South Houston High School pre-inquiry- Analysis

Marwa El Awik

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```
library(tidyverse)
library(RColorBrewer)
library(plotly)
library(plyr)
library(gt)
library(stringr)
library(stringi)
library(leaflet)
remotes::install_github("chiouey/mapquestr")
```

About Dataset The dataset refers to 14 SUPERGirls from South Houston High School. It includes data collected from a pre-inquiry filled out by those Girls.

Looking ahead, of interest in this project will be to apply data preparation to be ready for further analysis, then to apply some EDA, to get all the information about our variable of interest, in addition to visualizing the data.

Here is a glimpse of what we will be working with.

```
data<- readr::read_csv("SOHO pre inquiry--Analysis.csv")
colnames(data)
```

```
##  [1] "Name of School"
##  [2] "Date"
##  [3] "Name of SUPERGirl"
##  [4] "Grade"
##  [5] "Confident Speaker with others"
##  [6] "Problem solver"
##  [7] "Work well with others"
##  [8] "Interact positively in public setting"
##  [9] "Confident in who I am"
## [10] "Ability to verbally communicate well"
## [11] "Can speak up to contribute ideas"
## [12] "Leader in group settings"
## [13] "STEM is fun"
## [14] "Sad feeling if it is the last class in STEM"
## [15] "Real interest in learning STEM"
## [16] "Like to persue STEM pathway"
```

```
summary(data)
```

```
##  Name of School         Date           Name of SUPERGirl     Grade
##  Length:14          Length:14          Length:14          Length:14
##  Class :character   Class :character   Class :character   Class :character
##  Mode  :character   Mode  :character   Mode  :character   Mode  :character
##
##
##
##  Confident Speaker with others Problem solver  Work well with others
##  Min.   :1.000                 Min.   :2.000   Min.   :3.000
##  1st Qu.:3.000                 1st Qu.:3.000   1st Qu.:3.000
##  Median :3.000                 Median :3.000   Median :3.500
##  Mean   :2.929                 Mean   :3.357   Mean   :3.571
##  3rd Qu.:3.000                 3rd Qu.:4.000   3rd Qu.:4.000
##  Max.   :5.000                 Max.   :5.000   Max.   :5.000
##  Interact positively in public setting Confident in who I am
##  Min.   :2.000                         Min.   :3.000
##  1st Qu.:3.250                         1st Qu.:3.000
##  Median :4.000                         Median :4.000
##  Mean   :3.786                         Mean   :3.821
##  3rd Qu.:4.000                         3rd Qu.:4.000
##  Max.   :5.000                         Max.   :5.000
##  Ability to verbally communicate well Can speak up to contribute ideas
##  Min.   :2.000                        Min.   :2.000
##  1st Qu.:3.000                        1st Qu.:3.000
##  Median :3.000                        Median :3.000
##  Mean   :3.357                        Mean   :3.143
##  3rd Qu.:4.000                        3rd Qu.:4.000
##  Max.   :5.000                        Max.   :4.000
##  Leader in group settings  STEM is fun
##  Min.   :1.000            Min.   :3.000
##  1st Qu.:2.000            1st Qu.:4.000
##  Median :2.000            Median :4.000
##  Mean   :2.786            Mean   :4.214
##  3rd Qu.:4.000            3rd Qu.:5.000
##  Max.   :5.000            Max.   :5.000
##  Sad feeling if it is the last class in STEM Real interest in learning STEM
##  Min.   :2.000                               Min.   :3.000
##  1st Qu.:3.000                               1st Qu.:4.000
##  Median :4.000                               Median :4.000
##  Mean   :3.714                               Mean   :4.214
##  3rd Qu.:4.000                               3rd Qu.:5.000
##  Max.   :5.000                               Max.   :5.000
##  Like to persue STEM pathway
##  Min.   :3.000
##  1st Qu.:4.000
##  Median :4.000
##  Mean   :4.214
##  3rd Qu.:5.000
##  Max.   :5.000
```

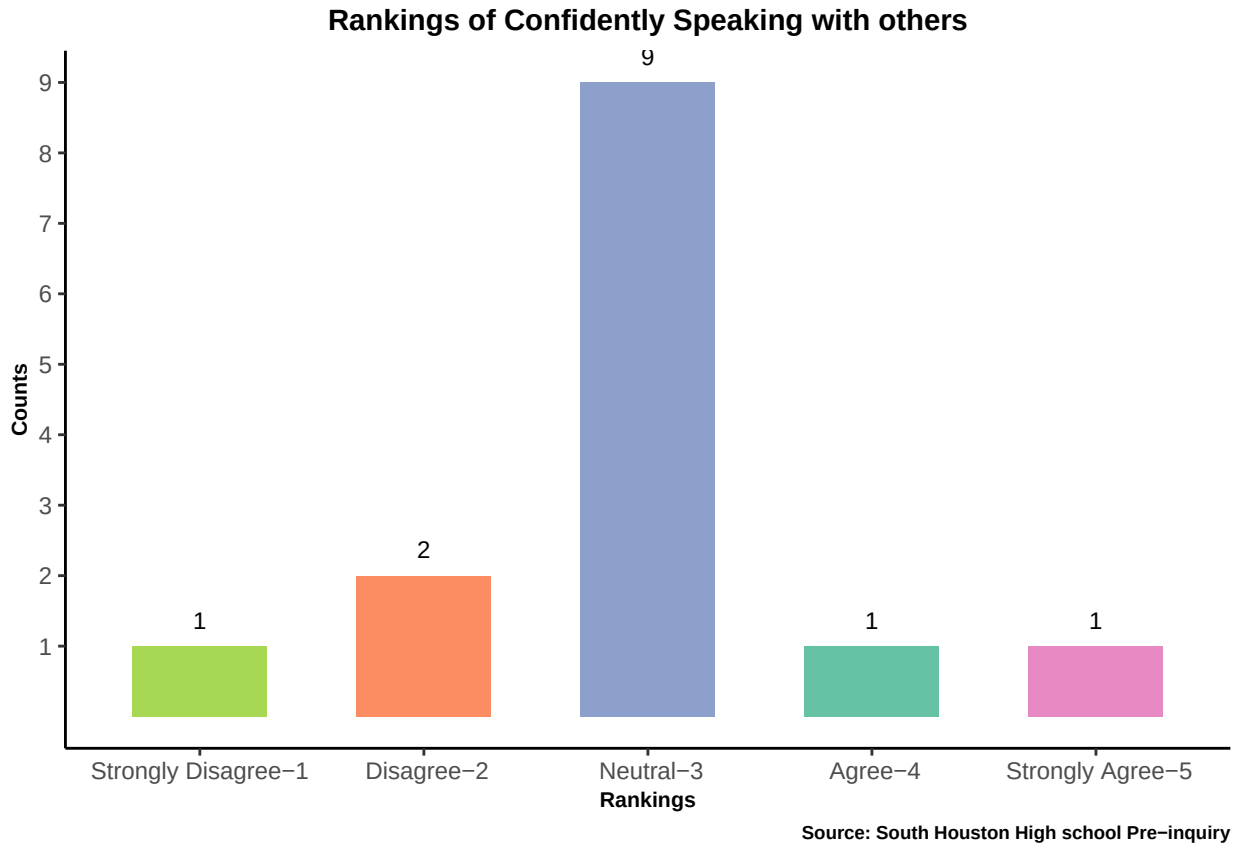
```r
School_counts<-count(data$`Name of School`)
names(School_counts)[1] <- 'Name of School'
School_counts
```

