Demographics on Messaging Platforms

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```
library(readr)
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
```

```
library(tidyr)
```

```
messRespon<-read.csv('C:/Users/User/Documents/Rstudio Files/midtermsurvey/FINAL EXCEL/RESPONDENTS.csv')
View(messRespon)
```

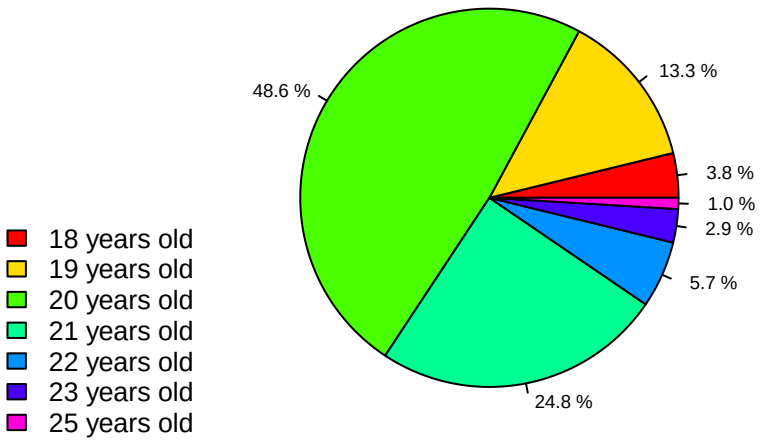
```
#GRAPHING DEMOGRAPHICS UTILIZED IN THE SURVEY

#ABOUT: This survey is about Messaging Applications Platforms in which it testifies the satisfaction, e

#DEMOGRAPHIC: Age
age_freq<-table(messRespon$Age)
age_freq
```

```
##
## 18 19 20 21 22 23 25
##  4 14 51 26  6  3  1
```

```
percentages <- round((age_freq / sum(age_freq)) * 100, 1)
pie(age_freq,
    main = "Respondents by Age",
    col = rainbow(length(age_freq)),
    labels = paste("", format(percentages, nsmall = 1, digits = 2), "%"),
    cex = 0.6,
)
legend_labels <- paste(names(age_freq), "years old")
legend("bottomleft", legend = legend_labels, bty = "n", cex = 0.8, fill = rainbow(length(age_freq)))
```

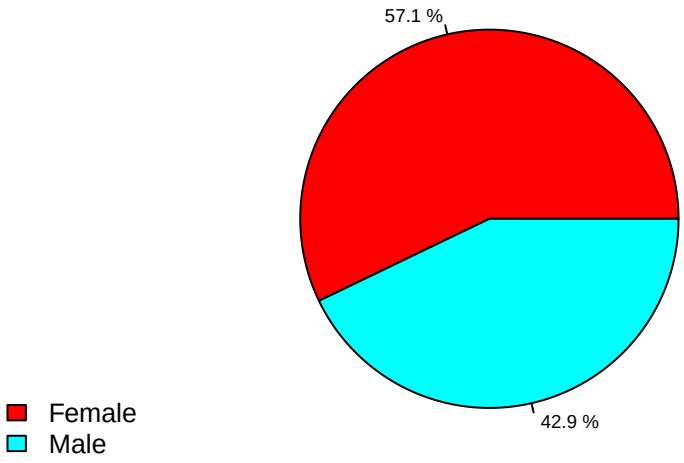



```
#INSIGHTS: Based on the graph, it shows that mostly ages 19-21 are our primary respondents in our survey
```

```
#DEMOGRAPHIC:Gender
gender_freq <- table(messRespon$Gender)
gender_freq
```

```
##
## Female   Male
##     60     45
```

```
percentages <- round((gender_freq / sum(gender_freq)) * 100, 1)
pie(gender_freq,
    main = "Respondents by Gender",
    col = rainbow(length(gender_freq)),
    labels = paste("", format(percentages, nsmall = 1, digits = 2), "%"),
    cex = 0.6,
)
legend_labels <- paste(names(gender_freq))
legend("bottomleft", legend = legend_labels, bty = "n", cex = 0.8, fill = rainbow(length(gender_freq)))
```

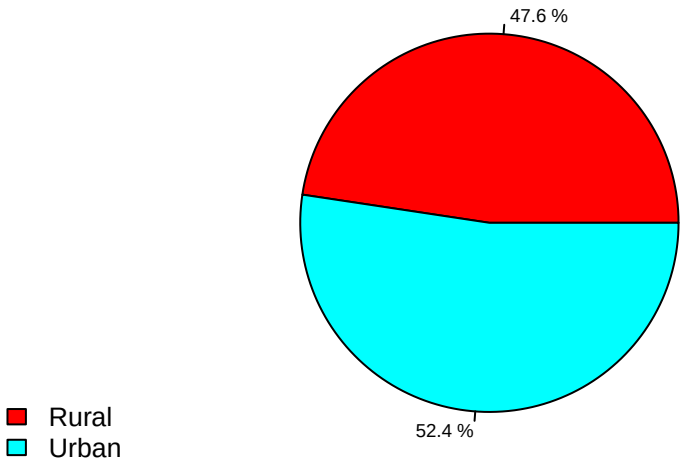



```
#INSIGHTS: Female respondents are our primary respondents for our survey.
```

