Proportions

Me

3/22/2018

table(master$mention.outliers)

##   
## no yes   
## 1777 457

master$mention.outliers = factor(master$mention.outliers,  
 levels = c("no", "yes"),  
 labels = c("No", "Yes"))  
  
##create a data frame of the percentages  
outsummary = table(master$mention.outliers, master$time.pulled, master$Type)  
outsummary = as.data.frame(outsummary)  
colnames(outsummary) = c("mention.outliers", "time.pulled", "Type", "Freq")  
  
##here we want to calculate if they mention outliers by year and type  
##want to focus on the yeses   
library(dplyr)

##   
## Attaching package: 'dplyr'

## The following objects are masked from 'package:stats':  
##   
## filter, lag

## The following objects are masked from 'package:base':  
##   
## intersect, setdiff, setequal, union

outpercent = group\_by(outsummary, time.pulled, Type) %>%  
 mutate(percent = Freq/sum(Freq)\*100)  
  
kable(outpercent)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| mention.outliers | time.pulled | Type | Freq | percent |
| No | 2012 | Clinical | 49 | 90.740741 |
| Yes | 2012 | Clinical | 5 | 9.259259 |
| No | 2017 | Clinical | 44 | 88.000000 |
| Yes | 2017 | Clinical | 6 | 12.000000 |
| No | 2012 | Cognitive | 113 | 68.902439 |
| Yes | 2012 | Cognitive | 51 | 31.097561 |
| No | 2017 | Cognitive | 68 | 50.370370 |
| Yes | 2017 | Cognitive | 67 | 49.629630 |
| No | 2012 | Counseling | 48 | 85.714286 |
| Yes | 2012 | Counseling | 8 | 14.285714 |
| No | 2017 | Counseling | 41 | 71.929825 |
| Yes | 2017 | Counseling | 16 | 28.070175 |
| No | 2012 | Developmental | 56 | 80.000000 |
| Yes | 2012 | Developmental | 14 | 20.000000 |
| No | 2017 | Developmental | 40 | 65.573770 |
| Yes | 2017 | Developmental | 21 | 34.426229 |
| No | 2012 | Educational | 51 | 91.071429 |
| Yes | 2012 | Educational | 5 | 8.928571 |
| No | 2017 | Educational | 51 | 87.931034 |
| Yes | 2017 | Educational | 7 | 12.068965 |
| No | 2012 | Environmental | 51 | 87.931034 |
| Yes | 2012 | Environmental | 7 | 12.068965 |
| No | 2017 | Environmental | 51 | 87.931034 |
| Yes | 2017 | Environmental | 7 | 12.068965 |
| No | 2012 | Forensics | 60 | 96.774193 |
| Yes | 2012 | Forensics | 2 | 3.225807 |
| No | 2017 | Forensics | 57 | 81.428571 |
| Yes | 2017 | Forensics | 13 | 18.571429 |
| No | 2012 | IO | 98 | 94.230769 |
| Yes | 2012 | IO | 6 | 5.769231 |
| No | 2017 | IO | 101 | 81.451613 |
| Yes | 2017 | IO | 23 | 18.548387 |
| No | 2012 | Methods | 57 | 86.363636 |
| Yes | 2012 | Methods | 9 | 13.636364 |
| No | 2017 | Methods | 53 | 88.333333 |
| Yes | 2017 | Methods | 7 | 11.666667 |
| No | 2012 | Neuro | 41 | 69.491525 |
| Yes | 2012 | Neuro | 18 | 30.508475 |
| No | 2017 | Neuro | 46 | 82.142857 |
| Yes | 2017 | Neuro | 10 | 17.857143 |
| No | 2012 | Overview | 89 | 78.070175 |
| Yes | 2012 | Overview | 25 | 21.929825 |
| No | 2017 | Overview | 107 | 81.060606 |
| Yes | 2017 | Overview | 25 | 18.939394 |
| No | 2012 | Social | 148 | 90.243902 |
| Yes | 2012 | Social | 16 | 9.756098 |
| No | 2017 | Social | 153 | 66.233766 |
| Yes | 2017 | Social | 78 | 33.766234 |
| No | 2012 | Sports | 54 | 93.103448 |
| Yes | 2012 | Sports | 4 | 6.896552 |
| No | 2017 | Sports | 50 | 87.719298 |
| Yes | 2017 | Sports | 7 | 12.280702 |

