RWorksheet_Quillo#3a

Carl

2023-10-04

```
#1a

dfRespondents <- c(1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20)
dfSex <- c(2,2,1,2,2,2,2,2,2,2,1,2,2,2,2,2,2,2,1,2)
dfFathersOcc <- c(1,3,3,3,1,2,3,1,1,1,3,2,1,3,3,1,3,1,2,1)
dfPersonatHome <- c(5,7,3,8,5,9,6,7,8,4,7,5,4,7,8,8,3,11,7,6)
dfSiblingsatSch <- c(6,4,4,1,2,1,5,3,1,2,3,2,5,5,2,1,2,5,3,2)
dfTypesofHouses <- c(1,2,3,1,1,3,3,1,2,3,2,3,2,2,3,3,3,3,3,2)

dfHouseholdData <- data.frame("Respondents" = dfRespondents,
                              "Sex" = dfSex,
                              "Fathers Occupation" = dfFathersOcc,
                              "Persons at Home" = dfPersonatHome,
                              "Siblings at School" = dfSiblingsatSch,
                              "Types of Houses" = dfTypesofHouses)
dfHouseholdData
```

```
##    Respondents Sex Fathers.Occupation Persons.at.Home Siblings.at.School
## 1            1   2                  1              5                  6
## 2            2   2                  3              7                  4
## 3            3   1                  3              3                  4
## 4            4   2                  3              8                  1
## 5            5   2                  1              5                  2
## 6            6   2                  2              9                  1
## 7            7   2                  3              6                  5
## 8            8   2                  1              7                  3
## 9            9   2                  1              8                  1
## 10          10   2                  1              4                  2
## 11          11   1                  3              7                  3
## 12          12   2                  2              5                  2
## 13          13   2                  1              4                  5
## 14          14   2                  3              7                  5
## 15          15   2                  3              8                  2
## 16          16   2                  1              8                  1
## 17          17   2                  3              3                  2
## 18          18   2                  1             11                  5
## 19          19   1                  2              7                  3
## 20          20   2                  1              6                  2
##    Types.of.Houses
## 1                1
## 2                2
## 3                3
## 4                1
```

```
## 5                1
## 6                3
## 7                3
## 8                1
## 9                2
## 10               3
## 11               2
## 12               3
## 13               2
## 14               2
## 15               3
## 16               3
## 17               3
## 18               3
## 19               3
## 20               2
```

```
#1b
#the data is about a Household occupants

summary(dfHouseholdData)
```

```
##   Respondents          Sex       Fathers.Occupation Persons.at.Home
##  Min.   : 1.00   Min.   :1.00   Min.   :1.00       Min.   : 3.0
##  1st Qu.: 5.75   1st Qu.:2.00   1st Qu.:1.00       1st Qu.: 5.0
##  Median :10.50   Median :2.00   Median :2.00       Median : 7.0
##  Mean   :10.50   Mean   :1.85   Mean   :1.95       Mean   : 6.4
##  3rd Qu.:15.25   3rd Qu.:2.00   3rd Qu.:3.00       3rd Qu.: 8.0
##  Max.   :20.00   Max.   :2.00   Max.   :3.00       Max.   :11.0
##  Siblings.at.School Types.of.Houses
##  Min.   :1.00       Min.   :1.0
##  1st Qu.:2.00       1st Qu.:2.0
##  Median :2.50       Median :2.5
##  Mean   :2.95       Mean   :2.3
##  3rd Qu.:4.25       3rd Qu.:3.0
##  Max.   :6.00       Max.   :3.0
```

```
#c

#no, its 2.95

#d

oneand2 <- dfHouseholdData[1:2,]
oneand2
```

```
