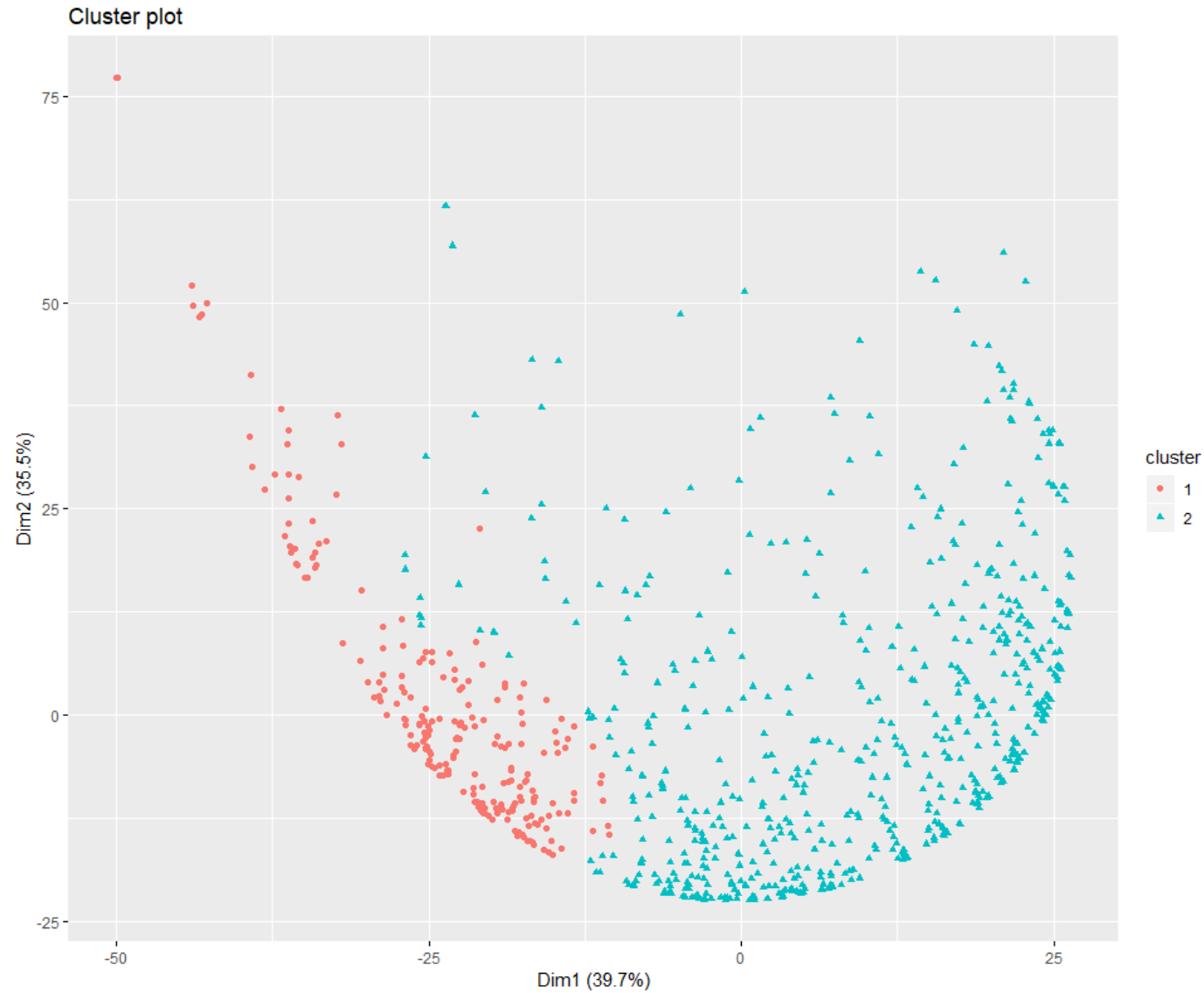


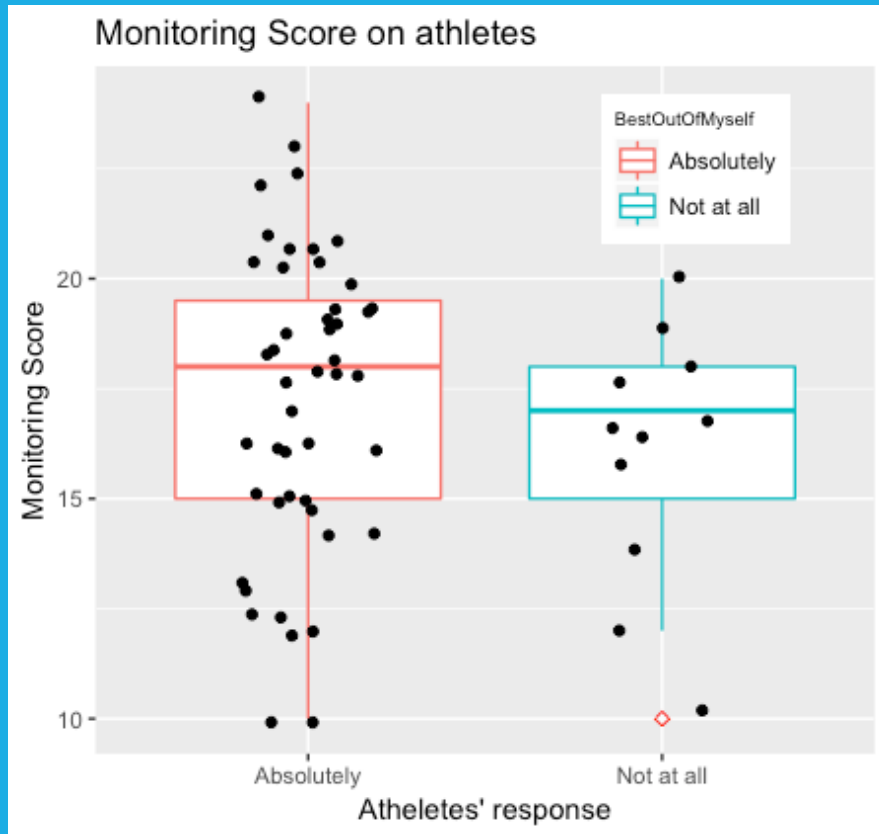
TEAM SUPREMUM

Group members: Ziang Zhang
Jialun Lyu
Haoye Wang
