ANALYSIS OF PARTICIPANTS' TRAINING EVALUATION

NAFDAC Gender Training/Workshop

Enugu, Nigeria, 6th October 2015

ABSTRACT

Data from the Evaluation Questionnaire reveals that the Participants were satisfied with the trainers' proficiency and insight into the topic, but expressed the need for strict adherence to the training schedule and allotted time.

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Introduction

GHMC conducted a training on gender issues for the National Agency for Food and Drug Administration and Control (NAFDAC) at Villa Toscana, Enugu on 6th October 2015.

At the end of the training session, participants were given an evaluation questionnaire that asked participants to score aspects of the activity, ranging from a minimum score of 1 to a maximum of 5. The areas thus evaluated are as follows:
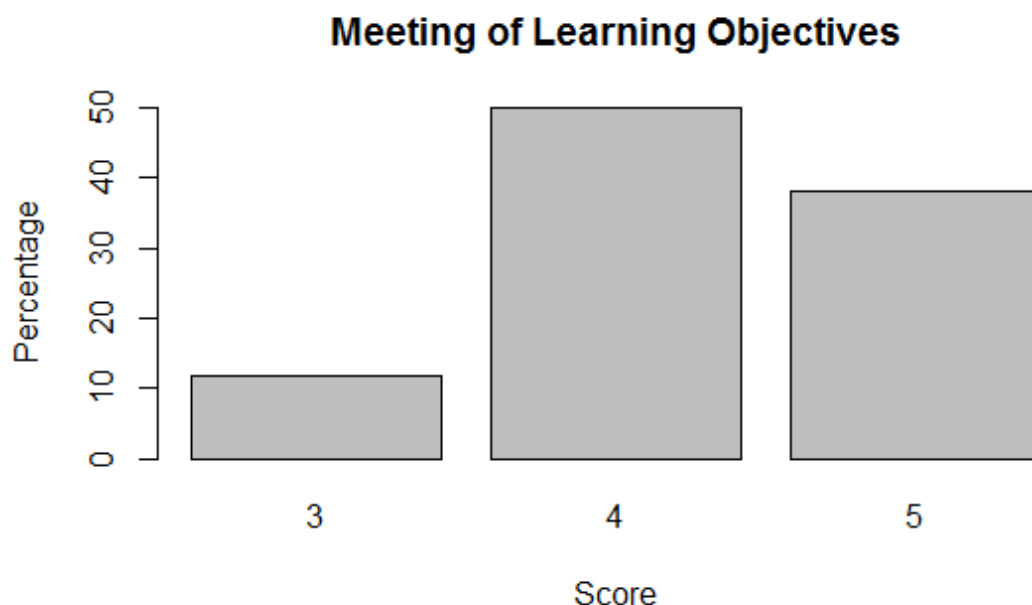
- Whether the learning objectives were achieved
- Whether exercised were used and if these helped the achievement of learning objectives
- Whether group facilitation (ability to obtain group participation) was good
- Whether session was kept on track and was within time allotted
- Whether materials, hand-outs and audio-visual aids were clear and helpful
- Whether amount of time given for discussion/Q&A were adequate
- Whether the training technique/methods were appropriate for the topics treated
- Whether the venue was conducive
- General rating of the workshop

