

# Yakup Tezcan

```
knitr::opts_chunk$set(echo = TRUE)
assn2 <- read.csv(file="/assignment.csv")
```

```
#Question1
```

```
#Part a.
```

```
#mean of age of participants
mean(assn2$age)
```

```
## [1] 22.97179
```

```
#median of age of participants
median(assn2$age)
```

```
## [1] 23
```

```
#IQR of age of participants
IQR(assn2$age)
```

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

```
#youngest and oldest participants
range(assn2$age)
```

```
## [1] 19 56
```

```
#variance of age of participants
var(assn2$age)
```

```
## [1] 6.089177
```

```
#standard deviation of age of participants
sd(assn2$age)
```

```
## [1] 2.467626
```

```
quantile(assn2$age)
```

```
##    0%   25%   50%   75%  100%
##   19   22   23   24   56
```

```
#female=1, male=2
table(assn2$sex)
```

```
##
##    1    2
## 290 100
```

```
#H= Humanities, LA= Law and Administration, MS= Medical Sciences,
#SS= Social Sciences, ST= Science and Technology
table(assn2$field)
```

```
##
##      H LA MS SS ST
##    7 48 84 90 66 95
```

```
#1,2,3,4 and 5 represent undergraduates while 6,7 and 9 represent Phds
table(assn2$year)
```

```
##
##    1    2    3    4    5    6    7    9
##   71   63  122   50   52    7    1    1
```

There were 390 participants in the questionnaire, and 290 of them were females while 100 of them were males. Most of the participants study their undergraduate degrees, and a few works towards their PhDs. Mean of participants' age was 22.9, and median was 23 while the youngest participant was 19, and the oldest was 56 years old. By looking at this summary, we immediately notice that majority of participants were in their early 20s, and study their bachelor's degrees in Social Sciences, Law and Administration, Medical Sciences, Humanities, Science and Technology.

#Part b.

As we already indicated, most of the participants study their bachelor's degrees (1,2,3,4 and 5) which can be a confounding for us. In general, cheating is thought as the main action for Academic Dishonesty. However, students who study their master's and PhDs can engage in academic misconduct as well. (Plagiarism) Besides, almost %75 participants are females. This number is huge for a gender, because gender can have significant effects on personality traits of students. Distribution of year of study can assist us in a great way, since it is almost equally divided. Moreover, almost all the participants study in common faculties and this can help us to lower the bias among students who are in different fields.

#Question 2

#Part a.

```
#Creates a new categorical variable psych_rank
psych_rank <- rep(0,length(assn2$participant))
#Creates the variable for very low psychopathy rank
psych_rank[assn2$TriPM_B <= 23 & assn2$TriPM_M<=15 & assn2$TriPM_D<=24] <-
  "Very Low"
#Creates the variable for high psychopathy rank
psych_rank[assn2$TriPM_B > 23 & assn2$TriPM_M>15 & assn2$TriPM_D>24] <- "High"
#Creates the variable for moderate psychopathy rank
psych_rank[assn2$TriPM_B > 23 & assn2$TriPM_M>15 & assn2$TriPM_D<=24] <-
  "Moderate"
psych_rank[assn2$TriPM_B > 23 & assn2$TriPM_M<=15 & assn2$TriPM_D>24] <-
  "Moderate"
psych_rank[assn2$TriPM_B <= 23 & assn2$TriPM_M>15 & assn2$TriPM_D>24] <-
  "Moderate"
#Creates the variable for low psychopathy rank
psych_rank[assn2$TriPM_B > 23 & assn2$TriPM_M<=15 & assn2$TriPM_D<=24] <- "Low"
psych_rank[assn2$TriPM_B <= 23 & assn2$TriPM_M>15 & assn2$TriPM_D<=24] <- "Low"
psych_rank[assn2$TriPM_B <= 23 & assn2$TriPM_M<=15 & assn2$TriPM_D>24] <- "Low"
#Adds the new variable to the dataset
assn2 <- data.frame(cbind(assn2,psych_rank))
#Reorders the psych_rank variable
assn2$psych_rank <- factor(assn2$psych_rank, levels=c("High", "Moderate",
  "Low", "Very Low"))

#Displays the number of psych_rank
table(assn2$psych_rank)
```

```
##
##      High Moderate      Low Very Low
##         5        31      196      158
```