Xiaotong Liu



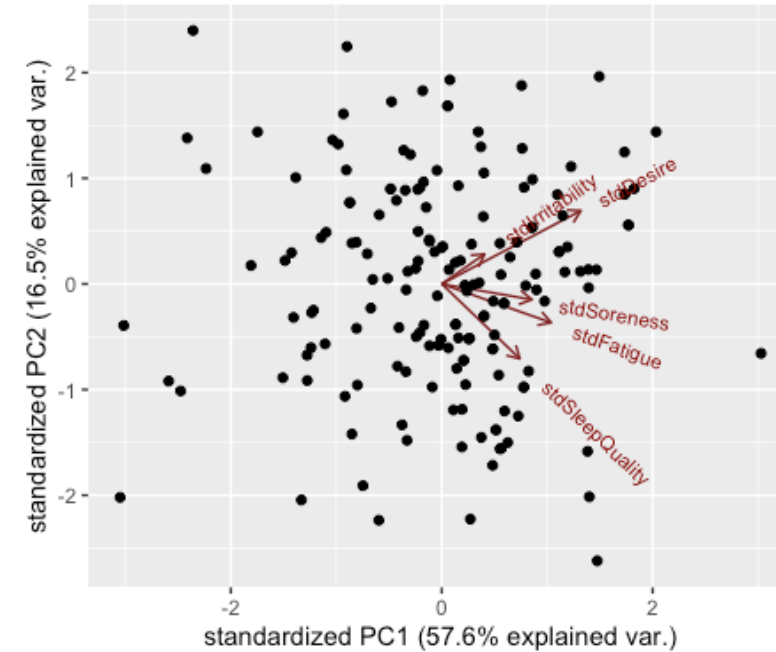
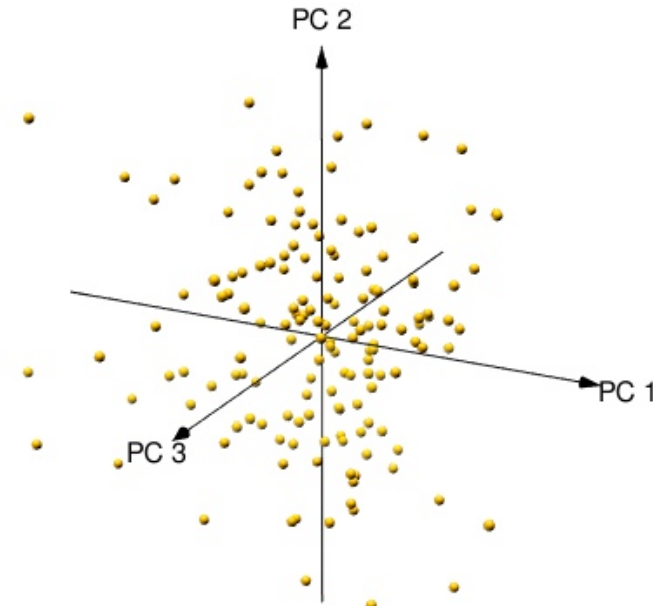
WHAT IS A GOOD OVERALL MEASURE OF FATIGUE?

