RWorksheet_Echaveria#3b

2023-10-11

```r
#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(2,2,1,2,2,2,2,2,2,2,2,1,2,2,2,2,2,2,2,1,2)
dfFathersOccupation <- 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)
dfSiblingsAtSchool <- 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" = dfFathersOccupation,
                              "Persons at Home" = dfPersonAtHome,
                              "Siblings at School" = dfSiblingsAtSchool,
                              "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
```

```r
#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
```

```r
#c

#no, its 2.95

#d

first_second <- dfHouseholddata[1:2,]
first_second
```

```
##   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
```

```r
#e
third5and2nd4 <- dfHouseholddata[c(3,5),c(2,4)]
third5and2nd4
```

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

```
## 5   2                    5
```

```
#f
types_houses <- dfHouseholddata[,1]
types_houses
```

```
##  [1]  1  2  3  4  5  6  7  8  9 10 11 12 13 14 15 16 17 18 19 20
```

```
#g
```

```
dfMaleFatherOccupation <- dfHouseholddata[dfHouseholddata$Sex == 1 & dfHouseholddata$Fathers.Occupation
dfMaleFatherOccupation
```

```
## [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
```

```
df2Respondents <- c(1,2,3,4,5,6,7,8,9,10)
```

```r
df2Sex <- c("Male", "Female", "Female", "Male", "Male", "Female", "Female", "Male","Female", "Male")
df2FathersOccupation <- c(1,2,3,3,1,2,2,3,1,3)
df2PersonAtHome<- c(5,7,3,8,6,4,4,2,11,6)
df2SiblingsAtSchool <- 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" = df2FathersOccupation,
                               "Person at Home" = df2PersonAtHome,
                               "Siblings at Schoo" = df2SiblingsAtSchool,
                               "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")
```

```r
#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
```

```r
#3b
```

```r
csvHouseholddataSex <- as.integer(factor(csvHouseholddata$Sex, levels = c("Male", "Female")))
csvHouseholddataSex
```

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

```r
#3c
```

```r
csvHouseholddataTypeOfHouses <- as.integer(factor(csvHouseholddata$Type.of.Houses, levels = c("Wood", "(
csvHouseholddataTypeOfHouses
```

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

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

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

```r
csvHouseholddataFathersOccupation <- as.integer(factor(csvHouseholddata$FathersOccupation, levels = c("
csvHouseholddataFathersOccupation
```

```
## integer(0)
```

```r
#3e
```

```r
csvHouseholddataFemaleFatherOccupation <- csvHouseholddata[csvHouseholddata$Sex == "Female" & csvHouseh
csvHouseholddataFemaleFatherOccupation
```

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

```r
#3f
```

```r
csvHouseholddataSibmorethan5 <- csvHouseholddata[csvHouseholddata$Siblings.at.School>= 5 , c(2,6)]
csvHouseholddataSibmorethan5
```

```
## [1] Respondetns      Siblings.at.Schoo
## <0 rows> (or 0-length row.names)
```

```
#4
# On this day, July 14, the bulk of the other opinions are negative. This suggests that on that specifi

# Although all attitudes rose on this day, July 15, the amount of negativity is still the highest. This

#Positive and neutral attitudes are mostly unchanged on these days, although negative attitudes are sti

# Though there were still more unfavorable sensations among the others, all emotions peaked on July 20.
# On this day, July 21, all emotions are more intense, with the negative continuing to rule. This can i

#This data can help us come to the conclusion that public opinion is influenced by the outside world an
```