##in the outpercent table, you see the percent based on year and Type, so each yes/no combination adds up to one hundred. We are only interested in the percent of yeses.

library(ggplot2)  
  
cleanup = theme(panel.grid.major = element\_blank(),   
 panel.grid.minor = element\_blank(),   
 panel.background = element\_blank(),   
 axis.line = element\_line(colour = "black"),   
 legend.key = element\_rect(fill = "white"),  
 text = element\_text(size = 15))  
  
graphdata = subset(outpercent, mention.outliers == "Yes")  
  
#calculate CIs to add to graph  
graphdata$sample = as.data.frame(table(master$time.pulled, master$Type))$Freq  
graphdata$SE = sqrt(graphdata$percent\*(100-graphdata$percent)/graphdata$sample)  
  
dotplot = ggplot(graphdata, aes(Type, percent, color = time.pulled))  
finalgraph = dotplot +  
 geom\_pointrange(aes(ymin=percent-1.96\*SE, ymax=percent+1.96\*SE))+   
 cleanup +  
 xlab("Field of Journal") +  
 ylab("Percent of Outlier Mentions") +   
 theme(axis.text.x = element\_text(angle = 60, hjust = 1)) +  
 scale\_color\_manual(name = "Year",   
 values = c("maroon", "gray")) +   
 coord\_cartesian(ylim = c(0,75))  
  
#tiff(filename = "mention\_graph.tiff", res = 300, width = 6,   
# height = 6, units = 'in', compression = "lzw")  
#plot(finalgraph)  
#dev.off()

library(MOTE)

## Loading required package: MBESS

graphdata$prop = graphdata$percent/100  
types = levels(graphdata$Type)  
for (i in 1:length(types))  
{  
 saved = d.prop(graphdata$prop[graphdata$Type==types[i]][1],  
 graphdata$prop[graphdata$Type==types[i]][2],  
 graphdata$sample[ graphdata$Type==types[i]][1],   
 graphdata$sample[ graphdata$Type==types[i]][2],  
 a = .05)   
 print(c(types[i],saved$d))  
}

## [1] "Clinical" "-0.263782450027613"  
## [1] "Cognitive" "-2.92984621220425"  
## [1] "Counseling" "-1.6612937182656"  
## [1] "Developmental" "-1.47576339409799"  
## [1] "Educational" "-0.478369444308136"  
## [1] "Environmental" "0"   
## [1] "Forensics" "-2.55802105100494"  
## [1] "IO" "-2.79054827280216"  
## [1] "Methods" "0.413111649160499"  
## [1] "Neuro" "1.60033037768811"  
## [1] "Overview" "0.105361831890563"  
## [1] "Social" "-6.641276236343"  
## [1] "Sports" "-0.752138477678703"

master$reason.code

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## [2016] statistical reason   
## [2017] participant error, statistical reason   
## [2018] participant error, statistical reason   
## [2019] participant error, statistical reason   
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## [2034] participant error   
## [2035] participant error   
## [2036] participant error   
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## [2039] participant error   
## [2040] participant error   
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## [2045] participant error, statistical reason   
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## [2047] participant error, statistical reason   
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## [2059] participant error, experimenter error   
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## [2066] statistical reason   
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## [2068] participant error, statistical reason   
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## [2077] participant error, statistical reason   
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## [2191] statistical reason   
## [2192] statistical reason   
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## [2194] participant error   
## [2195] participant error   
## [2196] participant error, experimenter error   
## [2197] participant error, statistical reason   
## [2198] participant error   
## [2199] participant error, experimenter error   
## [2200] statistical reason   
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## [2206] statistical reason   
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## [2208] statistical reason   
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## [2229] statistical reason   
## [2230] statistical reason   
## [2231] statistical reason   
## [2232] participant error   
## [2233] participant error   
## [2234] participant error   
## 11 Levels: participant error ... unusable data

table(master$reason.code)

