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title: Student Survey

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date: December 29, 2019

output:

word\_document: default

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**Student Survey**

a.

I would use the covariance function to determine decreasing and

increasing variables,

and evaluate the relationship between the variables. The results will

indicate that

a relationship between the variables exist or do not exist.

b.

The units of measure are ordinal, ratio and quantifiable. Changing the

units of measurement could affect the covariance because the

differences

between each number may change the mean

and change the covariance of the variables.

c.

The type of correlation test I would perform on the student survey

data is polychoric correlation coefficient

because it will characterize ordinal variables' relationship and it is

mostly used for analyzing survey data

for responses that are ordinal. Pearson, Kendall, and Spearman test c

an be used as well.

d.

The single correlation between happiness and time tv was 0.636556,

0.1570118 between happiness and gender,

-0.4348663 correlation between happiness and time reading. The

correlation between all variables is -0.4348663.The results of the

correlation

test with 99 % confidence interval between the Happiness and TimeTv

variables indicated that t= 2.461, df = 9, p-value = 0.3521. The

alternative hypothesis

result was true correlation is not equal to zero. The 99 percent

confidence interval resulted in -0.1570212 and 0.9306275. The sample

estimates for the correlation between Happiness and TimeTV was

0.636556.

e.

There were 451.01 gender 1 people that were happier than the gender 0.

Gender 0 had 355.37 people that were happy. Gender 1 had 95.64 of more

people that were

happier then gender 0. Gender 1 watched 445 hours of tv, and gender 0

watched 370 hours of tv. Gender 1 spent 21hours reading and Gender 0

spend 19 hours reading.

Overall gender 1 were happier because they spent more time watching tv

versus gender 0. Gender1 read more hours than gender 0. Even though gender 1 spent more time

watching tv they also read more than gender 0.

myData <- student.survey

myData

cov(myData, use = "complete.obs")

cor(myData)

x <- c(student.survey$Happiness)

y <- c(student.survey$TimeTV)

cor(x, y, method = c("pearson", "kendall", "spearman"))

x <- c(student.survey$Happiness)

y <- c(student.survey$TimeTV)

cor.test(x, y,

alternative = c("two.sided", "less", "greater"),

method = c("pearson","kendall", "spearman"),

exact = NULL, conf.level = 0.99,

continuity = FALSE)

summary(myData)