The participants were also required to respond to open-ended questions bordering on the strengths/weaknesses of the session and their suggestions for improvement for future trainings.
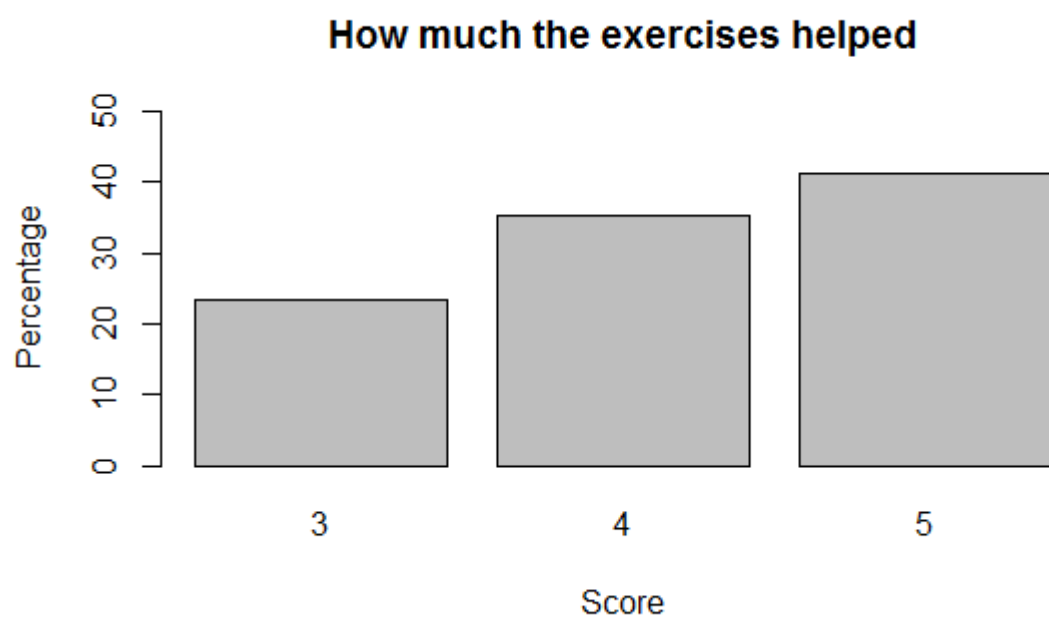
Data

Analysis of the data was conducted using RStudio[1] (see code in the Appendix). The dataset consisted of 34 respondents
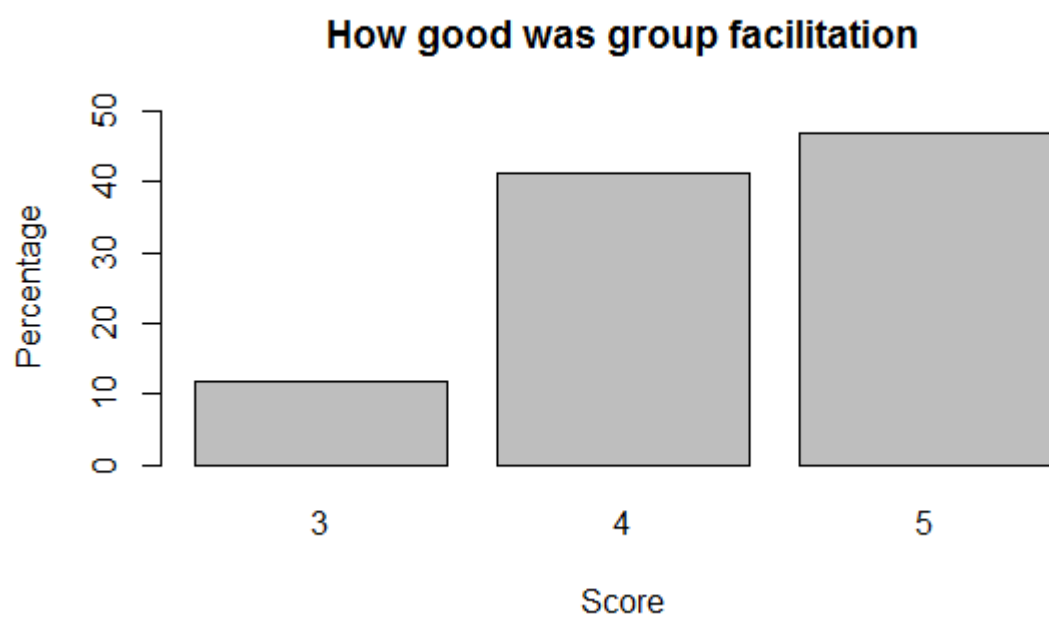
1.