##   
##   
## 1776   
## participant error   
## 166   
## participant error, experimenter error   
## 8   
## participant error, statistical reason   
## 45   
## participant error, statistical reasons   
## 1   
## participant error, unusable data   
## 1   
## statistical reason   
## 207   
## statistical reason, experimenter error   
## 1   
## statistical reason, participant error   
## 10   
## statistical reason, unusable data   
## 1   
## unusable data   
## 18

reasons = subset(master, mention.outliers == "Yes")  
  
##create reason columns  
reasons$part = 0  
reasons$part[ grep("part", reasons$reason.code)] = 1  
reasons$stat = 0  
reasons$stat[ grep("stat", reasons$reason.code)] = 1  
reasons$exp = 0  
reasons$exp[ grep("unus", reasons$reason.code)] = 1  
  
##create a data frame of the percentages  
reasonssummary = table(reasons$part, reasons$time.pulled, reasons$Type)  
reasonssummary = as.data.frame(reasonssummary)  
colnames(reasonssummary) = c("yesno", "time.pulled", "Type", "part.freq")  
reasonssummary$stat.freq = as.data.frame(table(reasons$stat, reasons$time.pulled, reasons$Type))$Freq  
reasonssummary$exp.freq = as.data.frame(table(reasons$exp, reasons$time.pulled, reasons$Type))$Freq  
  
reasonspercent = group\_by(reasonssummary, time.pulled, Type) %>%  
 mutate(part.percent = part.freq/sum(part.freq)\*100) %>%  
 mutate(stat.percent = stat.freq/sum(stat.freq)\*100) %>%  
 mutate(exp.percent = exp.freq/sum(exp.freq)\*100)   
  
kable(reasonspercent)

