

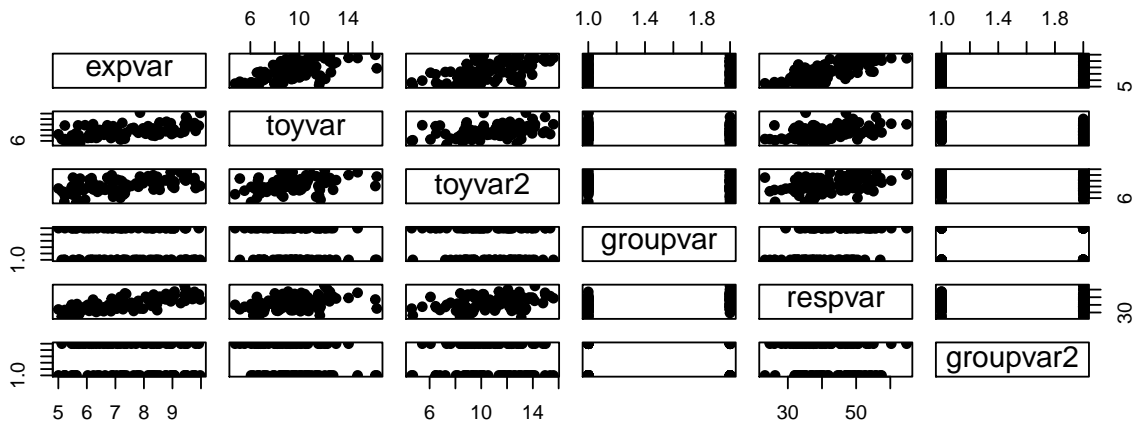
# R Workshop Module 3: Plotting Data in R

Katherine Thompson (katherine.thompson@uky.edu)

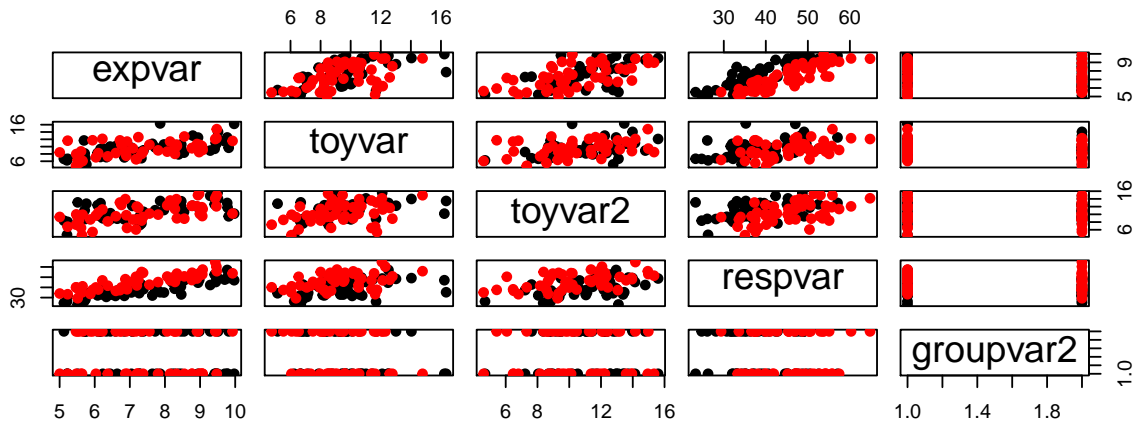
Department of Statistics, University of Kentucky