```
#DEMOGRAPHIC:Type of Community
community_freq <- table(messRespon$Type.of.community)
community_freq
```

```
##
## Rural Urban
##    50    55
```

```
percentages <- round((community_freq / sum(community_freq)) * 100, 1)
pie(community_freq,
    main = "Respondents by Type of Community",
    col = rainbow(length(community_freq)),
    labels = paste("", format(percentages, nsmall = 1, digits = 2), "%"),
    cex = 0.6,
)
legend_labels <- paste(names(community_freq))
legend("bottomleft", legend = legend_labels, bty = "n", cex = 0.8, fill = rainbow(length(community_freq
```



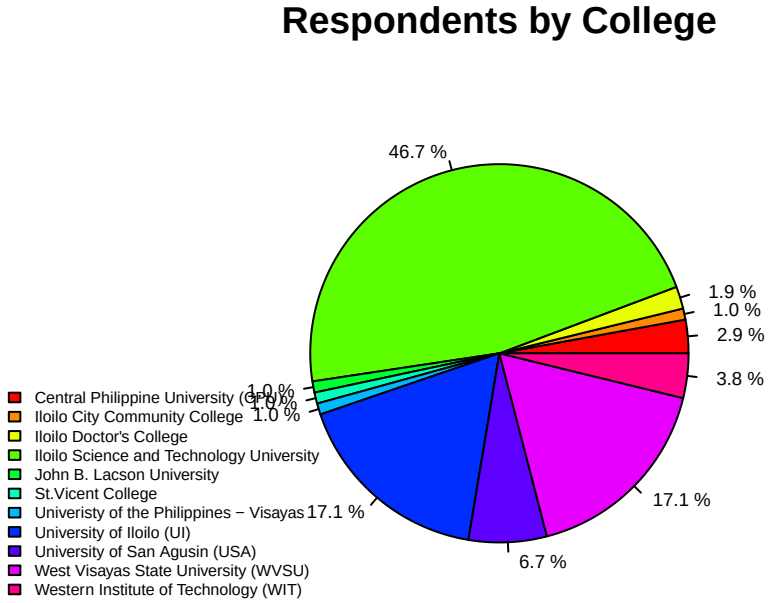

```
#INSIGHTS: Based on the graph, it shows that there are more than half of our respondents live in towns
```

```
#DEMOGRAPHIC:College
college_freq <- table(messRespon$College)
college_freq
```

```
##
##      Central Philippine University (CPU)
##                                        3
##            Iloilo City Community College
##                                        1
##                  Iloilo Doctor's College
##                                        2
## Iloilo Science and Technology University
##                                       49
##                John B. Lacson University
##                                        1
##                       St.Vicent College
##                                        1
##  Univeristy of the Philippines - Visayas
##                                        1
##                University of Iloilo (UI)
##                                       18
##           University of San Agusin (USA)
##                                        7
```

```
##     West Visayas State University (WVSU)
##                                      18
##    Western Institute of Technology (WIT)
##                                       4
```

```r
percentages <- round((college_freq / sum(college_freq)) * 100, 1)
pie(college_freq,
    main = "Respondents by College",
    col = rainbow(length(college_freq)),
    labels = paste("", format(percentages, nsmall = 1, digits = 2), "%"),
    cex = 0.6,
)
legend_labels <- paste(names(college_freq))
legend("bottomleft", legend = legend_labels, bty = "n", cex = 0.5, fill = rainbow(length(college_freq)))
```




```r
#INSIGHTS: Respondents from ISATU are our top respondents with 46.7%, and 17.1% with the tie of the per
```

```r
#DEMOGRAPHIC: Courses

corrected_courses <- tolower(messRespon$Course)

valid_courses <- c(
  "bachelor of science in information technology",
  "bachelor of science in architecture",
  "bachelor of science in civil engineering",
```

```
  "bachelor of elementary education major in physical science",
  "bachelor of science in information systems",
  "bachelor of science in industrial technology (bit) - level iii",
  "bachelor in human services",
  "bachelor of secondary education major in science",
  "bachelor of science in computer science",
  "bachelor in fashion design and merchandising (bsfdm) - level ii",
  "bachelor of science in nursing",
  "bachelor of science in business administration major in financial management",
  "bachelor of science in medical laboratory science",
  "bachelor of science in hospitality management",
  "bachelor of science in criminology",
  "bachelor of science in economics",
  "bachelor of science in biology with specialization in microbiology",
  "bachelor of science in forestry",
  "bachelor of science in marine engineering",
  "bachelor of science in business administration",
  "bachelor of art in english language studies",
  "bachelor of science in accountancy",
  "bachelor of library and information science",
  "bachelor of science in development communication",
  "bachelor of secondary major in english",
  "bachelor of science in office administration",
  "bachelor of science in pharmacy"
)

corrected_courses <- sapply(corrected_courses, function(course) {
  closest_match <- valid_courses[agrep(tolower(course), tolower(valid_courses), ignore.case = TRUE, max
  if (length(closest_match) == 0) {
    course
  } else {
    closest_match[1]
  }
})

corrected_courses
```

```
##                                   bachelor of science in information technology
##                                  "bachelor of science in information technology"
##                                   bachelor of science in information technology
##                                  "bachelor of science in information technology"
##                                              bachelor of science in architecture
##                                             "bachelor of science in architecture"
##                                   bachelor of science in information technology
##                                  "bachelor of science in information technology"
##                                         bachelor of science in civil engineering
##                                        "bachelor of science in civil engineering"
##                                   bachelor of science in information technology
##                                  "bachelor of science in information technology"
##                                         bachelor of science in civil engineering
##                                        "bachelor of science in civil engineering"
##                                   bachelor of science in information technology
##                                  "bachelor of science in information technology"
```