Monitoring Score?



Is there a way to improve it?

YES! Try "Sscore" !

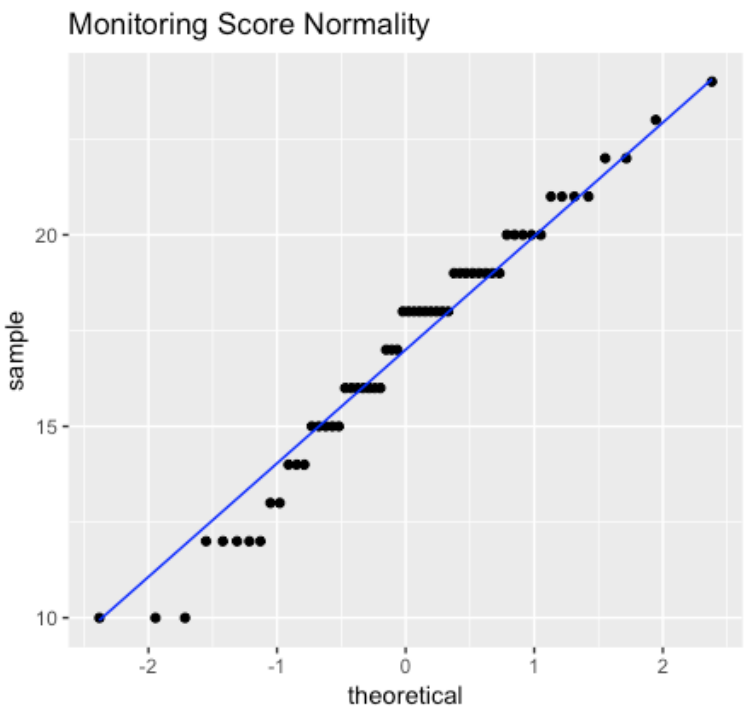
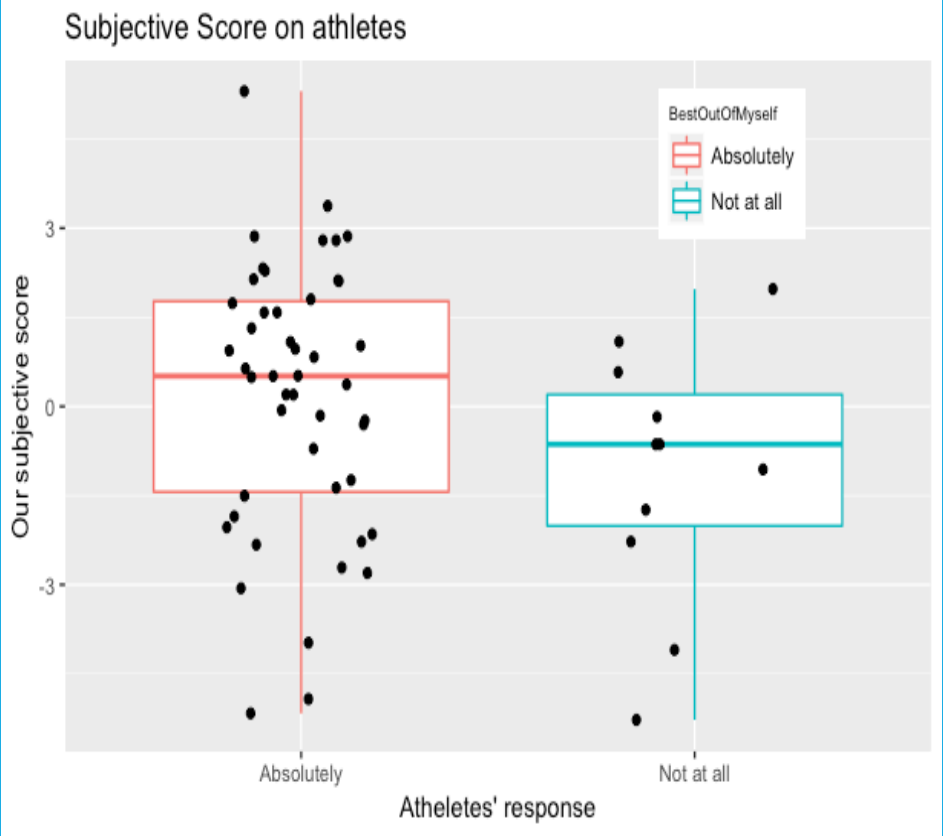