Meeting of Learning Objectives

2.

How much the exercises helped

3.

How good was group facilitation

4.

Session on track with time

5.

Materials, handouts, audiovisuals

6.

Time given for discussions

7.

Appropriate methodology and technique

4

8.

Venue Conducive?

9.

How training was rated generally
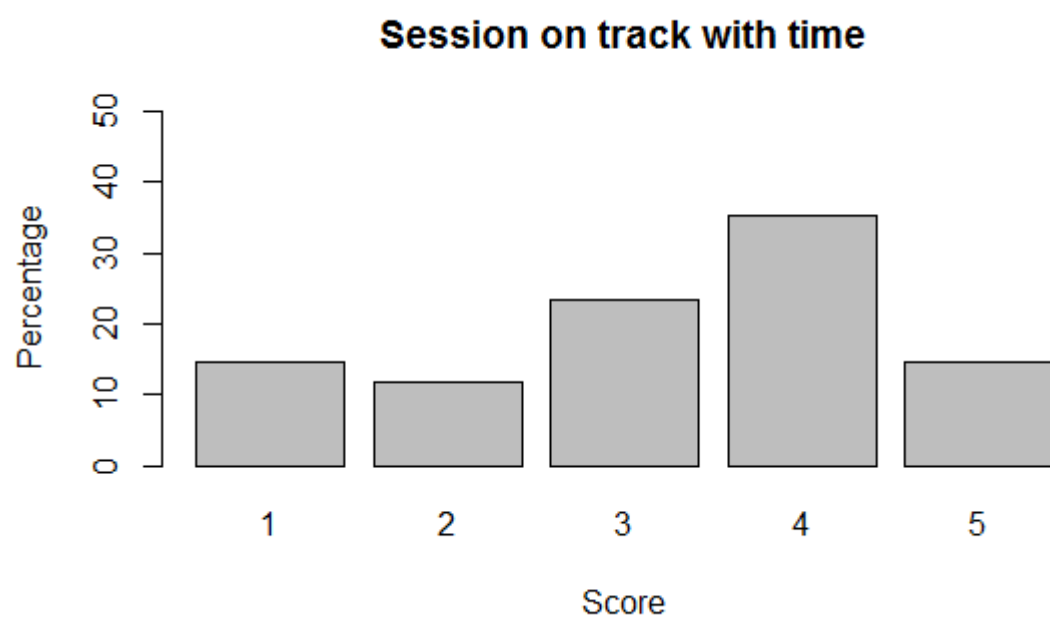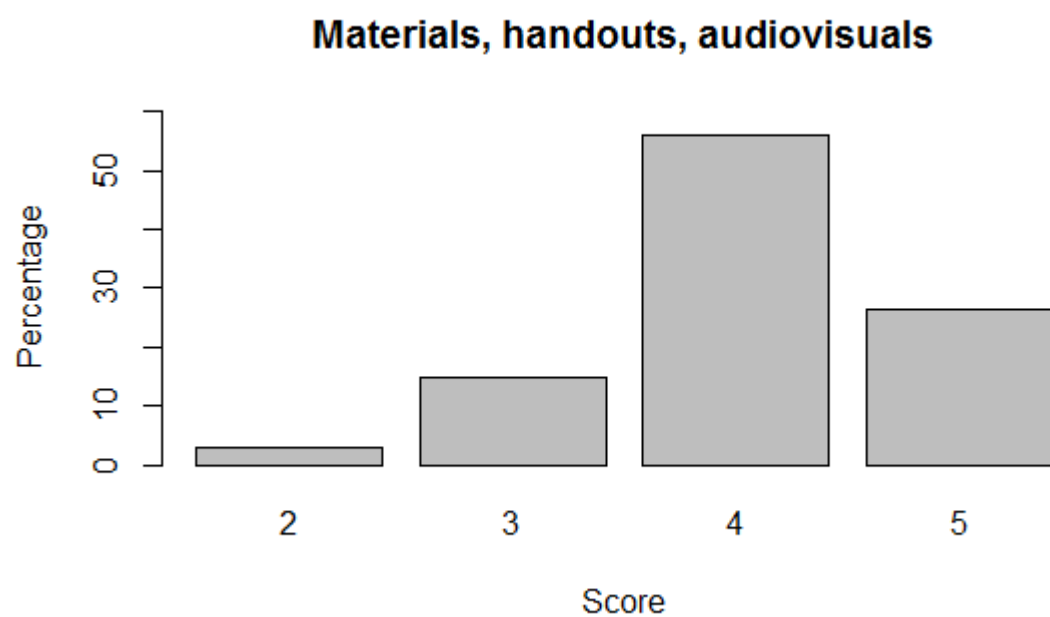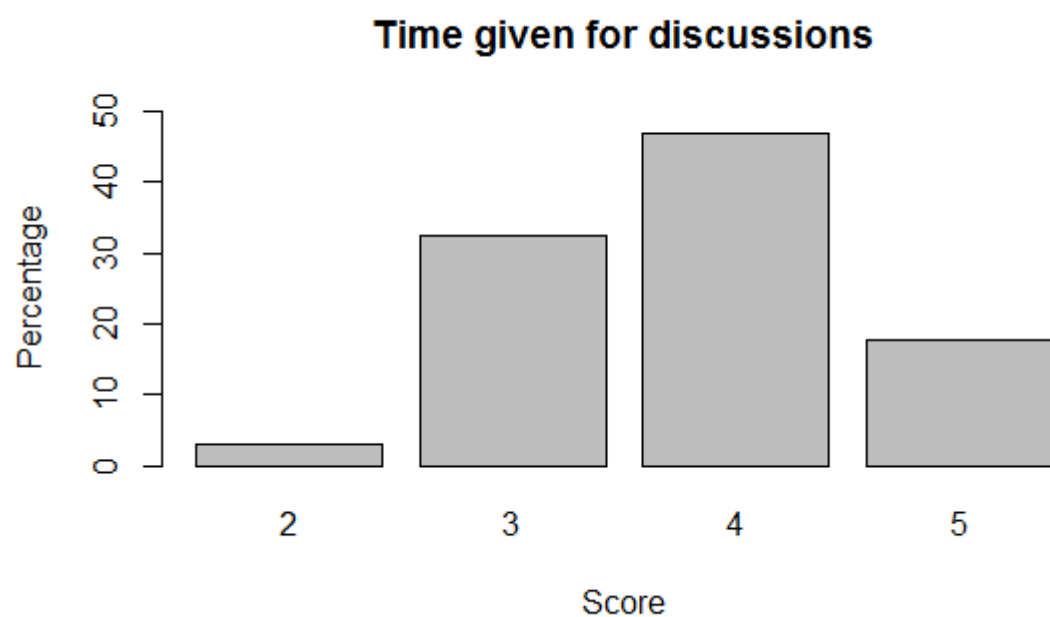
Further Exploration of the dataset