```
##                                        bachelor of science in civil engineering
##                                      "bachelor of science in civil engineering"
##                     bachelor of elementary education major in physical science
##                   "bachelor of elementary education major in physical science"
##                                   bachelor of science in information technology
##                                 "bachelor of science in information technology"
##                                             bachelor of science in architecture
##                                           "bachelor of science in architecture"
##                                   bachelor of science in information technology
##                                 "bachelor of science in information technology"
##                                        bachelor of science in civil engineering
##                                      "bachelor of science in civil engineering"
##                                   bachelor of science in information technology
##                                 "bachelor of science in information technology"
##                                      bachelor of science in information systems
##                                 "bachelor of science in information technology"
##                                   bachelor of science in information technology
##                                 "bachelor of science in information technology"
##                                   bachelor of science in information technology
##                                 "bachelor of science in information technology"
##                  bachelor of science in industrial technology (bit) - level iii
##                "bachelor of science in industrial technology (bit) - level iii"
##                                   bachelor of science in information technology
##                                 "bachelor of science in information technology"
##                                   bachelor of science in information technology
##                                 "bachelor of science in information technology"
##                  bachelor of science in industrial technology (bit) - level iii
##                "bachelor of science in industrial technology (bit) - level iii"
##                                      bachelor of science in information systems
##                                 "bachelor of science in information technology"
##                                                bachelor of elementary education
##                   "bachelor of elementary education major in physical science"
##                                   bachelor of science in information technology
##                                 "bachelor of science in information technology"
##                                             bachelor of science in architecture
##                                           "bachelor of science in architecture"
##                                   bachelor of science in information technology
##                                 "bachelor of science in information technology"
##                                   bachelor of science in information technology
##                                 "bachelor of science in information technology"
##                                   bachelor of science in information technology
##                                 "bachelor of science in information technology"
##                                   bachelor of science in information technology
##                                 "bachelor of science in information technology"
##                                   bachelor of science in information technology
##                                 "bachelor of science in information technology"
##                                   bachelor of science in information technology
##                                 "bachelor of science in information technology"
##                                   bachelor of science in information technology
##                                 "bachelor of science in information technology"
##                                   bachelor of science in information technology
##                                 "bachelor of science in information technology"
##                                   bachelor of science in information technology
##                                 "bachelor of science in information technology"
```

```
##                                   bachelor of science in information technology
##                                  "bachelor of science in information technology"
##                                   bachelor of science in information technology
##                                  "bachelor of science in information technology"
##                                                       bachelor in human services
##                                                      "bachelor in human services"
##                                   bachelor of science in information technology
##                                  "bachelor of science in information technology"
##                                   bachelor of science in information technology
##                                  "bachelor of science in information technology"
##                                         bachelor of science in civil engineering
##                                        "bachelor of science in civil engineering"
##                                         bachelor of science in civil engineering
##                                        "bachelor of science in civil engineering"
##                                 bachelor of secondary education major in science
##                                "bachelor of secondary education major in science"
##                                           bachelor of science in computer science
##                                          "bachelor of science in computer science"
##                                 bachelor of secondary education major in science
##                                "bachelor of secondary education major in science"
##                                     bachelor of science in information technology
##                                    "bachelor of science in information technology"
##                                 bachelor of secondary education major in science
##                                "bachelor of secondary education major in science"
##                   bachelor in fashion design and merchadizing (bsfdm) - level ii
##                "bachelor in fashion design and merchandising (bsfdm) - level ii"
##                                   bachelor of science in information technology
##                                  "bachelor of science in information technology"
##                                   bachelor of science in information technology
##                                  "bachelor of science in information technology"
##                                                     bachelor of science in nursing
##                                                    "bachelor of science in nursing"
##                                                     bachelor of science in nursing
##                                                    "bachelor of science in nursing"
##                                                     bachelor of science in nursing
##                                                    "bachelor of science in nursing"
##                                                     bachelor of science in nursing
##                                                    "bachelor of science in nursing"
##  bachelor of science in business administration major in financial management
## "bachelor of science in business administration major in financial management"
##  bachelor of science in business administration major in financial management
## "bachelor of science in business administration major in financial management"
##  bachelor of science in business administration major in financial management
## "bachelor of science in business administration major in financial management"
##                                  bachelor of science in medical laboratory science
##                                 "bachelor of science in medical laboratory science"
##                                       bachelor of science in hospitaliyy management
##                                    "bachelor of science in hospitality management"
##                                       bachelor of science in radiologic technology
##                                     "bachelor of science in radiologic technology"
##                                      bachelor of science in hospitality management
##                                    "bachelor of science in hospitality management"
##                                     bachelor of science in hospitality management
##                                    "bachelor of science in hospitality management"
```