```
##     Name of School freq
## 1 South Houston HS   14
```

```r
Grade_counts<-count(data$Grade)
names(Grade_counts)[1] <- 'Grade'
Grade_counts
```

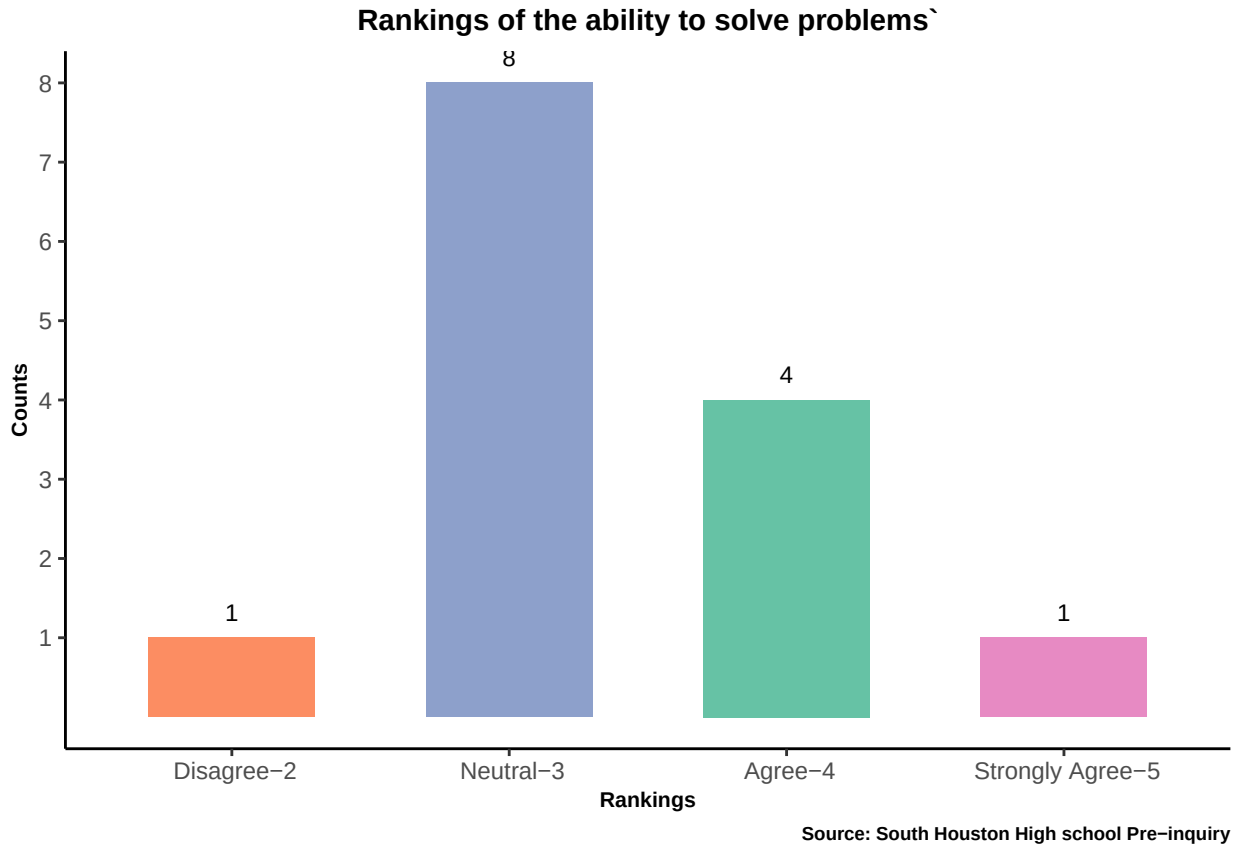
```
##   Grade freq
## 1  10th   14
```

```r
Confident_Speaker_counts<-count(data$`Confident Speaker with others`)
names(Confident_Speaker_counts)[1] <- 'Rankings of Confidently Speaking with others'

Confident_Speaker_counts$`Rankings of Confidently Speaking with others`[Confident_Speaker_counts$`Rankin

Confident_Speaker_counts$`Rankings of Confidently Speaking with others`[Confident_Speaker_counts$`Rankin

Confident_Speaker_counts$`Rankings of Confidently Speaking with others`[Confident_Speaker_counts$`Rankin

Confident_Speaker_counts$`Rankings of Confidently Speaking with others`[Confident_Speaker_counts$`Rankin

Confident_Speaker_counts$`Rankings of Confidently Speaking with others`[Confident_Speaker_counts$`Rankin


Ratings <- c("Strongly Disagree-1", " Disagree-2" , " Neutral-3" , " Agree-4" ," Strongly Agree-5")

colourCount = length(unique(Confident_Speaker_counts$`Rankings of Confidently Speaking with others`))
getPalette = colorRampPalette(brewer.pal(colourCount, "Set2"))
p1<-ggplot(Confident_Speaker_counts, aes(x= factor(Confident_Speaker_counts$`Rankings of Confidently Spe
                        text=paste("Confident in speaking with others:",Confident_Speaker_counts$`Ranking
                                   "<br>Count:",freq
                        )))+

  geom_bar(stat = 'identity',width = 0.6)+
  ggtitle("Rankings of Confidently Speaking with others") +
  scale_y_continuous(breaks=c(1,2,3,4,5,6,7,8,9,10,11,12,13,14))+
  theme_classic()+
  theme(legend.position="none")+
  labs(y="Counts",x="Rankings", caption = "Source: South Houston High school Pre-inquiry") +
  theme(title = element_text(size = 9, face = "bold"),
        plot.title = element_text(hjust = 0.5),
        axis.title.x = element_text(size = 8, face = "bold"),
        axis.title.y = element_text(size = 8, face = "bold"),
        legend.position="none",
        panel.grid.minor = element_blank())+
  geom_text(aes(label = signif(freq)),position=position_dodge(0.9),vjust = -1, size=3)

p1+scale_fill_manual(values = getPalette(colourCount))
```




```
Problem_solver_counts<-count(data$`Problem solver`)
names(Problem_solver_counts)[1] <- 'Rankings of Ability to solve problems'


Problem_solver_counts$`Rankings of Ability to solve problems`[Problem_solver_counts$`Rankings of Ability

Problem_solver_counts$`Rankings of Ability to solve problems`[Problem_solver_counts$`Rankings of Ability

Problem_solver_counts$`Rankings of Ability to solve problems`[Problem_solver_counts$`Rankings of Ability

Problem_solver_counts$`Rankings of Ability to solve problems`[Problem_solver_counts$`Rankings of Ability


Ratings <- c(" Disagree-2" , " Neutral-3" , " Agree-4" ," Strongly Agree-5")

colourCount = length(unique(Problem_solver_counts$`Rankings of Ability to solve problems`))
getPalette = colorRampPalette(brewer.pal(colourCount, "Set2"))
p1<-ggplot(Problem_solver_counts, aes(x= factor(Problem_solver_counts$`Rankings of Ability to solve prob
                        text=paste("Ability to solve problems:",Problem_solver_counts$`Rankings of Abili
                                   "<br>Count:",freq
                        )))+

  geom_bar(stat = 'identity',width = 0.6)+
  ggtitle("Rankings of the ability to solve problems`") +
  scale_y_continuous(breaks=c(1,2,3,4,5,6,7,8,9,10,11,12,13,14))+
  theme_classic()+
```

```
  theme(legend.position="none")+
  labs(y="Counts",x="Rankings", caption = "Source: South Houston High school Pre-inquiry") +
  theme(title = element_text(size = 9, face = "bold"),
        plot.title = element_text(hjust = 0.5),
        axis.title.x = element_text(size = 8, face = "bold"),
        axis.title.y = element_text(size = 8, face = "bold"),
        legend.position="none",
        panel.grid.minor = element_blank())+
  geom_text(aes(label = signif(freq)),position=position_dodge(0.9),vjust = -1, size=3)

p1+scale_fill_manual(values = getPalette(colourCount))
```




```
well_workers_counts<-count(data$`Work well with others`)
names(well_workers_counts)[1] <- 'Rankings of working well with others'



well_workers_counts$`Rankings of working well with others`[well_workers_counts$`Rankings of working wel

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well_workers_counts$`Rankings of working well with others`[well_workers_counts$`Rankings of working wel