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| yesno | time.pulled | Type | part.freq | stat.freq | exp.freq | part.percent | stat.percent | exp.percent |
| 0 | 2012 | Clinical | 4 | 1 | 5 | 80.00000 | 20.000000 | 100.000000 |
| 1 | 2012 | Clinical | 1 | 4 | 0 | 20.00000 | 80.000000 | 0.000000 |
| 0 | 2017 | Clinical | 4 | 1 | 6 | 66.66667 | 16.666667 | 100.000000 |
| 1 | 2017 | Clinical | 2 | 5 | 0 | 33.33333 | 83.333333 | 0.000000 |
| 0 | 2012 | Cognitive | 25 | 18 | 49 | 49.01961 | 35.294118 | 96.078431 |
| 1 | 2012 | Cognitive | 26 | 33 | 2 | 50.98039 | 64.705882 | 3.921569 |
| 0 | 2017 | Cognitive | 22 | 36 | 67 | 32.83582 | 53.731343 | 100.000000 |
| 1 | 2017 | Cognitive | 45 | 31 | 0 | 67.16418 | 46.268657 | 0.000000 |
| 0 | 2012 | Counseling | 8 | 0 | 8 | 100.00000 | 0.000000 | 100.000000 |
| 1 | 2012 | Counseling | 0 | 8 | 0 | 0.00000 | 100.000000 | 0.000000 |
| 0 | 2017 | Counseling | 14 | 2 | 16 | 87.50000 | 12.500000 | 100.000000 |
| 1 | 2017 | Counseling | 2 | 14 | 0 | 12.50000 | 87.500000 | 0.000000 |
| 0 | 2012 | Developmental | 4 | 9 | 14 | 28.57143 | 64.285714 | 100.000000 |
| 1 | 2012 | Developmental | 10 | 5 | 0 | 71.42857 | 35.714286 | 0.000000 |
| 0 | 2017 | Developmental | 8 | 12 | 21 | 38.09524 | 57.142857 | 100.000000 |
| 1 | 2017 | Developmental | 13 | 9 | 0 | 61.90476 | 42.857143 | 0.000000 |
| 0 | 2012 | Educational | 5 | 0 | 5 | 100.00000 | 0.000000 | 100.000000 |
| 1 | 2012 | Educational | 0 | 5 | 0 | 0.00000 | 100.000000 | 0.000000 |
| 0 | 2017 | Educational | 7 | 0 | 7 | 100.00000 | 0.000000 | 100.000000 |
| 1 | 2017 | Educational | 0 | 7 | 0 | 0.00000 | 100.000000 | 0.000000 |
| 0 | 2012 | Environmental | 4 | 5 | 5 | 57.14286 | 71.428571 | 71.428571 |
| 1 | 2012 | Environmental | 3 | 2 | 2 | 42.85714 | 28.571429 | 28.571429 |
| 0 | 2017 | Environmental | 5 | 2 | 7 | 71.42857 | 28.571429 | 100.000000 |
| 1 | 2017 | Environmental | 2 | 5 | 0 | 28.57143 | 71.428571 | 0.000000 |
| 0 | 2012 | Forensics | 2 | 0 | 2 | 100.00000 | 0.000000 | 100.000000 |
| 1 | 2012 | Forensics | 0 | 2 | 0 | 0.00000 | 100.000000 | 0.000000 |
| 0 | 2017 | Forensics | 6 | 9 | 10 | 46.15385 | 69.230769 | 76.923077 |
| 1 | 2017 | Forensics | 7 | 4 | 3 | 53.84615 | 30.769231 | 23.076923 |
| 0 | 2012 | IO | 6 | 0 | 6 | 100.00000 | 0.000000 | 100.000000 |
| 1 | 2012 | IO | 0 | 6 | 0 | 0.00000 | 100.000000 | 0.000000 |
| 0 | 2017 | IO | 4 | 21 | 20 | 17.39130 | 91.304348 | 86.956522 |
| 1 | 2017 | IO | 19 | 2 | 3 | 82.60870 | 8.695652 | 13.043478 |
| 0 | 2012 | Methods | 6 | 1 | 9 | 66.66667 | 11.111111 | 100.000000 |
| 1 | 2012 | Methods | 3 | 8 | 0 | 33.33333 | 88.888889 | 0.000000 |
| 0 | 2017 | Methods | 4 | 0 | 7 | 57.14286 | 0.000000 | 100.000000 |
| 1 | 2017 | Methods | 3 | 7 | 0 | 42.85714 | 100.000000 | 0.000000 |
| 0 | 2012 | Neuro | 11 | 2 | 18 | 61.11111 | 11.111111 | 100.000000 |
| 1 | 2012 | Neuro | 7 | 16 | 0 | 38.88889 | 88.888889 | 0.000000 |
| 0 | 2017 | Neuro | 10 | 0 | 10 | 100.00000 | 0.000000 | 100.000000 |
| 1 | 2017 | Neuro | 0 | 10 | 0 | 0.00000 | 100.000000 | 0.000000 |
| 0 | 2012 | Overview | 16 | 9 | 25 | 64.00000 | 36.000000 | 100.000000 |
| 1 | 2012 | Overview | 9 | 16 | 0 | 36.00000 | 64.000000 | 0.000000 |
| 0 | 2017 | Overview | 16 | 3 | 24 | 64.00000 | 12.000000 | 96.000000 |
| 1 | 2017 | Overview | 9 | 22 | 1 | 36.00000 | 88.000000 | 4.000000 |
| 0 | 2012 | Social | 10 | 8 | 13 | 62.50000 | 50.000000 | 81.250000 |
| 1 | 2012 | Social | 6 | 8 | 3 | 37.50000 | 50.000000 | 18.750000 |
| 0 | 2017 | Social | 18 | 49 | 73 | 23.07692 | 62.820513 | 93.589744 |
| 1 | 2017 | Social | 60 | 29 | 5 | 76.92308 | 37.179487 | 6.410256 |
| 0 | 2012 | Sports | 4 | 0 | 4 | 100.00000 | 0.000000 | 100.000000 |
| 1 | 2012 | Sports | 0 | 4 | 0 | 0.00000 | 100.000000 | 0.000000 |
| 0 | 2017 | Sports | 4 | 4 | 6 | 57.14286 | 57.142857 | 85.714286 |
| 1 | 2017 | Sports | 3 | 3 | 1 | 42.85714 | 42.857143 | 14.285714 |

