MET CS 555

Hao Wu

Assignment 5

Question 1

Each group have 15 students.

IQ:

Group.1 x.Min. x.1st Qu. x.Median x.Mean x.3rd Qu. x.Max.

Chemistry student 40.00000 44.00000 46.00000 46.26667 48.00000 52.00000

Math student 24.00000 36.00000 38.00000 37.60000 40.50000 45.00000

Physics student 25.00000 31.50000 34.00000 34.13333 37.50000 42.00000

Age:

Group.1 x.Min. x.1st Qu. x.Median x.Mean x.3rd Qu. x.Max.

Chemistry student 32.00000 38.00000 41.00000 40.06667 43.00000 46.00000

Math student 16.00000 19.00000 20.00000 20.73333 22.50000 28.00000

Physics student 14.00000 16.00000 17.00000 17.13333 18.50000 20.00000

图表, 散点图

描述已自动生成

Question 2

Yes, the test scores vary by student group.

H0 :Student group has no impact on iq.

H1 :Student group has significant impact on iq.

Degree of freedom: 42

F-statistic = 26.57 > 3.22 (0.05 significant level) so that we reject Null hypothsis.

Student group has significant impact on iq.

Question 3

1 represent chemis, 0 represent other group.

H0 :Student group has no impact on iq.

H1 :Student group has significant impact on iq.

Degree of freedom: 43

F-statistic = 45.76 > 3.22(0.05 significant level) so that we reject Null hypothsis.

Student group has significant impact on iq.

The final value didn’t change; however, the F- statistic changed and the df changed.

Question 4

We get two f-statistic value. For group is 30.03, for age is 6.48. All of them larger than 3.22 at 0.05 significant level; therefore, we said group and age have significant impact on iq.