Ratings <- c("Neutral-3", "Agree-4","Strongly Agree-5")
```
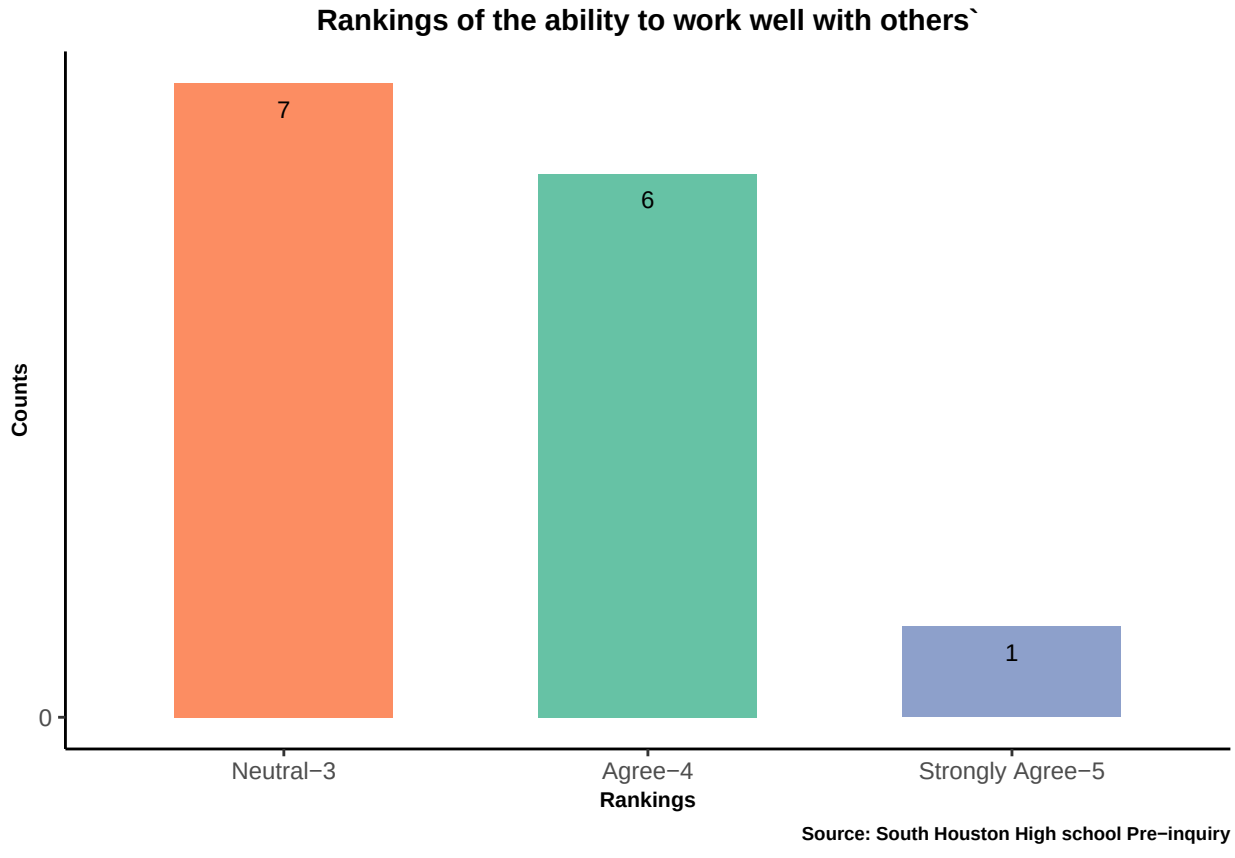
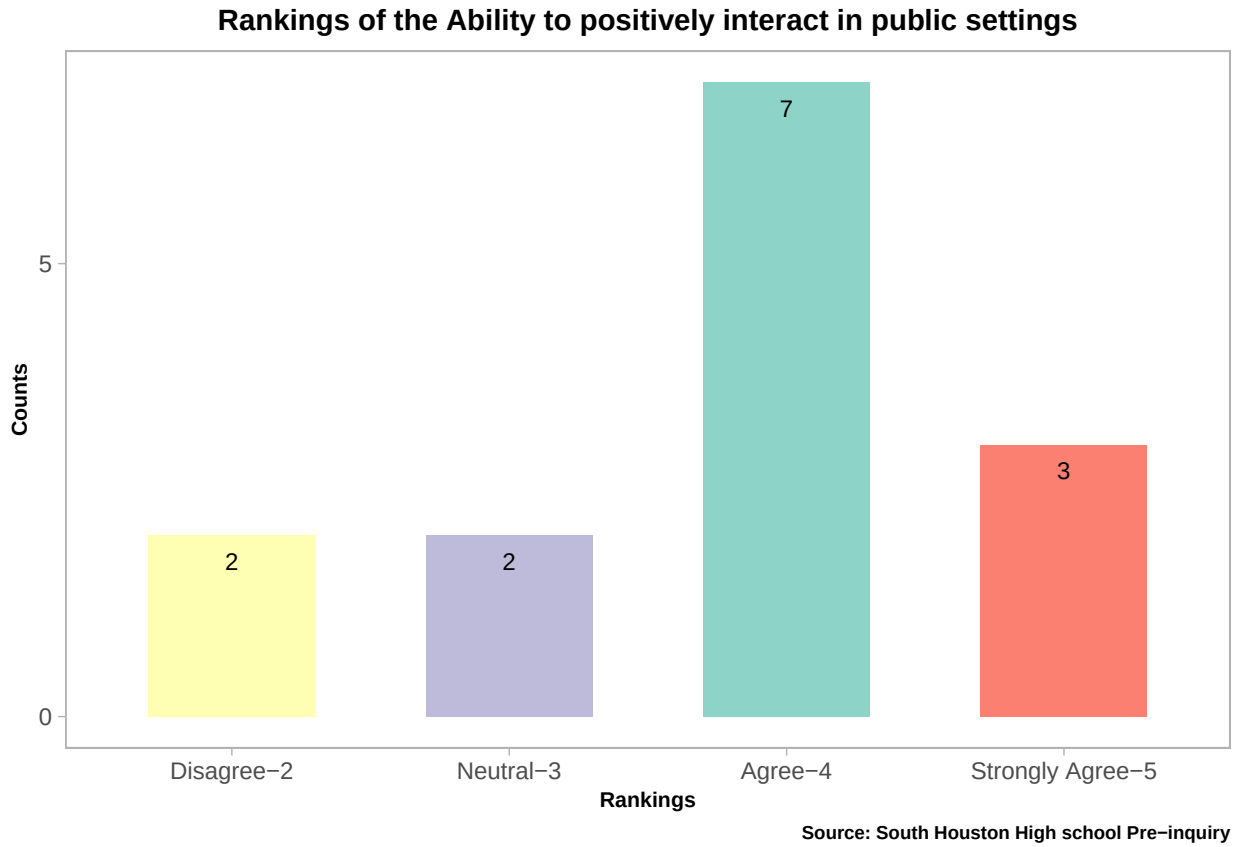

```
colourCount = length(unique(well_workers_counts$`Rankings of working well with others`))
getPalette = colorRampPalette(brewer.pal(colourCount, "Set2"))
p3<-ggplot(well_workers_counts, aes(x= factor(well_workers_counts$`Rankings of working well with others`
                        text=paste("Ability to work well with others:",well_workers_counts$`Rankings of w
                                   "<br>Count:",freq
                        )))+

  geom_bar(stat = 'identity',width = 0.6)+
  ggtitle("Rankings of the ability to work well with others`") +
  scale_y_continuous(breaks=c(0,10,20))+
  theme_classic()+
  theme(legend.position="none")+
  labs(y="Counts",x="Rankings", caption = "Source: South Houston High school Pre-inquiry") +
  theme(title = element_text(size = 9, face = "bold"),
        plot.title = element_text(hjust = 0.5),
        axis.title.x = element_text(size = 8, face = "bold"),
        axis.title.y = element_text(size = 8, face = "bold"),
        legend.position="none",
        panel.grid.minor = element_blank())+
  geom_text(aes(label = signif(freq)),position=position_dodge(0.9),vjust = 2, size=3)