#only include the percent of 1s

peep\_data = subset(master, mention.outliers == "Yes")  
table(peep\_data$peopleor.data.points)

##   
## both data points none found people   
## 0 27 114 13 303

##create a data frame of the percentages  
peep\_datasummary = table(peep\_data$peopleor.data.points, peep\_data$time.pulled, peep\_data$Type)  
peep\_datasummary = as.data.frame(peep\_datasummary)  
colnames(peep\_datasummary) = c("code", "time.pulled", "Type", "Freq")  
  
peep\_datapercent = group\_by(peep\_datasummary, time.pulled, Type) %>%  
 mutate(percent = Freq/sum(Freq)\*100)  
kable(peep\_datapercent)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| code | time.pulled | Type | Freq | percent |
|  | 2012 | Clinical | 0 | 0.000000 |
| both | 2012 | Clinical | 0 | 0.000000 |
| data points | 2012 | Clinical | 4 | 80.000000 |
| none found | 2012 | Clinical | 0 | 0.000000 |
| people | 2012 | Clinical | 1 | 20.000000 |
|  | 2017 | Clinical | 0 | 0.000000 |
| both | 2017 | Clinical | 0 | 0.000000 |
| data points | 2017 | Clinical | 2 | 33.333333 |
| none found | 2017 | Clinical | 1 | 16.666667 |
| people | 2017 | Clinical | 3 | 50.000000 |
|  | 2012 | Cognitive | 0 | 0.000000 |
| both | 2012 | Cognitive | 2 | 3.921569 |
| data points | 2012 | Cognitive | 23 | 45.098039 |
| none found | 2012 | Cognitive | 0 | 0.000000 |
| people | 2012 | Cognitive | 26 | 50.980392 |
|  | 2017 | Cognitive | 0 | 0.000000 |
| both | 2017 | Cognitive | 12 | 17.910448 |
| data points | 2017 | Cognitive | 19 | 28.358209 |
| none found | 2017 | Cognitive | 0 | 0.000000 |
| people | 2017 | Cognitive | 36 | 53.731343 |
|  | 2012 | Counseling | 0 | 0.000000 |
| both | 2012 | Counseling | 0 | 0.000000 |
| data points | 2012 | Counseling | 2 | 25.000000 |
| none found | 2012 | Counseling | 2 | 25.000000 |
| people | 2012 | Counseling | 4 | 50.000000 |
|  | 2017 | Counseling | 0 | 0.000000 |
| both | 2017 | Counseling | 0 | 0.000000 |
| data points | 2017 | Counseling | 1 | 6.250000 |
| none found | 2017 | Counseling | 2 | 12.500000 |
| people | 2017 | Counseling | 13 | 81.250000 |
|  | 2012 | Developmental | 0 | 0.000000 |
| both | 2012 | Developmental | 1 | 7.142857 |
| data points | 2012 | Developmental | 2 | 14.285714 |
| none found | 2012 | Developmental | 0 | 0.000000 |
| people | 2012 | Developmental | 11 | 78.571429 |
|  | 2017 | Developmental | 0 | 0.000000 |
| both | 2017 | Developmental | 0 | 0.000000 |
| data points | 2017 | Developmental | 5 | 23.809524 |
| none found | 2017 | Developmental | 1 | 4.761905 |
| people | 2017 | Developmental | 15 | 71.428571 |
|  | 2012 | Educational | 0 | 0.000000 |
| both | 2012 | Educational | 0 | 0.000000 |
| data points | 2012 | Educational | 1 | 20.000000 |
| none found | 2012 | Educational | 3 | 60.000000 |
| people | 2012 | Educational | 1 | 20.000000 |
|  | 2017 | Educational | 0 | 0.000000 |
| both | 2017 | Educational | 0 | 0.000000 |
| data points | 2017 | Educational | 4 | 57.142857 |
| none found | 2017 | Educational | 1 | 14.285714 |
| people | 2017 | Educational | 2 | 28.571429 |
|  | 2012 | Environmental | 0 | 0.000000 |
| both | 2012 | Environmental | 0 | 0.000000 |
| data points | 2012 | Environmental | 0 | 0.000000 |
| none found | 2012 | Environmental | 0 | 0.000000 |