##   Respondents Sex Fathers.Occupation Persons.at.Home Siblings.at.School
## 1           1   2                  1               5                  6
## 2           2   2                  3               7                  4
##   Types.of.Houses
## 1               1
## 2               2
```

```
#e
third5and24 <- dfHouseholdData[c(3,5),c(2,4)]
third5and24
```

```
##   Sex Persons.at.Home
## 3   1               3
## 5   2               5
```

```
#f
types_houses <- dfHouseholdData[,6]
types_houses
```

```
##  [1] 1 2 3 1 1 3 3 1 2 3 2 3 2 2 3 3 3 3 3 2
```

```
#g

dfMaleFatherOcc <- dfHouseholdData[dfHouseholdData$Sex == 1 & dfHouseholdData$Fathers.Occupation == 1, c
dfMaleFatherOcc
```

```
## [1] Sex                Fathers.Occupation
## <0 rows> (or 0-length row.names)
```

```
#h

dfFemaleSiblings <- dfHouseholdData[dfHouseholdData$Sex == 2 & dfHouseholdData$Siblings.at.School >= 5,
dfFemaleSiblings
```

```
##    Sex Siblings.at.School
## 1    2                  6
## 7    2                  5
## 13   2                  5
## 14   2                  5
## 18   2                  5
```

```
#2


dfofNum2 = data.frame(Ints=integer(),
                      Doubles=double(),
                      Characters=character(),
                      Logicals=logical(),
                      Factors=factor(),
                      stringsAsFactors=FALSE)

print("Structure of the empty dataframe:")
```

```
## [1] "Structure of the empty dataframe:"
```

```
print(str(dfofNum2))
```

```
## 'data.frame':    0 obs. of  5 variables:
##  $ Ints      : int
##  $ Doubles   : num
##  $ Characters: chr
##  $ Logicals  : logi
##  $ Factors   : Factor w/ 0 levels:
## NULL
```

```
#it prints the structure of the dataframe


#3
```

```r
df2Respondents <- c(1,2,3,4,5,6,7,8,9,10)
df2Sex <- c("Male", "Female", "Female", "Male", "Male", "Female", "Female", "Male","Female", "Male")
df2FathersOcc <- c(1,2,3,3,1,2,2,3,1,3)
df2PersonatHome<- c(5,7,3,8,6,4,4,2,11,6)
df2SiblingsatSch <- c(2,3,0,5,2,3,1,2,6,2)
df2TypeofHouses <- c("Wood", "Congrete", "Congrete", "Wood", "Semi-congrete", "Semi-congrete", "Wood",

df2HouseholdData <- data.frame("Respondetns" = df2Respondents,
                               "Sex" = df2Sex,
                               "Fathers Occupation" = df2FathersOcc,
                               "Person at Home" = df2PersonatHome,
                               "Siblings at Schoo" = df2SiblingsatSch,
                               "Type of Houses" = df2TypeofHouses)
df2HouseholdData
```

```
##    Respondetns    Sex Fathers.Occupation Person.at.Home Siblings.at.Schoo
## 1            1   Male                 1             5                 2
## 2            2 Female                 2             7                 3
## 3            3 Female                 3             3                 0
## 4            4   Male                 3             8                 5
## 5            5   Male                 1             6                 2
## 6            6 Female                 2             4                 3
## 7            7 Female                 2             4                 1
## 8            8   Male                 3             2                 2
## 9            9 Female                 1            11                 6
## 10          10   Male                 3             6                 2
##    Type.of.Houses
## 1            Wood
## 2        Congrete
## 3        Congrete
## 4            Wood
## 5   Semi-congrete
## 6   Semi-congrete
## 7            Wood
## 8   Semi-congrete
## 9   Semi-congrete
## 10       Congrete
```

```r
write.csv(df2HouseholdData, file = "HouseholdData.csv")


#3a

csvHouseholdData <- read.csv(file = "HouseholdData.csv")
csvHouseholdData
```

```