p3+scale_fill_manual(values = getPalette(colourCount))
```

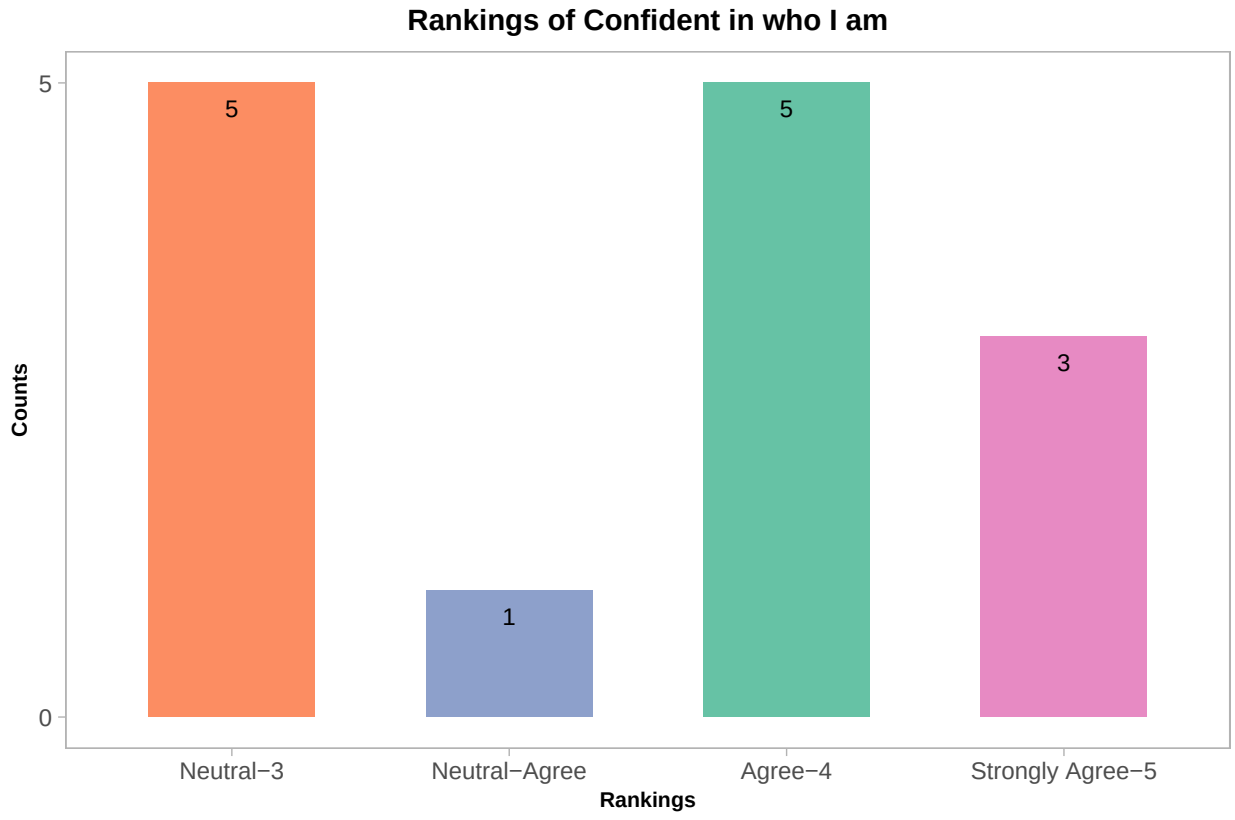


```
positive_interactors_counts<-count(data$`Interact positively in public setting`)
names(positive_interactors_counts)[1] <- 'Rankings of ability to positively interact in public'

positive_interactors_counts$`Rankings of ability to positively interact in public` [positive_interactors

positive_interactors_counts$`Rankings of ability to positively interact in public` [positive_interactors

positive_interactors_counts$`Rankings of ability to positively interact in public` [positive_interactors

positive_interactors_counts$`Rankings of ability to positively interact in public` [positive_interactors



Ratings <- c("Disagree-2","Neutral-3", "Agree-4","Strongly Agree-5")

colourCount = length(unique(positive_interactors_counts$`Rankings of ability to positively interact in p
getPalette = colorRampPalette(brewer.pal(colourCount, "Set3"))
p3<-ggplot(positive_interactors_counts, aes(x= factor(positive_interactors_counts$`Rankings of ability t
                        text=paste("Ability to to positively interact in public settings:",positive_inte
                                   "<br>Count:",freq
                        )))+

  geom_bar(stat = 'identity',width = 0.6)+
  ggtitle("Rankings of the Ability to positively interact in public settings") +
  scale_y_continuous(breaks=c(0,5,10))+
  theme_light()+
  theme(legend.position="none")+
  labs(y="Counts",x="Rankings", caption = "Source: South Houston High school Pre-inquiry") +
  theme(title = element_text(size = 9, face = "bold"),
        plot.title = element_text(hjust = 0.5),
        axis.title.x = element_text(size = 8, face = "bold"),
        axis.title.y = element_text(size = 8, face = "bold"),
        legend.position="none",
        panel.grid.major = element_blank(),
        panel.grid.minor = element_blank())+
  geom_text(aes(label = signif(freq)),position=position_dodge(0.9),vjust = 2, size=3)

p3+scale_fill_manual(values = getPalette(colourCount))
```



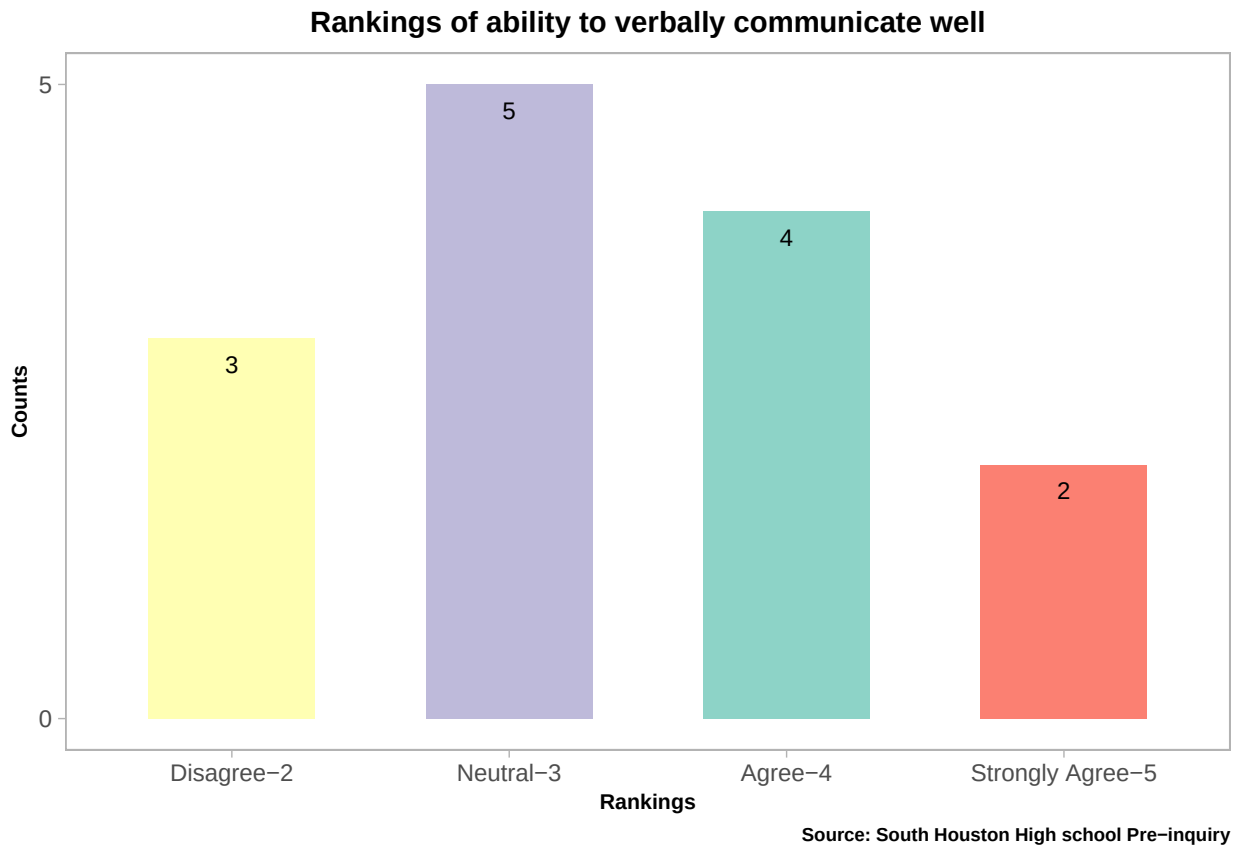