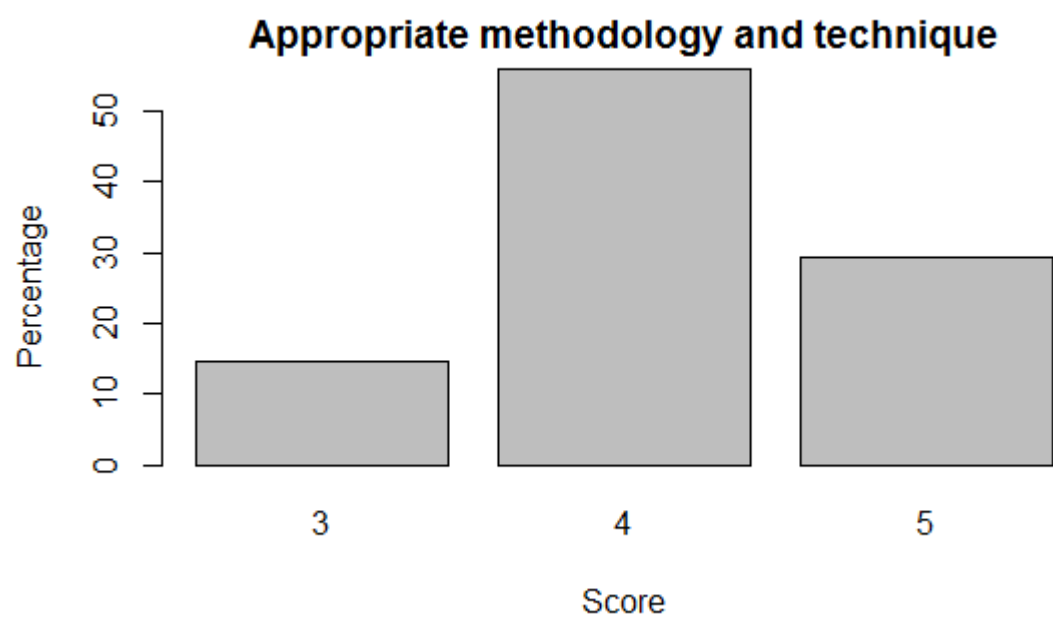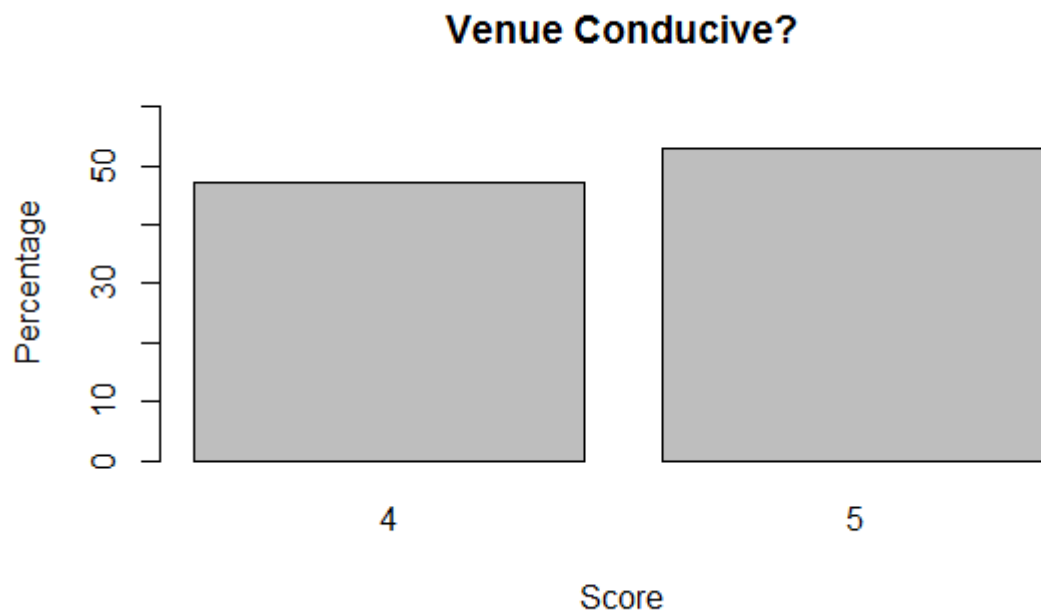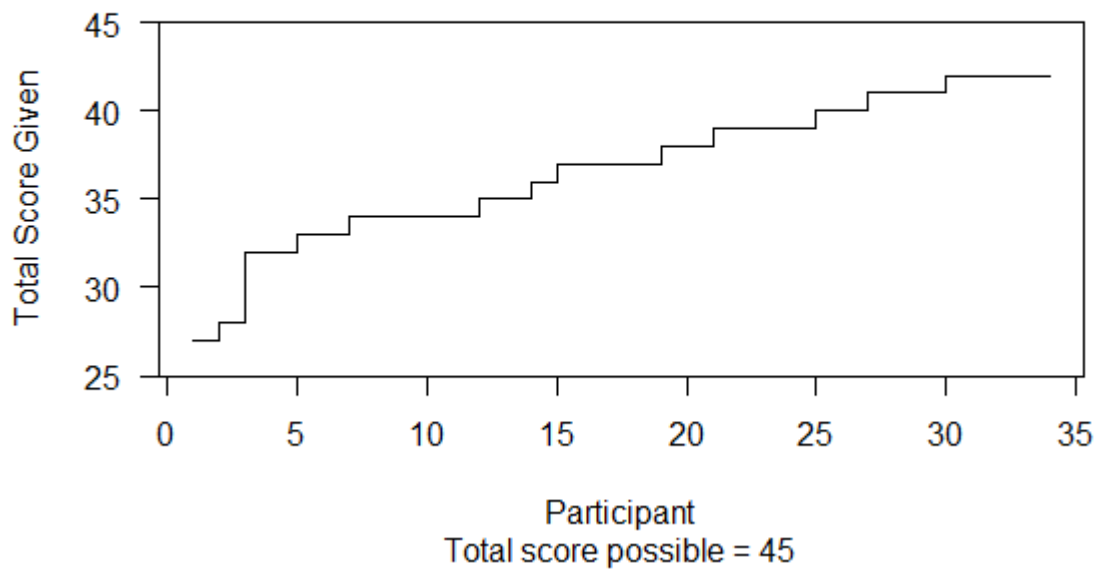The total scores of individual participants were computed and charted in a staircase plot. With a possible total score of 45 points, the points awarded by participants ranged from 27 to 42 (see Figure below):