```
##                                              bachelor of science in criminology
##                                             "bachelor of science in criminology"
##                                   bachelor of science in hospitality management
##                                  "bachelor of science in hospitality management"
##                                              bachelor of science in criminology
##                                             "bachelor of science in criminology"
##                                    bachelor of science in hospitality management
##                                   "bachelor of science in hospitality management"
##                                                 bachelor of science in nursing
##                                                "bachelor of science in nursing"
##                                                  bachelor of science in nursing
##                                                "bachelor of science in nursing"
##                                         bachelor of science in civil engineering
##                                        "bachelor of science in civil engineering"
##                                         bachelor of science in civil engineering
##                                        "bachelor of science in civil engineering"
##                                                   bachelor of science in nursing
##                                                "bachelor of science in nursing"
##                                   bachelor of science in information technology
##                                  "bachelor of science in information technology"
##                                    bachelor of science in information technology
##                                  "bachelor of science in information technology"
##                                    bachelor of science in information technology
##                                  "bachelor of science in information technology"
##                                                 bachelor of science in economics
##                                               "bachelor of science in economics"
##                                                 bachelor of elementary education
##                     "bachelor of elementary education major in physical science"
##              bachelor of science in biology with specialization in microbiology
##            "bachelor of science in biology with specialization in microbiology"
##                                                  bachelor of science in forestry
##                                                "bachelor of science in forestry"
##                                       bachelor of science in marine engineering
##                                      "bachelor of science in marine engineering"
##                                    bachelor of science in business administration
## "bachelor of science in business administration major in financial management"
##                                       bachelor of art in english language studies
##                                     "bachelor of art in english language studies"
##                                                 bachelor of science in accountancy
##                                               "bachelor of science in accountancy"
##                                    bachelor of science in information technology
##                                   "bachelor of science in information technology"
##                                       bachelor of library and information science
##                                     "bachelor of library and information science"
##      bachelor of science in business admiration major in operations management
##    "bachelor of science in business admiration major in operations management"
##                                        bachelor of science in civil engineering
##                                       "bachelor of science in civil engineering"
##                                  bachelor of science in development communication
##                                 "bachelor of science in development communication"
##                                       bachelor of library and information science
##                                     "bachelor of library and information science"
##                                             bachelor of secondary major in english
##                                           "bachelor of secondary major in english"
```

```
##                                bachelor of secondary education major in english
##                               "bachelor of secondary education major in english"
##                                    bachelor of science in hospitality management
##                                   "bachelor of science in hospitality management"
##                                      bachelor of science in office administration
##                                     "bachelor of science in office administration"
##                                     bachelor of science in hospitality management
##                                    "bachelor of science in hospitality management"
##                                  bachelor of science in medical laboratory science
##                                 "bachelor of science in medical laboratory science"
##                                                      bachelor of science in accountancy
##                                                     "bachelor of science in accountancy"
##                                                      bachelor of science in accountancy
##                                                     "bachelor of science in accountancy"
##                                                      bachelor of science in accountancy
##                                                     "bachelor of science in accountancy"
##                                                      bachelor of science in accountancy
##                                                     "bachelor of science in accountancy"
##                                                      bachelor of science in accountancy
##                                                     "bachelor of science in accountancy"
##                                                       bachelor of science in accountancy
##                                                     "bachelor of science in accountancy"
##                                                      bachelor of science in accountancy
##                                                     "bachelor of science in accountancy"
##                                                      bachelor of science in accountancy
##                                                     "bachelor of science in accountancy"
##                                                       bachelor of science in accountancy
##                                                     "bachelor of science in accountancy"
##                                                          bachelor of science in pharmacy
##                                                        "bachelor of science in pharmacy"
```

```
course_freq <- table(corrected_courses)
course_freq
```

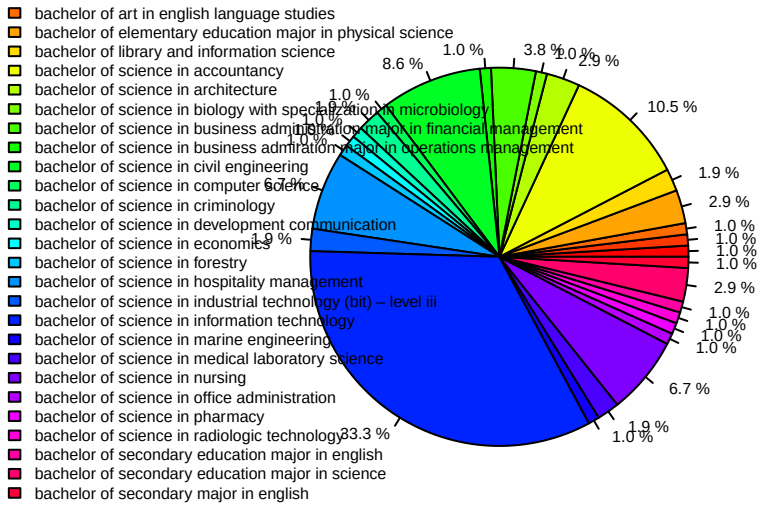
```
## corrected_courses
##              bachelor in fashion design and merchandising (bsfdm) - level ii
##                                                                            1
##                                                    bachelor in human services
##                                                                            1
##                                    bachelor of art in english language studies
##                                                                            1
##                   bachelor of elementary education major in physical science
##                                                                            3
##                                    bachelor of library and information science
##                                                                            2
##                                             bachelor of science in accountancy
##                                                                           11
##                                           bachelor of science in architecture
##                                                                            3
##           bachelor of science in biology with specialization in microbiology
##                                                                            1
## bachelor of science in business administration major in financial management
```

