 sekunder"	"129"
##	[53,] "2 minutter 17 sekunder"	"137"

##	[54,]	"3 minutter 1 sekund"	"181"
##	[55,]	"38 minutter 42 sekunder"	"2322"
##	[56,]	"1 minutt 40 sekunder"	"100"
##	[57,]	"2 minutter 12 sekunder"	"132"
##	[58,]	"1 minutt 36 sekunder"	"96"
##	[59,]	"2 minutter 25 sekunder"	"145"
##	[60,]	"1 minutt 27 sekunder"	"87"
##	[61,]	"1 minutt 45 sekunder"	"105"
##	[62,]	"2 minutter 15 sekunder"	"135"
##	[63,]	"1 minutt 11 sekunder"	"71"
##	[64,]	"1 minutt 25 sekunder"	"85"
##	[65,]	"2 minutter 47 sekunder"	"167"
##	[66,]	"1 minutt 26 sekunder"	"86"
##	[67,]	"2 minutter 24 sekunder"	"144"
##	[68,]	"1 minutt 9 sekunder"	"69"
##	[69,]	"2 minutter 13 sekunder"	"133"
##	[70,]	"1 minutt 31 sekunder"	"91"
##	[71,]	"2 minutter 5 sekunder"	"125"
##	[72,]	"2 minutter 13 sekunder"	"133"
##	[73,]	"5 minutter 50 sekunder"	"350"
##	[74,]	"1 minutt 42 sekunder"	"102"
##	[75,]	"2 minutter 9 sekunder"	"129"
##	[76,]	"1 minutt 32 sekunder"	"92"
##	[77,]	"54 sekunder"	"54"
##	[78,]	"1 minutt 7 sekunder"	"67"
##	[79,]	"3 minutter 22 sekunder"	"202"
##	[80,]	"1 minutt 24 sekunder"	"84"
##	[81,]	"12 minutter 27 sekunder"	"747"
##	[82,]	"5 minutter 40 sekunder"	"340"
##	[83,]	"1 minutt 41 sekunder"	"101"
##	[84,]	"2 minutter 1 sekund"	"121"
##	[85,]	"1 minutt 40 sekunder"	"100"
##	[86,]	"4 minutter 50 sekunder"	"290"
##	[87,]	"55 sekunder"	"55"
##	[88,]	"1 minutt 35 sekunder"	"95"
##	[89,]	"1 minutt 46 sekunder"	"106"
##	[90,]	"3 minutter 47 sekunder"	"227"
##	[91,]	"1 minutt 22 sekunder"	"82"
##	[92,]	"5 minutter 24 sekunder"	"324"
##	[93,]	"7 minutter 50 sekunder"	"470"
##	[94,]	"2 minutter 4 sekunder"	"124"
##	[95,]	"2 minutter 27 sekunder"	"147"
##	[96,]	"6 minutter 34 sekunder"	"394"
##	[97,]	"1 minutt 48 sekunder"	"108"
##	[98,]	"5 minutter 46 sekunder"	"346"
##	[99,]	"2 minutter"	"120"
##	[100,]	"1 minutt 45 sekunder"	"105"
##	[101,]	"2 minutter 9 sekunder"	"129"
##	[102,]	"3 minutter 51 sekunder"	"231"
##	[103,]	"1 time 16 minutter 9 sekunder"	"4569"
##	[104,]	"1 minutt 59 sekunder"	"119"
##	[105,]	"1 minutt 12 sekunder"	"72"
##	[106,]	"3 minutter 19 sekunder"	"199"
##	[107,]	"5 minutter 26 sekunder"	"326"

```
## [108,] "3 minutter 14 sekunder"      "194"
## [109,] "1 minutt 6 sekunder"         "66"
## [110,] "54 sekunder"                 "54"
## [111,] "4 minutter 1 sekund"         "241"
## [112,] "3 minutter 19 sekunder"      "199"
## [113,] "58 sekunder"                 "58"
## [114,] "4 minutter 18 sekunder"      "258"
## [115,] "28 minutter 53 sekunder"     "1733"
## [116,] "1 minutt 33 sekunder"        "93"
## [117,] "3 minutter 33 sekunder"      "213"
## [118,] "1 minutt 25 sekunder"        "85"
## [119,] "37 sekunder"                 "37"
## [120,] "2 minutter"                  "120"
## [121,] "6 minutter 32 sekunder"      "392"
## [122,] "3 minutter"                  "180"
## [123,] "2 minutter 28 sekunder"      "148"
## [124,] "59 sekunder"                 "59"
## [125,] "2 minutter 27 sekunder"      "147"
## [126,] "1 minutt 37 sekunder"        "97"
## [127,] "5 minutter 44 sekunder"      "344"
## [128,] "37 minutter 8 sekunder"      "2228"
## [129,] "1 minutt 55 sekunder"        "115"
## [130,] "1 minutt 18 sekunder"        "78"
## [131,] "1 minutt 10 sekunder"        "70"
## [132,] "2 minutter 3 sekunder"       "123"
## [133,] "1 minutt 57 sekunder"        "117"
## [134,] "3 minutter 26 sekunder"      "206"
```

```
# d$Svartid=ftimes
```

```
# Free text answers
```

```
write.csv(d[d[, "spmTekst"] != "", c("NR", "spmTekst")], "./data/freeTxt.csv", row.names = FALSE)
```

Make response

As mentioned, the responses are spm3 and spm4.

```
# head(d) variates = names(d) yt = d$spmTriv ye = d$spmEff
locs = unique(d$spmHvor)
locs
```

```
## [1] "elD"      "elB"      "kjel"     "elE"      "real"     "sent2"    "verk"     "bygg"
## [9] "sent1"    "hand"     "tapir"    "berg"     "gamEl"    "hoved"    "varme"    "gruve"
## [17] "gamFys"   "itSyd"    "kjemi1"   "kjemi2"   "elA"      "kjemi5"
```

```
N = length(d[, 1])
ancPercentage = length(d$spmTiltak_1[d$spmTiltak_1 == "mNc"])/N
ancPercentage
```

```
## [1] 0.7686567
```

```

yBuilding = data.frame(matrix(ncol = length(locs), nrow = 2, dimnames = list(c("trivsel",
"effektivitet"), locs)))
for (loc in locs) {
  # browser()
  yBuilding[loc] = c(mean(d$spmTriv[d$spmHvor == loc]), mean(d$spmEff[d$spmHvor ==
loc]))
}
yBuilding[1:5]

```

```

##           elD      elB      kjel      elE      real
## trivsel      3.75 3.666667 3.666667 4.315789 2.655172
## effektivitet 3.50 3.666667 3.000000 3.894737 2.724138

```

“

```

# æ is \u00E6
# ø is \u00F8
# å is \u00E5
barplot(
  ((as.matrix(yBuilding))),
  col = c("lightblue", 'darkblue'),
  border = "white",
  # main="Trivsel",
  ylab="P\u00E5virkning",
  beside = T,
  las=2,
  ylim = c(0,5)
  # space=0.1
)
legend(
  "top",
  legend = c("Trivsel", "Effektivitet"),
  fill = c("lightblue", 'darkblue'), bty = 'n')

```