| people | 2012 | Environmental | 7 | 100.000000 |
|  | 2017 | Environmental | 0 | 0.000000 |
| both | 2017 | Environmental | 0 | 0.000000 |
| data points | 2017 | Environmental | 1 | 14.285714 |
| none found | 2017 | Environmental | 0 | 0.000000 |
| people | 2017 | Environmental | 6 | 85.714286 |
|  | 2012 | Forensics | 0 | 0.000000 |
| both | 2012 | Forensics | 0 | 0.000000 |
| data points | 2012 | Forensics | 1 | 50.000000 |
| none found | 2012 | Forensics | 0 | 0.000000 |
| people | 2012 | Forensics | 1 | 50.000000 |
|  | 2017 | Forensics | 0 | 0.000000 |
| both | 2017 | Forensics | 0 | 0.000000 |
| data points | 2017 | Forensics | 1 | 7.692308 |
| none found | 2017 | Forensics | 0 | 0.000000 |
| people | 2017 | Forensics | 12 | 92.307692 |
|  | 2012 | IO | 0 | 0.000000 |
| both | 2012 | IO | 1 | 16.666667 |
| data points | 2012 | IO | 0 | 0.000000 |
| none found | 2012 | IO | 0 | 0.000000 |
| people | 2012 | IO | 5 | 83.333333 |
|  | 2017 | IO | 0 | 0.000000 |
| both | 2017 | IO | 0 | 0.000000 |
| data points | 2017 | IO | 2 | 8.695652 |
| none found | 2017 | IO | 0 | 0.000000 |
| people | 2017 | IO | 21 | 91.304348 |
|  | 2012 | Methods | 0 | 0.000000 |
| both | 2012 | Methods | 0 | 0.000000 |
| data points | 2012 | Methods | 1 | 11.111111 |
| none found | 2012 | Methods | 0 | 0.000000 |
| people | 2012 | Methods | 8 | 88.888889 |
|  | 2017 | Methods | 0 | 0.000000 |
| both | 2017 | Methods | 0 | 0.000000 |
| data points | 2017 | Methods | 3 | 42.857143 |
| none found | 2017 | Methods | 0 | 0.000000 |
| people | 2017 | Methods | 4 | 57.142857 |
|  | 2012 | Neuro | 0 | 0.000000 |
| both | 2012 | Neuro | 2 | 11.111111 |
| data points | 2012 | Neuro | 12 | 66.666667 |
| none found | 2012 | Neuro | 1 | 5.555556 |
| people | 2012 | Neuro | 3 | 16.666667 |
|  | 2017 | Neuro | 0 | 0.000000 |
| both | 2017 | Neuro | 0 | 0.000000 |
| data points | 2017 | Neuro | 7 | 70.000000 |
| none found | 2017 | Neuro | 1 | 10.000000 |
| people | 2017 | Neuro | 2 | 20.000000 |
|  | 2012 | Overview | 0 | 0.000000 |
| both | 2012 | Overview | 2 | 8.000000 |
| data points | 2012 | Overview | 10 | 40.000000 |
| none found | 2012 | Overview | 0 | 0.000000 |
| people | 2012 | Overview | 13 | 52.000000 |
|  | 2017 | Overview | 0 | 0.000000 |
| both | 2017 | Overview | 3 | 12.000000 |
| data points | 2017 | Overview | 8 | 32.000000 |
| none found | 2017 | Overview | 0 | 0.000000 |
| people | 2017 | Overview | 14 | 56.000000 |
|  | 2012 | Social | 0 | 0.000000 |
| both | 2012 | Social | 0 | 0.000000 |
| data points | 2012 | Social | 0 | 0.000000 |
| none found | 2012 | Social | 0 | 0.000000 |
| people | 2012 | Social | 16 | 100.000000 |
|  | 2017 | Social | 0 | 0.000000 |
| both | 2017 | Social | 4 | 5.128205 |
| data points | 2017 | Social | 4 | 5.128205 |
| none found | 2017 | Social | 0 | 0.000000 |
| people | 2017 | Social | 70 | 89.743590 |
|  | 2012 | Sports | 0 | 0.000000 |
| both | 2012 | Sports | 0 | 0.000000 |
| data points | 2012 | Sports | 0 | 0.000000 |
| none found | 2012 | Sports | 0 | 0.000000 |
| people | 2012 | Sports | 4 | 100.000000 |
|  | 2017 | Sports | 0 | 0.000000 |
| both | 2017 | Sports | 0 | 0.000000 |
| data points | 2017 | Sports | 1 | 14.285714 |
| none found | 2017 | Sports | 1 | 14.285714 |
| people | 2017 | Sports | 5 | 71.428571 |