#Part b.

```
assn2$psych_rank <- factor(assn2$psych_rank, levels=c("High", "Moderate", "Low",
  "Very Low"))

#Creates a boxplot with ADS score and psych_rank
boxplot(assn2$ADS~assn2$psych_rank, ylab="Academic Dishonesty Scale(ADS)"
  ,psych_rank.names=c("high", "moderate", "low", "very low"),
  xlab="Personality traits associated with psychopathy (psych_rank)",
  vertical=TRUE, ylim=c(0,65),pch=(0))
```

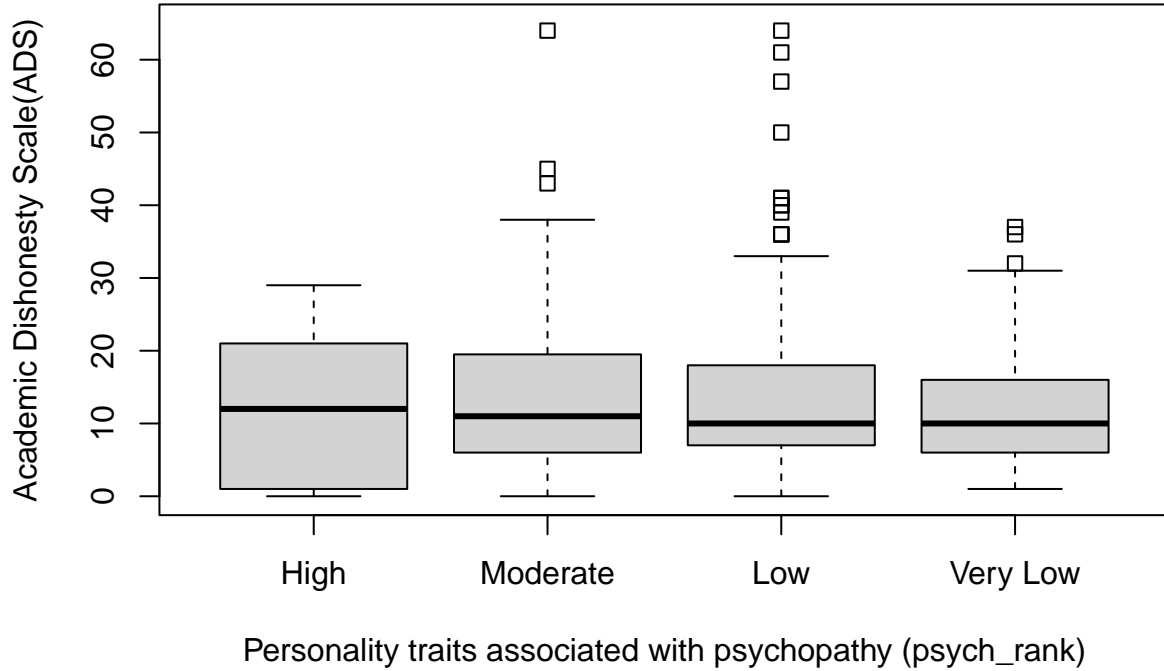


Figure 1. Distribution of psych\_rank variable comparing with the ADS, Academic Dishonesty Scale(out of 65). Psych\_rank is determined by using three types of Triarchic Psychopathy Measure questionnaires.(Meanness, Boldness, Disinhibition) From high to very low, the graph indicates the tendency towards psychopathy that leads to academic misconduct.

#Part c.

By analyzing the above graph, we can say that most of the participants have low or very low psychopathy rank. This can state that the number of students who are going to engage in academic misconduct will be very low, if we conclude that there is a relation between psychopathic personality traits and academic dishonesty. However, we can observe that ADS (Academic Dishonesty Scale) scores of some participants with low or moderate psychopathy rank are very high whereas participants with high psychopathy rank have less than 20 ADS score. By looking at the numbers of moderate and low rank, some of these scores can be considered as outliers. In addition to this, majority of the participants with very low psychopathy rank do not have high ADS scores which shows us that there is a relation between psychopathic personality traits and academic misconduct.