Total scores of individual participants

Participant
Total score possible = 45

On examining the points awarded to the each of the questions, the data show that participants awarded the most points to the "**Conduciveness of the venue" (154 points)**, while they awarded the least to **"Keeping track of the schedule and timeliness" (110 points).**

Participants' dissatisfaction with the time-keeping of the training session was further corroborated by their response to the open-ended questions, where many of them expressed their displeasure. The technical capabilities of the resource persons were however identified as strengths; participants said they were knowledgeable and had a good grasp of the subject matter of the workshop.

Conclusion
The training evaluation revealed that the participants were satisfied with its delivery, but there is a need to introduce measures to ensure timeliness and adherence to the training schedule.

Appendix – R Code for the Analysis

```r
# Training Evaluation for NAFDAC Gender Workshop, Enugu, 6 October 2015

#Import dataset
setwd("~/2-Biz/GHMC/NAFDAC/GenderPolicy/NAFDAC TRAINING/Enugu/output")
eval <- read.csv("Eval.csv",
                 na.strings="",
                 stringsAsFactors=FALSE)

#Explore
head(eval)
tail(eval)
str(eval)
eval[,2:10] <- apply(eval[,2:10], 2, function(x) as.factor(x))
#separate core data points for analysis
core <- eval[, 2:10]

#Looking for missing values
apply(core,2, function(x) sum(is.na(x)))
apply(core, 1, function(x) sum(is.na(x)))
#map missing values
library(Amelia)
missmap(core)

#replace missing categorical values with mode
#creating a function for the mode
Mode <- function(x, na.rm){
  xtab <- table(x)
  xmode <- names(which(xtab == max(xtab)))
  if(length(xmode) > 1) xmode <- ">1 mode"
  return(xmode)
}

#replacing the NAs in the dataframe
core$rating[is.na(core$rating)] <- Mode(core$rating)
core$venue[is.na(core$venue)] <- Mode(core$venue)
core$method[is.na(core$method)] <- Mode(core$method)
core$mat[is.na(core$mat)] <- Mode(core$mat)
core$exer[is.na(core$exer)] <- Mode(core$exer)
rm(Mode)

missmap(core) #check new map
#cleaning up the work- and namespace
search()
detach(package:Amelia, unload = TRUE)
detach(package:Rcpp, unload = TRUE)
loadedNamespaces()
unloadNamespace("foreign")
loadedNamespaces()

#ANALYSIS PROPER
#Learning objectives met
learn <- table(core$learn)
round(prop.table(learn),2)
barplot(prop.table(learn)*100,
        ylim = c(0,.5 )*100,
        main = "Meeting of Learning Objectives",
        ylab = "Percentage",
        xlab = "Score")
rm(learn)
```

```r
#Did exercises help?
exer <- table(core$exer)
round(prop.table(exer),2)
barplot(prop.table(exer)*100,
        ylim = c(0,.5 )*100,
        main = "How much the exercises helped",
        ylab = "Percentage",
        xlab = "Score")
rm(exer)

#How good was group facilitation
grp <- table(core$grp)
round(prop.table(grp),2)
barplot(prop.table(grp)*100,
        ylim = c(0,.5 )*100,
        main = "How good was group facilitation",
        ylab = "Percentage",
        xlab = "Score")
rm(grp)

#Session on track with time
trk <- table(core$trk)
round(prop.table(trk),2)
barplot(prop.table(trk)*100,
        ylim = c(0,.5 )*100,
        main = "Session on track with time",
        ylab = "Percentage",
        xlab = "Score")
rm(trk)

#Materials, handouts, audio-visuals
mat <- table(core$mat)
round(prop.table(mat),2)
barplot(prop.table(mat)*100,
        ylim = c(0,.6 )*100,
        main = "Materials, handouts, audiovisuals",
        ylab = "Percentage",
        xlab = "Score")
rm(mat)

#Time given for discussions
time <- table(core$time)
round(prop.table(time),2)
barplot(prop.table(time)*100,
        ylim = c(0,.5 )*100,
        main = "Time given for discussions",
        ylab = "Percentage",
        xlab = "Score")
rm(time)

#Appropriate methodology and technique
method <- table(core$method)
round(prop.table(method),2)
barplot(prop.table(method)*100,
        ylim = c(0,.5 )*100,
        main = "Appropriate methodology and technique",
        ylab = "Percentage",
        xlab = "Score")
rm(method)
```

```r
#Venue conducive
venue <- table(core$venue)
round(prop.table(venue),2)
barplot(prop.table(venue)*100,
        ylim = c(0,.6)*100,
        main = "Venue Conducive?",
        ylab = "Percentage",
        xlab = "Score")
rm(venue)

#How Training was rated
rating <- table(core$rating)
round(prop.table(rating),2)
barplot(prop.table(rating)*100,
        ylim = c(0,.5 )*100,
        main = "How training was rated generally",
        ylab = "Percentage",
        xlab = "Score")
rm(rating)

#Analyse scoring
#Convert characters to integer
core <- apply(core, 2, function(x) as.integer(x))

#create new variable total scores of individual participants
indiv.score <- apply(core, 1, sum)
core <- as.data.frame(cbind(core, indiv.score))
rm(indiv.score)
max(core$indiv.score); min(core$indiv.score) #obtain max/min scores

#plot total scores after sorting in ascending order
plot(sort(core$indiv.score),
     type = "s",
     ylim = c(25, 45),
     xlim = c(1, 34),
     main = "Total scores of individual participants",
     sub = "Total score possible = 45",
     ylab = "Total Score Given",
     xlab = "Participant",
     axes = FALSE)
axis(2, las = 2)
axis(1)
box()

#Assess total scoring for different questions asked
ques.score <- apply(core[,-10], 2, sum)
ques.score
which(ques.score == max(ques.score))
which(ques.score == min(ques.score))

rm(list = ls())

#END
```