```
confidency_counts<-count(data$`Confident in who I am`)
names(confidency_counts)[1] <- 'Rankings of Confident in who I am'


confidency_counts$`Rankings of Confident in who I am` [confidency_counts$`Rankings of Confident in who

confidency_counts$`Rankings of Confident in who I am` [confidency_counts$`Rankings of Confident in who

confidency_counts$`Rankings of Confident in who I am` [confidency_counts$`Rankings of Confident in who

confidency_counts$`Rankings of Confident in who I am` [confidency_counts$`Rankings of Confident in who


Ratings <- c("Neutral-3","Neutral-Agree","Agree-4","Strongly Agree-5")

colourCount = length(unique(confidency_counts$`Rankings of Confident in who I am`))
getPalette = colorRampPalette(brewer.pal(colourCount, "Set2"))
p3<-ggplot(confidency_counts, aes(x= factor(confidency_counts$`Rankings of Confident in who I am`,Ratin
                      text=paste("Confident in who I am:",confidency_counts$`Rankings of Confident in
                                 "<br>Count:",freq
                      )))+

  geom_bar(stat = 'identity',width = 0.6)+
  ggtitle("Rankings of Confident in who I am") +
  scale_y_continuous(breaks=c(0,5,10))+
  theme_light()+
```

```
  theme(legend.position="none")+
  labs(y="Counts",x="Rankings", caption = "Source: South Houston High school Pre-inquiry") +
  theme(title = element_text(size = 9, face = "bold"),
        plot.title = element_text(hjust = 0.5),
        axis.title.x = element_text(size = 8, face = "bold"),
        axis.title.y = element_text(size = 8, face = "bold"),
        legend.position="none",
        panel.grid.major = element_blank(),
        panel.grid.minor = element_blank())+
  geom_text(aes(label = signif(freq)),position=position_dodge(0.9),vjust = 2, size=3)

p3+scale_fill_manual(values = getPalette(colourCount))
```

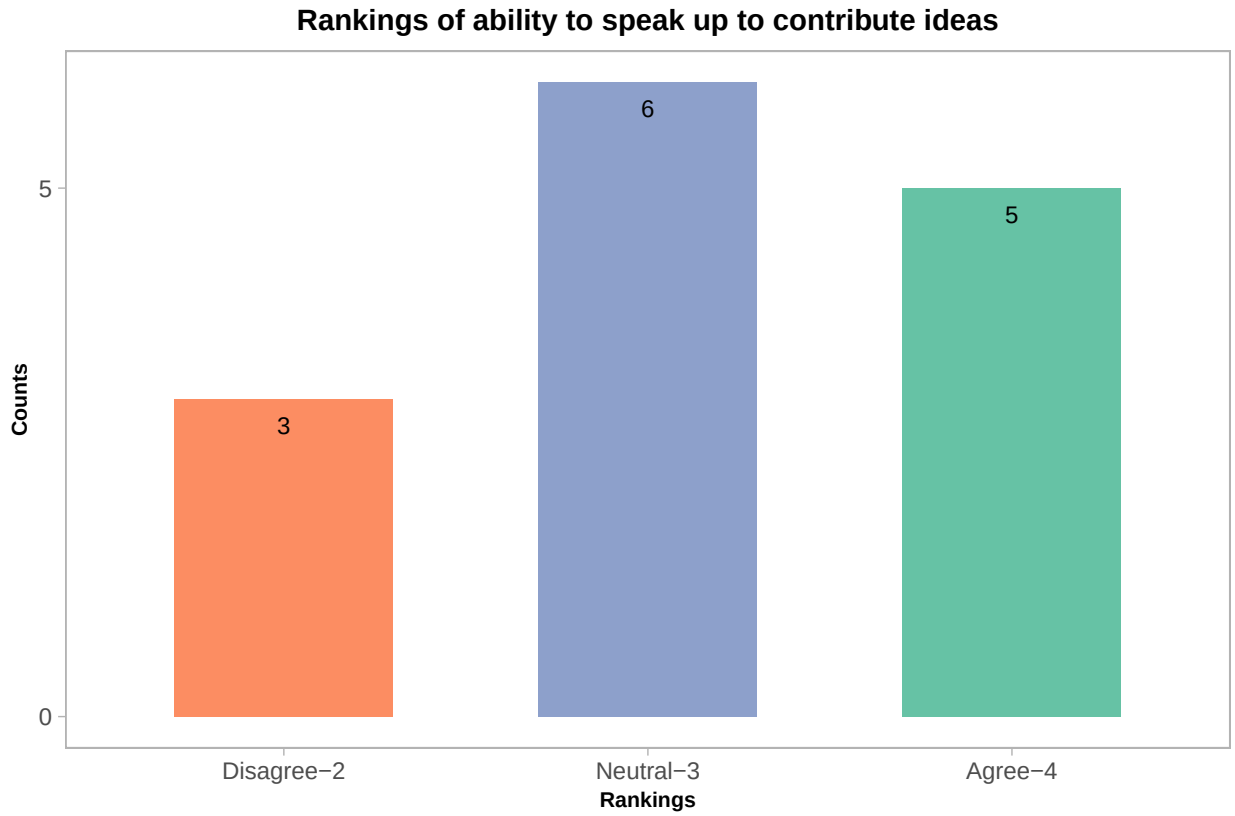



```
communication_counts<-count(data$`Ability to verbally communicate well`)
names(communication_counts)[1] <- 'Rankings of ability to verbally communicate well'


communication_counts$`Rankings of ability to verbally communicate well` [communication_counts$`Rankings

communication_counts$`Rankings of ability to verbally communicate well`[communication_counts$`Rankings

communication_counts$`Rankings of ability to verbally communicate well`[communication_counts$`Rankings

communication_counts$`Rankings of ability to verbally communicate well` [communication_counts$`Rankings
```

```
Ratings <- c("Disagree-2","Neutral-3","Agree-4","Strongly Agree-5")

colourCount = length(unique(communication_counts$`Rankings of ability to verbally communicate well` ))
getPalette = colorRampPalette(brewer.pal(colourCount, "Set3"))
p3<-ggplot(communication_counts, aes(x= factor(communication_counts$`Rankings of ability to verbally co
                        text=paste("Ability to verbally communicate well:",communication_counts$`Ranking
                                   "<br>Count:",freq
                        )))+

  geom_bar(stat = 'identity',width = 0.6)+
  ggtitle("Rankings of ability to verbally communicate well") +
  scale_y_continuous(breaks=c(0,5,10))+
  theme_light()+
  theme(legend.position="none")+
  labs(y="Counts",x="Rankings", caption = "Source: South Houston High school Pre-inquiry") +
  theme(title = element_text(size = 9, face = "bold"),
        plot.title = element_text(hjust = 0.5),
        axis.title.x = element_text(size = 8, face = "bold"),
        axis.title.y = element_text(size = 8, face = "bold"),
        legend.position="none",
        panel.grid.major = element_blank(),
        panel.grid.minor = element_blank())+
  geom_text(aes(label = signif(freq)),position=position_dodge(0.9),vjust = 2, size=3)

p3+scale_fill_manual(values = getPalette(colourCount))
```



```r
speakup_counts<-count(data$`Can speak up to contribute ideas`)
names(speakup_counts)[1] <- 'Rankings of ability to speak up to contribute ideas'

speakup_counts$`Rankings of ability to speak up to contribute ideas` [speakup_counts$`Rankings of abili

speakup_counts$`Rankings of ability to speak up to contribute ideas`[speakup_counts$`Rankings of abilit

speakup_counts$`Rankings of ability to speak up to contribute ideas`[speakup_counts$`Rankings of abilit