```
##                                                                     4
##    bachelor of science in business admiration major in operations management
##                                                                     1
##                                      bachelor of science in civil engineering
##                                                                     9
##                                       bachelor of science in computer science
##                                                                     1
##                                            bachelor of science in criminology
##                                                                     2
##                                bachelor of science in development communication
##                                                                     1
##                                              bachelor of science in economics
##                                                                     1
##                                               bachelor of science in forestry
##                                                                     1
##                                  bachelor of science in hospitality management
##                                                                     7
##               bachelor of science in industrial technology (bit) - level iii
##                                                                     2
##                                  bachelor of science in information technology
##                                                                    35
##                                     bachelor of science in marine engineering
##                                                                     1
##                                bachelor of science in medical laboratory science
##                                                                     2
##                                                bachelor of science in nursing
##                                                                     7
##                                   bachelor of science in office administration
##                                                                     1
##                                               bachelor of science in pharmacy
##                                                                     1
##                                   bachelor of science in radiologic technology
##                                                                     1
##                                bachelor of secondary education major in english
##                                                                     1
##                                bachelor of secondary education major in science
##                                                                     3
##                                         bachelor of secondary major in english
##                                                                     1
```

```r
percentages <- round((course_freq / sum(course_freq)) * 100, 1)

pie(course_freq,
    main = "Respondents by Courses",
    col = rainbow(length(course_freq)),
    labels = paste("", format(percentages, nsmall = 1, digits = 2), "%"),
    cex = 0.5,
)
legend_labels <- paste(names(course_freq))
legend("bottomleft", legend = legend_labels, bty = "n", cex = 0.5, fill = rainbow(length(course_freq)))
```

Respondents by Courses




```
#INSIGHTS: Respondents from course Bachelor of Science in Information Technology (BSIT) most answered o
```

```
#DEMOGRAPHIC:By Year Level
yearlvl_freq <- table(messRespon$Year.Level)
yearlvl_freq
```

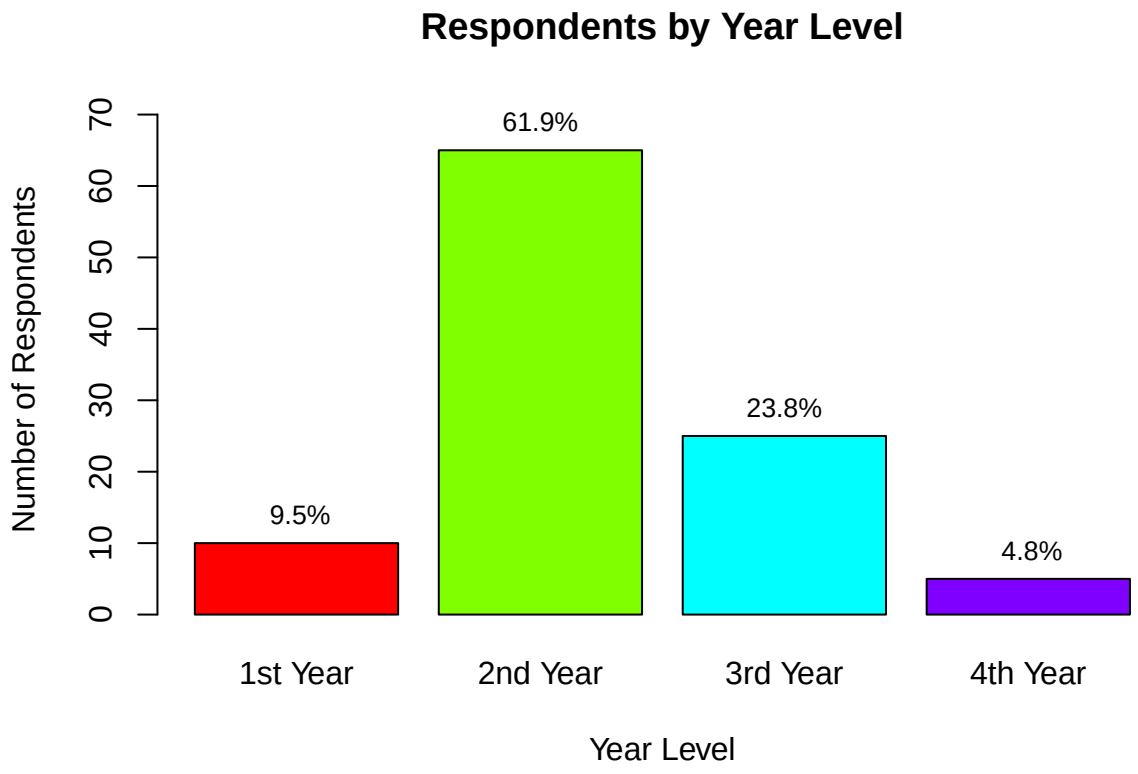
```
##
## 1st  Year  1st Year  2nd Year  3rd Year  4th Year
##         5         5        65        25         5
```