##if they are doing basic statistics so equals 1 how many times do they mention outliers yes/no by year   
library(reshape)

##   
## Attaching package: 'reshape'

## The following object is masked from 'package:dplyr':  
##   
## rename

analyses = master[ , c(3, 4, 10, 20:26)]  
longanalyses = melt(analyses,  
 id = c("time.pulled", "Type", "mention.outliers"))  
colnames(longanalyses)[4:5] = c("analysis.type", "used")  
  
longanalyses = subset(longanalyses, used == 1)  
  
##create a data frame of the percentages  
analysessummary = table(longanalyses$mention.outliers, longanalyses$time.pulled, longanalyses$analysis.type)  
analysessummary = as.data.frame(analysessummary)  
colnames(analysessummary) = c("mention.outliers", "time.pulled", "analysis.type", "Freq")  
  
analysespercent = group\_by(analysessummary, time.pulled, analysis.type) %>%  
 mutate(percent = Freq/sum(Freq)\*100)  
  
graphdata = subset(analysespercent, mention.outliers == "Yes")  
  
#calculate CIs to add to graph  
graphdata$sample = as.data.frame(table(longanalyses$time.pulled, longanalyses$analysis.type))$Freq  
graphdata$SE = sqrt(graphdata$percent\*(100-graphdata$percent)/graphdata$sample)  
  
dotplot2 = ggplot(graphdata, aes(analysis.type, percent, color = time.pulled))  
finalgraph = dotplot2 +  
 geom\_pointrange(aes(ymin=percent-1.96\*SE, ymax=percent+1.96\*SE))+   
 cleanup +  
 xlab("Type of Analysis") +  
 ylab("Percent of Outlier Mentions") +   
 theme(axis.text.x = element\_text(angle = 60, hjust = 1)) +  
 scale\_color\_manual(name = "Year",   
 values = c("maroon", "gray")) +   
 coord\_cartesian(ylim = c(0,50))  
  
#tiff(filename = "analyses\_graph.tiff", res = 300, width = 6,   
# height = 6, units = 'in', compression = "lzw")  
#plot(finalgraph)  
#dev.off()