Ratings <- c("Disagree-2","Neutral-3","Agree-4")

colourCount = length(unique(speakup_counts$`Rankings of ability to speak up to contribute ideas` ))
getPalette = colorRampPalette(brewer.pal(colourCount, "Set2"))


p5<-ggplot(speakup_counts, aes(x= factor(speakup_counts$`Rankings of ability to speak up to contribute
                       text=paste("Ability to speak up to contribute ideas:",speakup_counts$`Rankings o
                                  "<br>Count:",freq
                       )))+

  geom_bar(stat = 'identity',width = 0.6)+
  ggtitle("Rankings of ability to speak up to contribute ideas") +
  scale_y_continuous(breaks=c(0,5,10))+
  theme_light()+
  theme(legend.position="none")+
  labs(y="Counts",x="Rankings", caption = "Source: South Houston High school Pre-inquiry") +
  theme(title = element_text(size = 9, face = "bold"),
        plot.title = element_text(hjust = 0.5),
        axis.title.x = element_text(size = 8, face = "bold"),
        axis.title.y = element_text(size = 8, face = "bold"),
        legend.position="none",
        panel.grid.major = element_blank(),
        panel.grid.minor = element_blank())+
  geom_text(aes(label = signif(freq)),position=position_dodge(0.9),vjust = 2, size=3)

p5+scale_fill_manual(values = getPalette(colourCount))
```




```
Leaders_counts<-count(data$`Leader in group settings`)
names(Leaders_counts)[1] <- 'Rankings of ability to lead in group settings'

Leaders_counts$`Rankings of ability to lead in group settings` [Leaders_counts$`Rankings of ability to l

Leaders_counts$`Rankings of ability to lead in group settings`[Leaders_counts$`Rankings of ability to le


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Leaders_counts$`Rankings of ability to lead in group settings` [Leaders_counts$`Rankings of ability to l


Ratings <- c("Strongly Disagree-1","Disagree-2","Neutral-3","Agree-4","Strongly Agree-5")

colourCount = length(unique(Leaders_counts$`Rankings of ability to lead in group settings`))
getPalette = colorRampPalette(brewer.pal(colourCount, "Set2"))
p3<-ggplot(Leaders_counts, aes(x= factor(Leaders_counts$`Rankings of ability to lead in group settings`
                       text=paste("Ability to lead in group settings:",Leaders_counts$`Rankings of abili
                                  "<br>Count:",freq
                       )))+

  geom_bar(stat = 'identity',width = 0.6)+
  ggtitle("Rankings of ability to lead in group settings") +
```
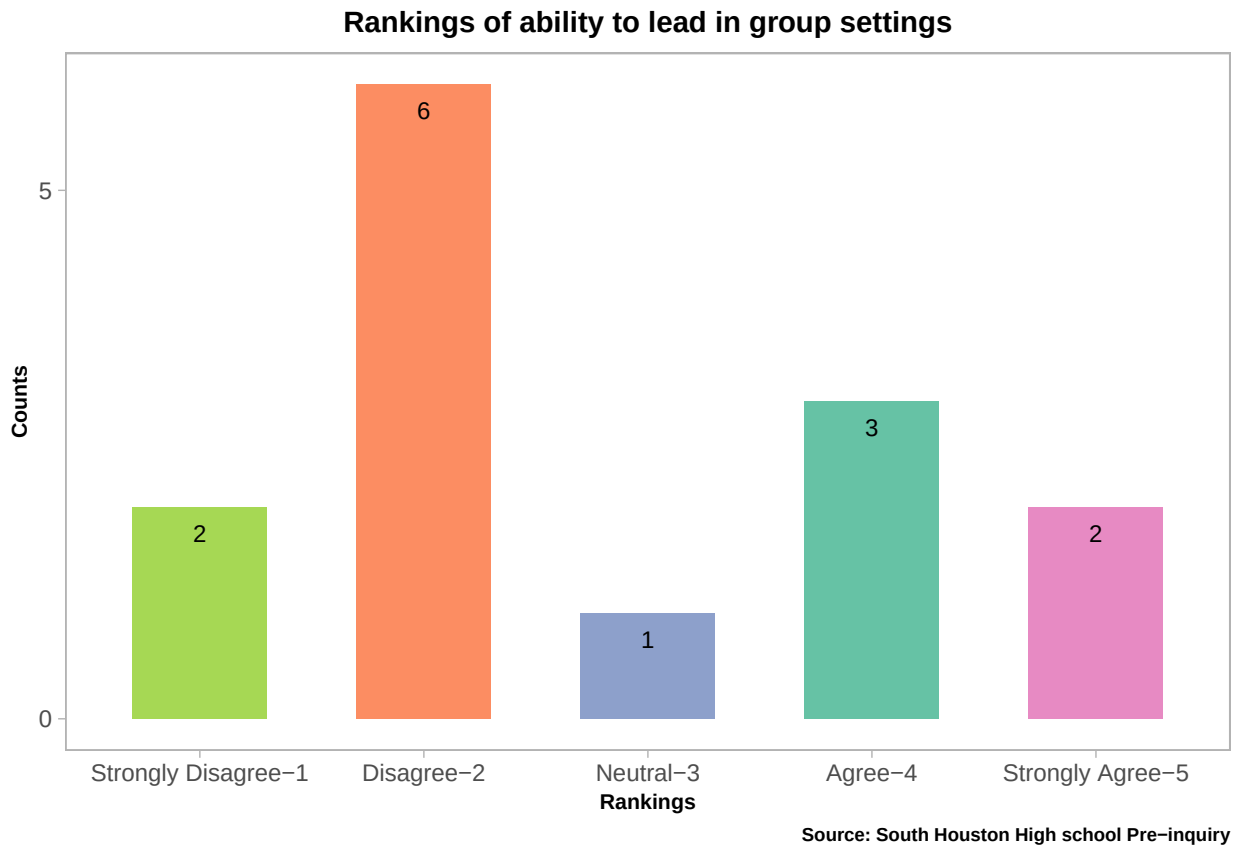
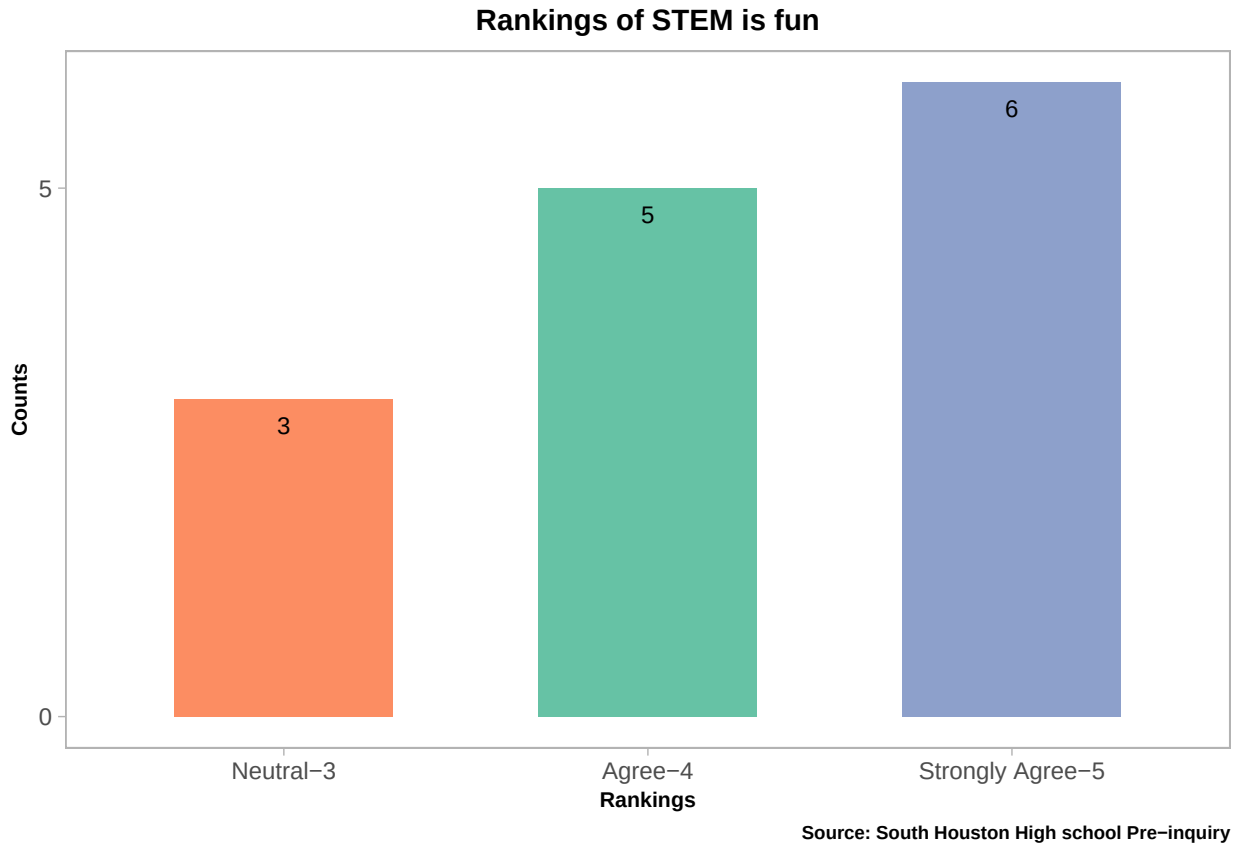