```
yearlvl_freq["1st Year"] <- yearlvl_freq["1st Year"] + yearlvl_freq["1st  Year"]
yearlvl_freq <- yearlvl_freq[!names(yearlvl_freq) %in% "1st  Year"]

percentages <- round((yearlvl_freq / sum(yearlvl_freq)) * 100, 1)


barplot(as.vector(yearlvl_freq),
        main = "Respondents by Year Level",
        col = rainbow(length(yearlvl_freq)),
        xlab = "Year Level",
        ylab = "Number of Respondents",
        ylim = c(0, max(yearlvl_freq) * 1.1),
        names.arg = names(yearlvl_freq))
```

```
text(x = barplot(as.vector(yearlvl_freq), plot = FALSE),
     y = yearlvl_freq,
     label = paste0(format(percentages, nsmall = 1, digits = 2), "%"),
     pos = 3, cex = 0.8)
```

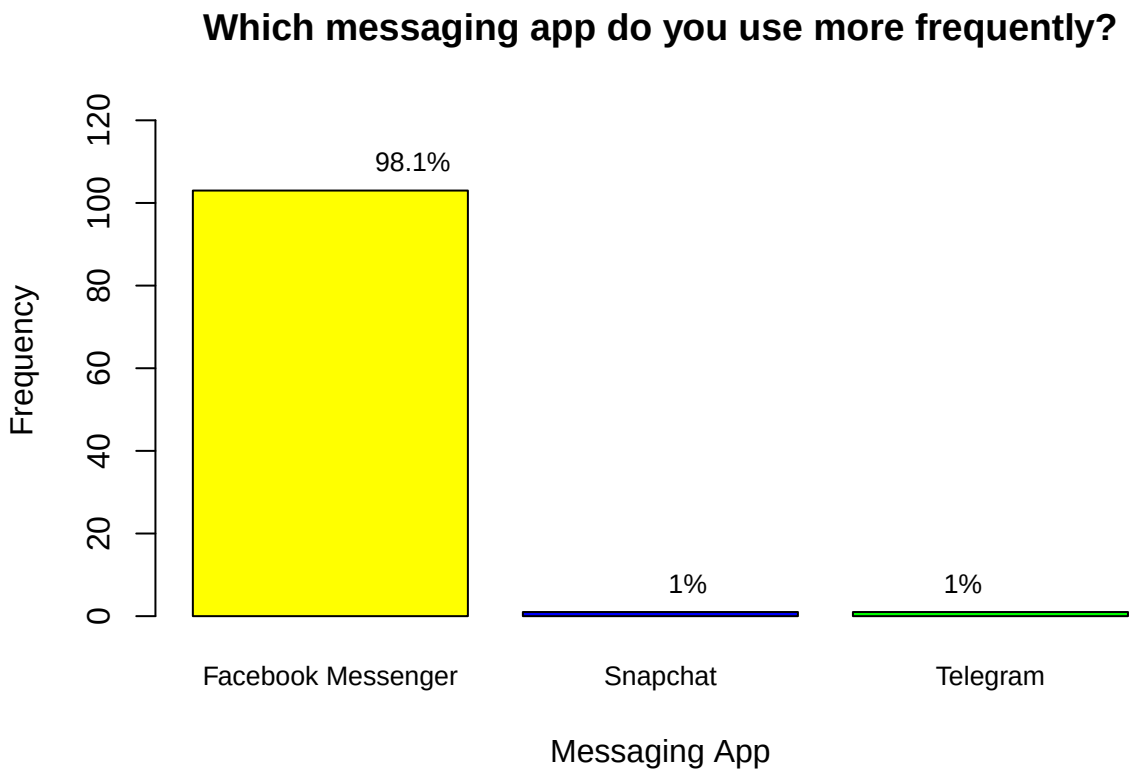



```
#INSIGHTS: Mostly from 2nd year level answered our survey with a percentage of 61.9%, approximately 64
```

```
#DEMOGRAPHIC:Application used in messaging
messagingapp_freq <- table(messRespon$Which.messaging.app.do.you.use.most.frequently.)
percentages <- round((messagingapp_freq / sum(messagingapp_freq)) * 100, 1)


barplot(messagingapp_freq,
        main = "Which messaging app do you use more frequently?",
        col = c("yellow", "blue", "green"),
        names.arg = names(messagingapp_freq),
        ylim = c(0, max(messagingapp_freq) * 1.2),
        xlab = "Messaging App",
        ylab = "Frequency",
        cex.names = 0.8
)


text(x = 1:length(messagingapp_freq), y = messagingapp_freq, labels = paste0(percentages, "%"), pos = 3
```