October 7, 2016

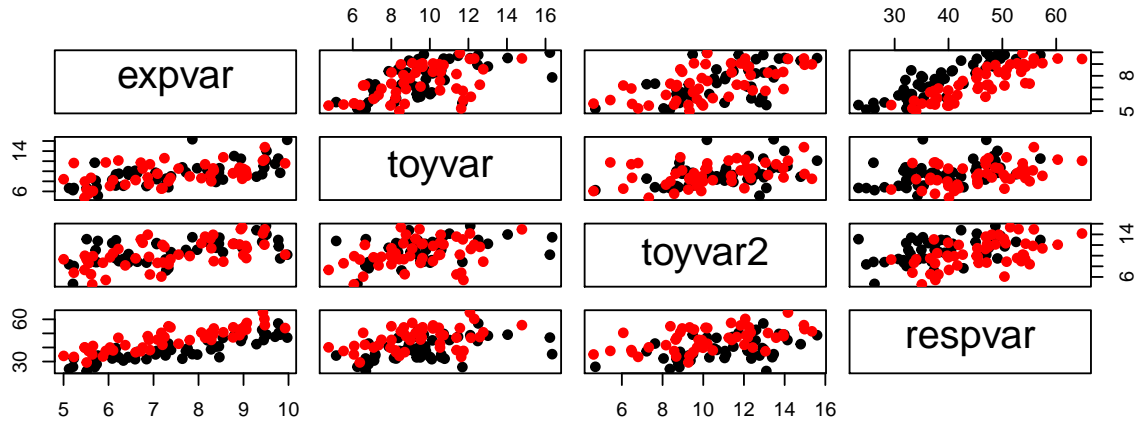
```
#####  
## Scatterplot Matrices  
#####  
## Make a scatterplot matrix of practice data  
plot(practicedata,  
      pch=19)
```



```
## Instead of plotting groupvar, color points according to groupvar  
plot(practicedata[,colnames(practicedata)!='groupvar'],  
      pch=19,col=practicedata$groupvar)
```



```
## Also remove groupvar2 from plot
plot(practicedata[,-c(4,6)],
     pch=19,col=practicedata$groupvar)
```



```
#####
## Triangle Plot
#####
#install.packages('ade4') # Install package once per computer
library(ade4)

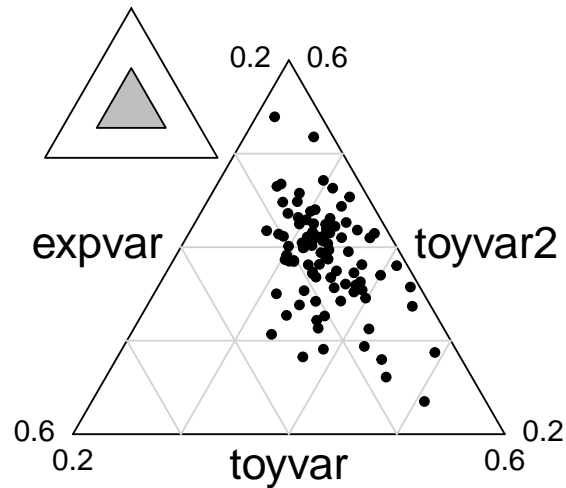
## Warning: package 'ade4' was built under R version 3.3.1

## Make a triangle plot of the data
triangle.plot(practicedata[,c('expvar','toyvar','respvar')])

## Error in if (min(ta) < 0) stop("Non convenient data"): missing value where TRUE/FALSE needed

## Correct error in plot by removing observations with missing data
triangledata=na.omit(practicedata[,c('expvar','toyvar','toyvar2')])

triangle.plot(triangledata)
```



```
#####
## Heat Map
#####
#install.packages('plotly') # Install package once per computer
library(plotly)
myx=-5:5
myy=6:10

## Make heat map
plot_ly(z=as.matrix(heatmapdata),
        y=myx,
        x=myy,
        type = "heatmap")
```

```
## Alternative to heat map
plot(myx,heatmapdata[,1],type='n',ylim=range(heatmapdata),
     xlab='x',ylab='Response') ## Gives an error since data is not a matrix

## Convert data to a matrix

plot(myx,heatmapdata[,1],type='n',ylim=range(heatmapdata),
     xlab='x',ylab='Response')
lines(myx,heatmapdata[,1],col=1)
lines(myx,heatmapdata[,2],col=2)
lines(myx,heatmapdata[,3],col=3)
lines(myx,heatmapdata[,4],col=4)
lines(myx,heatmapdata[,5],col=5)
legend('topleft',
      legend=paste0('y=',myy),
      col=1:5,
      lty=1)
```