```
  scale_y_continuous(breaks=c(0,5,10))+
  theme_light()+
  theme(legend.position="none")+
  labs(y="Counts",x="Rankings", caption = "Source: South Houston High school Pre-inquiry") +
  theme(title = element_text(size = 9, face = "bold"),
        plot.title = element_text(hjust = 0.5),
        axis.title.x = element_text(size = 8, face = "bold"),
        axis.title.y = element_text(size = 8, face = "bold"),
        legend.position="none",
        panel.grid.major = element_blank(),
        panel.grid.minor = element_blank())+
  geom_text(aes(label = signif(freq)),position=position_dodge(0.9),vjust = 2, size=3)

p3+scale_fill_manual(values = getPalette(colourCount))
```

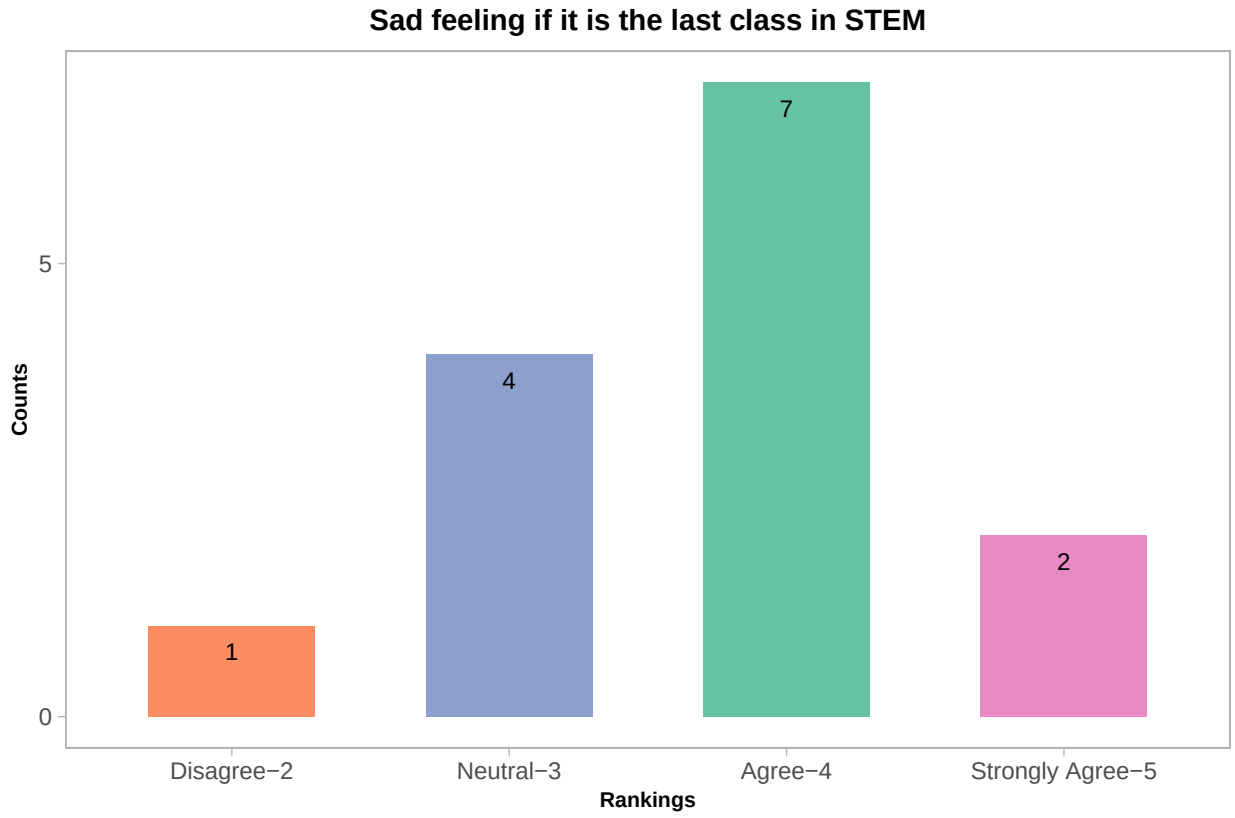



```
Fun_counts<-count(data$`STEM is fun`)
names(Fun_counts)[1] <- 'Rankings of STEM is fun'


Fun_counts$`Rankings of STEM is fun`[Fun_counts$`Rankings of STEM is fun`==3]<-"Neutral-3"

Fun_counts$`Rankings of STEM is fun`[Fun_counts$`Rankings of STEM is fun`==4]<-"Agree-4"

Fun_counts$`Rankings of STEM is fun` [Fun_counts$`Rankings of STEM is fun` ==5]<-"Strongly Agree-5"
```

```
Ratings <- c("Neutral-3","Agree-4","Strongly Agree-5")

colourCount = length(unique(Fun_counts$`Rankings of STEM is fun`))
getPalette = colorRampPalette(brewer.pal(colourCount, "Set2"))
p3<-ggplot(Fun_counts, aes(x= factor(Fun_counts$`Rankings of STEM is fun`,Ratings ) , y=freq, fill= Fun
                        text=paste("STEM is fun:",Fun_counts$`Rankings of STEM is fun`,
                                   "<br>Count:",freq
                        )))+

  geom_bar(stat = 'identity',width = 0.6)+
  ggtitle("Rankings of STEM is fun") +
  scale_y_continuous(breaks=c(0,5,10))+
  theme_light()+
  theme(legend.position="none")+
  labs(y="Counts",x="Rankings", caption = "Source: South Houston High school Pre-inquiry") +
  theme(title = element_text(size = 9, face = "bold"),
        plot.title = element_text(hjust = 0.5),
        axis.title.x = element_text(size = 8, face = "bold"),
        axis.title.y = element_text(size = 8, face = "bold"),
        legend.position="none",
        panel.grid.major = element_blank(),
        panel.grid.minor = element_blank())+
  geom_text(aes(label = signif(freq)),position=position_dodge(0.9),vjust = 2, size=3)