```
#INSIGHTS: Only one respondent used Telegram and also for the Snapchat. The rest used Facebook Messenge
```

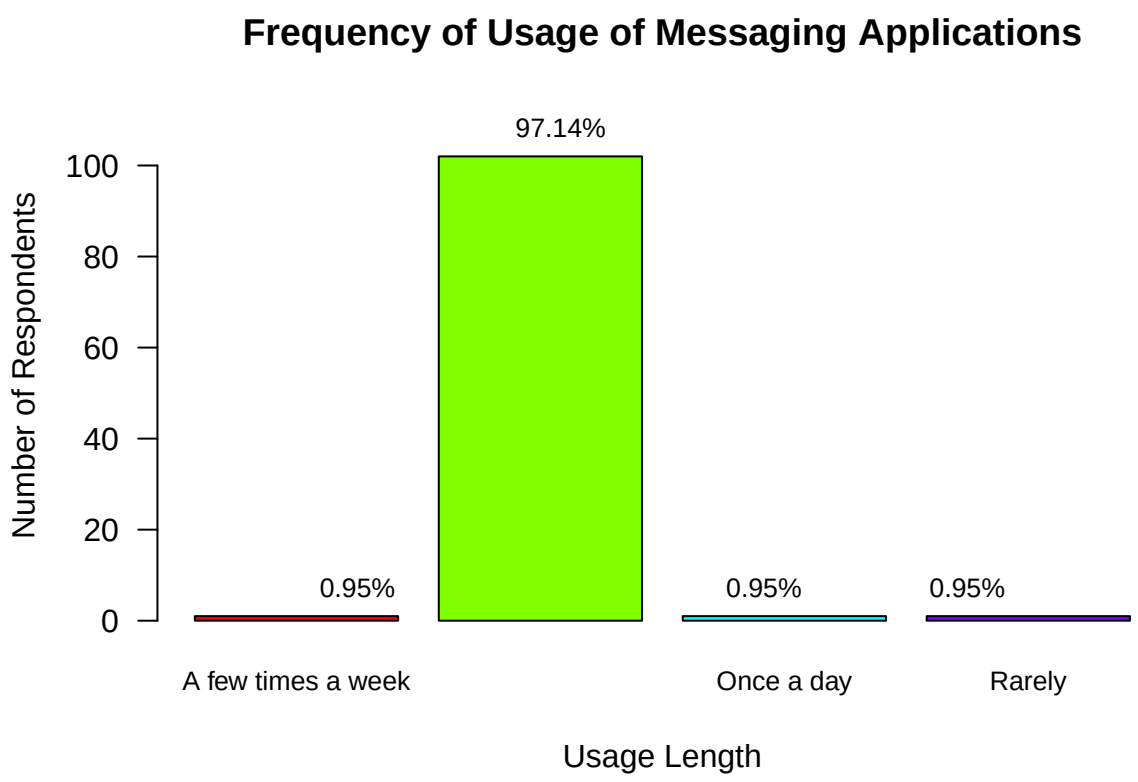
```
#DEMOGRAPHIC:Frequency of usage using messaging apps
usage_length <- table(messRespon$How.often.do.you.use.messaging.apps.)
usage_length
```

```
##
##   A few times a week Multiple times a day           Once a day
##                    1                  102                    1
##               Rarely
##                    1
```

```
percentages <- round(prop.table(usage_length) * 100, 2)


barplot(usage_length,
        main = "Frequency of Usage of Messaging Applications",
        col = rainbow(length(usage_length)),
        names.arg = names(usage_length),
        xlab = "Usage Length",
        ylab = "Number of Respondents",
        cex.names = 0.8,
        las = 1,
        ylim = c(0, max(usage_length) * 1.1)
)
```

```
text(x = 1:length(usage_length), y = usage_length, labels = paste0(percentages, "%"), pos = 3, cex = 0.8
```

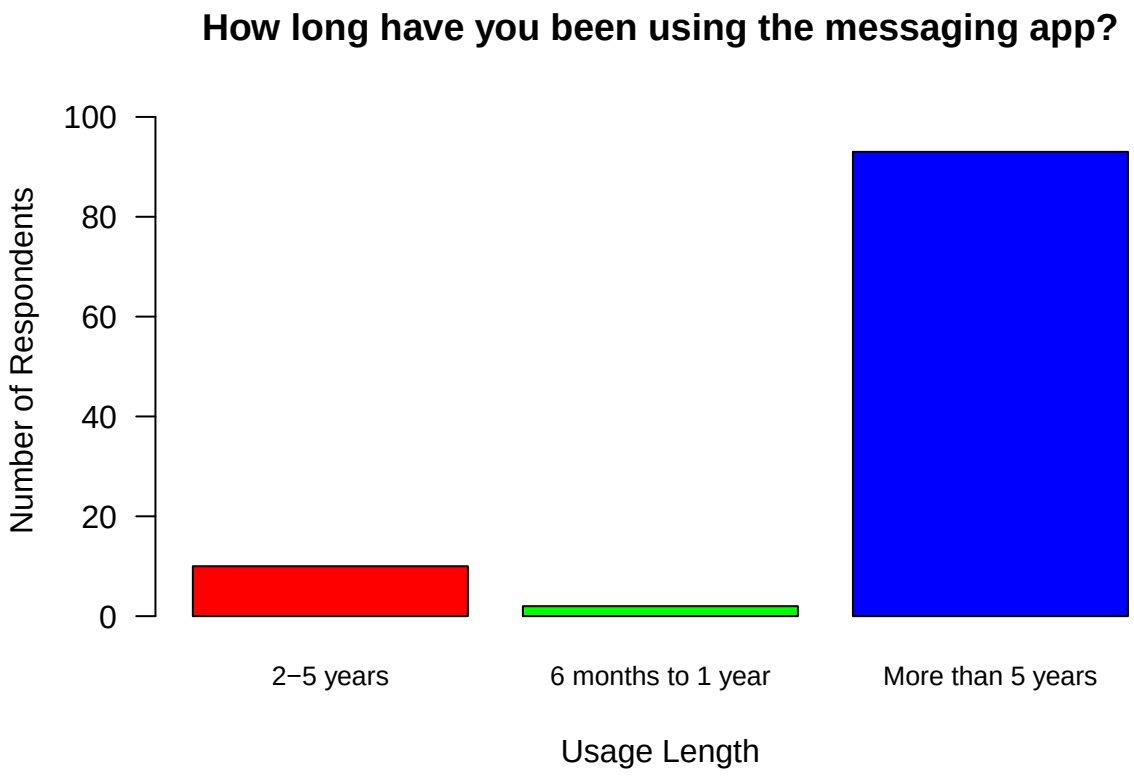