Principle Component Analysis



	PC1	PC2	PC3	PC4	PC5
stdFatigue	0.5026091	-0.3318190	0.3150899	-0.6702441	-0.29794534
stdSoreness	0.4140121	-0.1342415	0.5684078	0.3853047	0.58225941
stdDesire	0.6392215	0.6287075	-0.1425370	0.2505378	-0.33620929
stdIrritability	0.1967807	0.2561743	-0.4447220	-0.4893164	0.67708487
stdSleepQuality	0.3586799	-0.6410748	-0.5996136	0.3164069	-0.02686898

A CLEAR COMPARISON

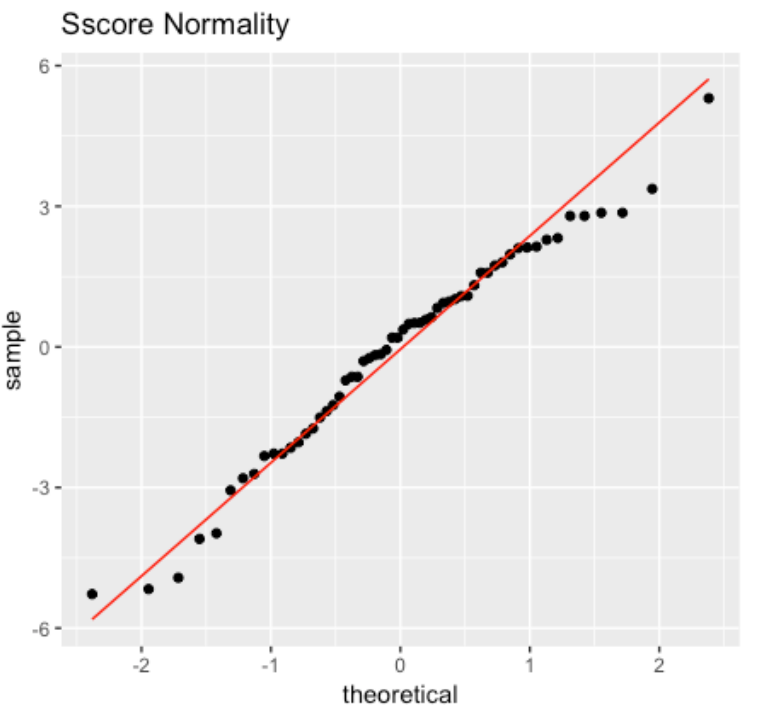


F test to compare two variances

```
data: ANOVA$MonitoringScore[ANOVA$BestOutOfMyself == "Not at all"] and ANOVA$MonitoringScore[ANOVA$BestOutOfMyself == "Absolutely"]
F = 0.77258, num df = 10, denom df = 46, p-value = 0.692
alternative hypothesis: true ratio of variances is not equal to 1
95 percent confidence interval:
 0.3299648 2.4979691
sample estimates:
ratio of variances
 0.7725843
```

Two Sample t-test

```
data: ANOVA$MonitoringScore[ANOVA$BestOutOfMyself == "Not at all"] and ANOVA$MonitoringScore[ANOVA$BestOutOfMyself == "Absolutely"]
t = -0.97797, df = 56, p-value = 0.3323
alternative hypothesis: true difference in means is not equal to 0
95 percent confidence interval:
-3.354976 1.153816
sample estimates:
mean of x mean of y
16.09091 17.19149
```



F test to compare two variances

```
data: ANOVA$Sscore[ANOVA$BestOutOfMyself == "Not at all"] and ANOVA$Sscore[ANOVA$BestOutOfMyself == "Absolutely"]
F = 0.91529, num df = 10, denom df = 46, p-value = 0.9449
alternative hypothesis: true ratio of variances is not equal to 1
95 percent confidence interval:
 0.3909133 2.9593745
sample estimates:
ratio of variances
 0.9152901
```

Two Sample t-test

```
data: ANOVA$Sscore[ANOVA$BestOutOfMyself == "Not at all"] and ANOVA$Sscore[ANOVA$BestOutOfMyself == "Absolutely"]
t = -1.7097, df = 56, p-value = 0.09286
alternative hypothesis: true difference in means is not equal to 0
95 percent confidence interval:
-2.7834244 0.2200434
sample estimates:
mean of x mean of y
-1.1142097 0.1674807
```

APPLICATION