p3+scale_fill_manual(values = getPalette(colourCount))
```

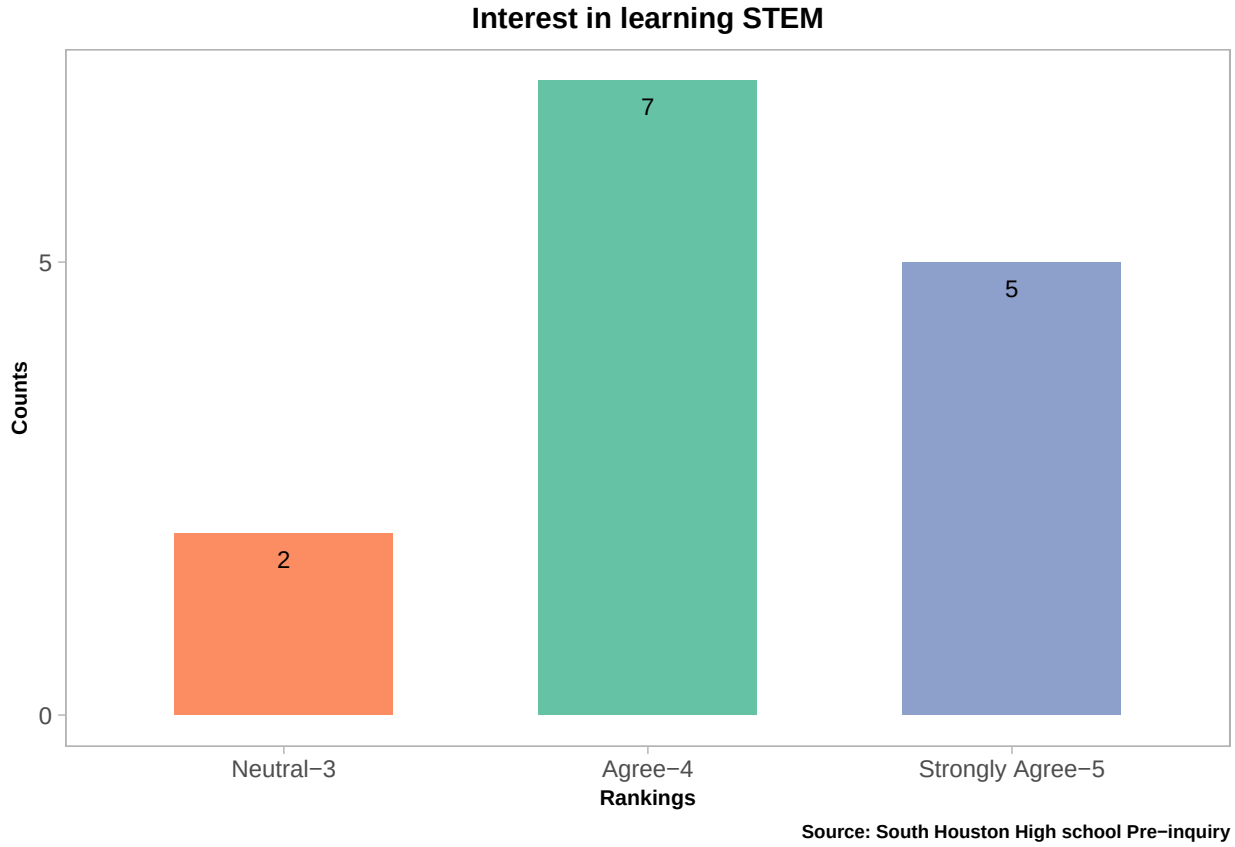


```r
Sad_counts<-count(data$`Sad feeling if it is the last class in STEM`)
names(Sad_counts)[1] <- 'Sad feeling if it is the last class'


Sad_counts$`Sad feeling if it is the last class`[Sad_counts$`Sad feeling if it is the last class`==2]<-

Sad_counts$`Sad feeling if it is the last class`[Sad_counts$`Sad feeling if it is the last class`==3]<-

Sad_counts$`Sad feeling if it is the last class`[Sad_counts$`Sad feeling if it is the last class`==4]<-

Sad_counts$`Sad feeling if it is the last class`[Sad_counts$`Sad feeling if it is the last class` ==5]<-


Ratings <- c("Disagree-2","Neutral-3","Agree-4","Strongly Agree-5")

colourCount = length(unique(Sad_counts$`Sad feeling if it is the last class`))
getPalette = colorRampPalette(brewer.pal(colourCount, "Set2"))
p3<-ggplot(Sad_counts, aes(x= factor(Sad_counts$`Sad feeling if it is the last class`,Ratings ) , y=freq
                       text=paste("Sad feeling if it is the last class:",Sad_counts$`Sad feeling if it i
                                  "<br>Count:",freq
                       )))+

  geom_bar(stat = 'identity',width = 0.6)+
  ggtitle("Sad feeling if it is the last class in STEM") +
  scale_y_continuous(breaks=c(0,5,10))+
  theme_light()+
  theme(legend.position="none")+
  labs(y="Counts",x="Rankings", caption = "Source: South Houston High school Pre-inquiry") +
  theme(title = element_text(size = 9, face = "bold"),
        plot.title = element_text(hjust = 0.5),
        axis.title.x = element_text(size = 8, face = "bold"),
        axis.title.y = element_text(size = 8, face = "bold"),
        legend.position="none",
        panel.grid.major = element_blank(),
        panel.grid.minor = element_blank())+
  geom_text(aes(label = signif(freq)),position=position_dodge(0.9),vjust = 2, size=3)

p3+scale_fill_manual(values = getPalette(colourCount))
```




```
Interest_counts<-count(data$`Real interest in learning STEM`)

names(Interest_counts)[1] <- 'Interest in learning STEM'


Interest_counts$`Interest in learning STEM`[Interest_counts$`Interest in learning STEM`==3]<-"Neutral-3

Interest_counts$`Interest in learning STEM`[Interest_counts$`Interest in learning STEM`==4]<-"Agree-4"

Interest_counts$`Interest in learning STEM`[Interest_counts$`Interest in learning STEM` ==5]<-"Strongly


Ratings <- c("Neutral-3","Agree-4","Strongly Agree-5")

colourCount = length(unique(Interest_counts$`Interest in learning STEM`))
getPalette = colorRampPalette(brewer.pal(colourCount, "Set2"))
p3<-ggplot(Interest_counts, aes(x= factor(Interest_counts$`Interest in learning STEM`,Ratings ) , y=freq
                        text=paste("Interest in learning STEM:",Interest_counts$`Interest in learning STE
                                   "<br>Count:",freq
                        )))+

  geom_bar(stat = 'identity',width = 0.6)+
  ggtitle("Interest in learning STEM") +
  scale_y_continuous(breaks=c(0,5,10))+
  theme_light()+
  theme(legend.position="none")+
```

```
  labs(y="Counts",x="Rankings", caption = "Source: South Houston High school Pre-inquiry") +
  theme(title = element_text(size = 9, face = "bold"),
        plot.title = element_text(hjust = 0.5),
        axis.title.x = element_text(size = 8, face = "bold"),
        axis.title.y = element_text(size = 8, face = "bold"),
        legend.position="none",
        panel.grid.major = element_blank(),
        panel.grid.minor = element_blank())+
  geom_text(aes(label = signif(freq)),position=position_dodge(0.9),vjust = 2, size=3)

p3+scale_fill_manual(values = getPalette(colourCount))
```




```
Pathway_counts<-count(data$`Like to persue STEM pathway`)
names(Pathway_counts)[1] <- 'Like to persue STEM pathway'

Pathway_counts$`Like to persue STEM pathway`[Pathway_counts$`Like to persue STEM pathway`==3]<-"Neutral

Pathway_counts$`Like to persue STEM pathway`[Pathway_counts$`Like to persue STEM pathway`==4]<-"Agree-4

Pathway_counts$`Like to persue STEM pathway`[Pathway_counts$`Like to persue STEM pathway` ==5]<-"Strongl


Ratings <- c("Neutral-3","Agree-4","Strongly Agree-5")

colourCount = length(unique(Pathway_counts$`Like to persue STEM pathway`))
```

```
getPalette = colorRampPalette(brewer.pal(colourCount, "Set2"))
p3<-ggplot(Pathway_counts, aes(x= factor(Pathway_counts$`Like to persue STEM pathway`,Ratings ) , y=freq
                        text=paste("Like to persue STEM pathway:",Pathway_counts$`Like to persue STEM pat
                                   "<br>Count:",freq
                        )))+

  geom_bar(stat = 'identity',width = 0.6)+
  ggtitle("Like to persue STEM pathway") +
  scale_y_continuous(breaks=c(0,5,10))+
  theme_light()+
  theme(legend.position="none")+
  labs(y="Counts",x="Rankings", caption = "Source: South Houston High school Pre-inquiry") +
  theme(title = element_text(size = 9, face = "bold"),
        plot.title = element_text(hjust = 0.5),
        axis.title.x = element_text(size = 8, face = "bold"),
        axis.title.y = element_text(size = 8, face = "bold"),
        legend.position="none",
        panel.grid.major = element_blank(),
        panel.grid.minor = element_blank())+
  geom_text(aes(label = signif(freq)),position=position_dodge(0.9),vjust = 2, size=3)

p3+scale_fill_manual(values = getPalette(colourCount))
```