```
#INSIGHTS: Out of 105 respondents, the 102 respondents used messaging applications multiple times in a
```

```
#DEMOGRAPHIC:How long have you been using the messaging app?
usage_length <- table(messRespon$How.long.have.you.been.using.messaging.apps.)
usage_length
```

```
##
##          2-5 years 6 months to 1 year  More than 5 years
##                 10                   2                  93
```

```
percentages <- round(prop.table(usage_length) * 100, 2)
barplot(usage_length,
        main = "How long have you been using the messaging app?",
        col = rainbow(length(usage_length)),
        names.arg = names(usage_length),
        xlab = "Usage Length",
        ylab = "Number of Respondents",
        cex.names = 0.8,
        las = 1,
        ylim = c(0, max(usage_length) * 1.1)
)
```

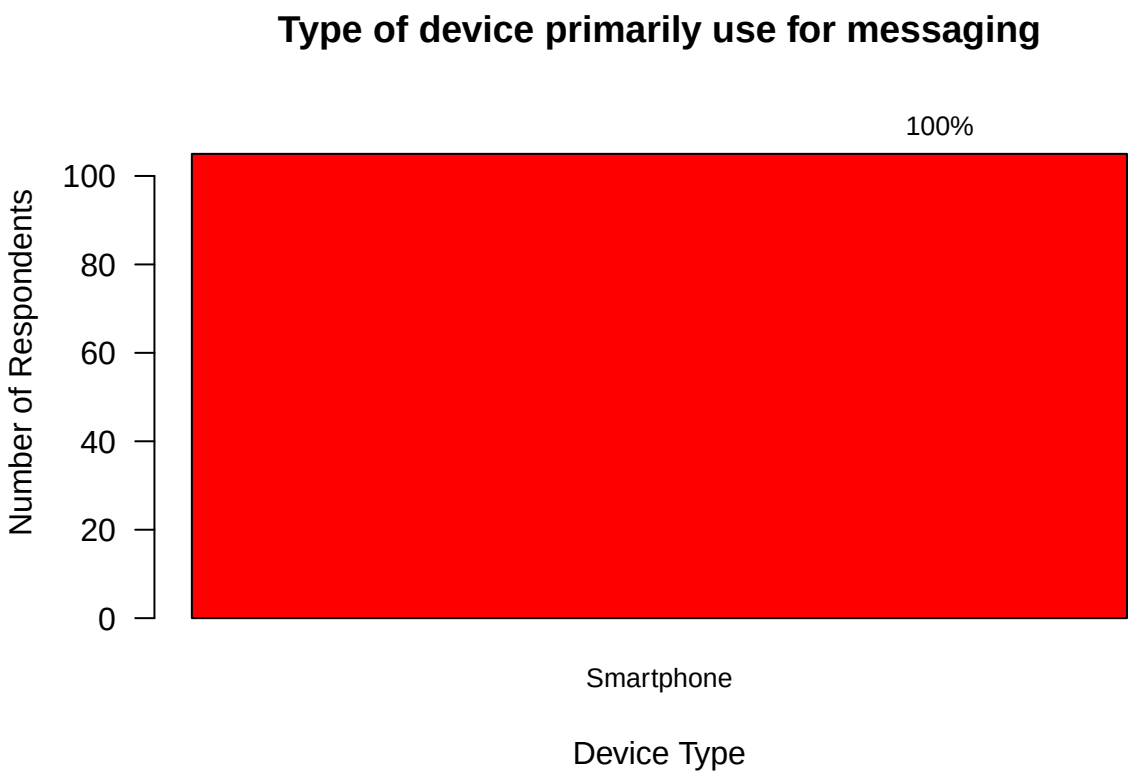



```
#INSIGHTS: Most of the respondents used the messaging for a long time, approximately more than 5 years.
```

```
#DEMOGRAPHIC: Device used for messaging
device_type <- table(messRespon$What.type.of.device.do.you.primarily.use.for.messaging.)
percentages <- round(prop.table(device_type) * 100, 2)


barplot(device_type,
        main = "Type of device primarily use for messaging",
        col = rainbow(length(device_type)),
        names.arg = names(device_type),
        xlab = "Device Type",
        ylab = "Number of Respondents",
        cex.names = 0.8,
        las = 1,
        ylim = c(0, max(device_type) * 1.1)
)


text(x = 1:length(device_type), y = device_type, labels = paste0(percentages, "%"), pos = 3, cex = 0.8,
```




```
#INSIGHTS: All of the respondents primarily used smartphone device as it its easy to access and navigat
```