##     X Respondetns    Sex Fathers.Occupation Person.at.Home Siblings.at.Schoo
## 1   1           1   Male                 1             5                 2
## 2   2           2 Female                 2             7                 3
## 3   3           3 Female                 3             3                 0
## 4   4           4   Male                 3             8                 5
## 5   5           5   Male                 1             6                 2
## 6   6           6 Female                 2             4                 3
## 7   7           7 Female                 2             4                 1
## 8   8           8   Male                 3             2                 2
```

```
## 9   9           9 Female                  1             11                  6
## 10 10          10   Male                  3              6                  2
##    Type.of.Houses
## 1            Wood
## 2        Congrete
## 3        Congrete
## 4            Wood
## 5   Semi-congrete
## 6   Semi-congrete
## 7            Wood
## 8   Semi-congrete
## 9   Semi-congrete
## 10       Congrete
```

```
#3b


csvHouseholdDataSex <- as.integer(factor(csvHouseholdData$Sex, levels = c("Male", "Female")))
csvHouseholdDataSex
```

```
##  [1] 1 2 2 1 1 2 2 1 2 1
```

```
#3c


csvHouseholdDataTypeofHouses <- as.integer(factor(csvHouseholdData$Type.of.Houses, levels = c("Wood", "C

csvHouseholdDataTypeofHouses
```

```
##  [1] 1 2 2 1 3 3 1 3 3 2
```

```
#3d
#its already on int type
csvHouseholdData$Fathers.Occupation
```

```
##  [1] 1 2 3 3 1 2 2 3 1 3
```

```
csvHouseholdDataFathersOcc  <- factor(csvHouseholdData$Fathers.Occupation, levels = c(1,2,3), labels = c

csvHouseholdDataFathersOcc
```

```
##  [1] Farmer Driver Others Others Farmer Driver Driver Others Farmer Others
## Levels: Farmer Driver Others
```

```
#3e

csvHouseholdDataFemaleFatherOcc <- csvHouseholdData[csvHouseholdData$Sex == "Female" & csvHouseholdData$
csvHouseholdDataFemaleFatherOcc
```

```
##      Sex Fathers.Occupation
## 2 Female                  2
## 6 Female                  2
## 7 Female                  2
```

```
#3f

csvHouseholdDataSibmorethan5 <- csvHouseholdData[csvHouseholdData$Siblings.at.Schoo >= 5 , c(2,6)]
csvHouseholdDataSibmorethan5
```

```
##   Respondetns Siblings.at.Schoo
## 4           4                 5
## 9           9                 6
```

```
#4
#

mtxNNP <- cbind(
  c("2400+", "1500+", "1800+"),
  c("4250+", "2600+", "3200+"),
  c("3250+", "1900+", "2300+"),
  c("3300+", "2100+", "2600+"),
  c("2300+", "1400+", "1750+"),
  c("4100+", "2750+", "3300+")
)



dimnames(mtxNNP) <- list(c("Negative", "Neutral", "Positive"), c("July 14, 2020", "July 15, 2020","July


mtxNNP
```

```
##          July 14, 2020 July 15, 2020 July 17, 2020 July 18,2022 July 20, 2020
## Negative "2400+"       "4250+"       "3250+"       "3300+"      "2300+"
## Neutral  "1500+"       "2600+"       "1900+"       "2100+"      "1400+"
## Positive "1800+"       "3200+"       "2300+"       "2600+"      "1750+"
##          July 21, 2020
## Negative "4100+"
## Neutral  "2750+"
## Positive "3300+"
```

```
# In contrast with the other sentiments, there were more negative sentiments on July 14. This could rep


# All attitudes increased on July 15, with the negative sentiment reaching its maximum level. This may


# July 17 - the negative opinions persisted and were still relatively substantial in comparison to the


#July 18 - negative feelings persisted and were relatively strong compared to the neutral and    positi


# The lowest point for all attitudes occurred on July 20, however there were still more negative    fee

#July 21 - all reactions increased, with the negative mood reaching its highest level. This can also me


# We might conclude from this data that society's opinion is affected by outside factors and that it ch
```