

# final\_report

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```
df <- read.csv("TextMessages.csv")

library(tidyverse)

## Warning: package 'tidyverse' was built under R version 4.3.2
## Warning: package 'readr' was built under R version 4.3.2
## Warning: package 'dplyr' was built under R version 4.3.2
## Warning: package 'stringr' was built under R version 4.3.2

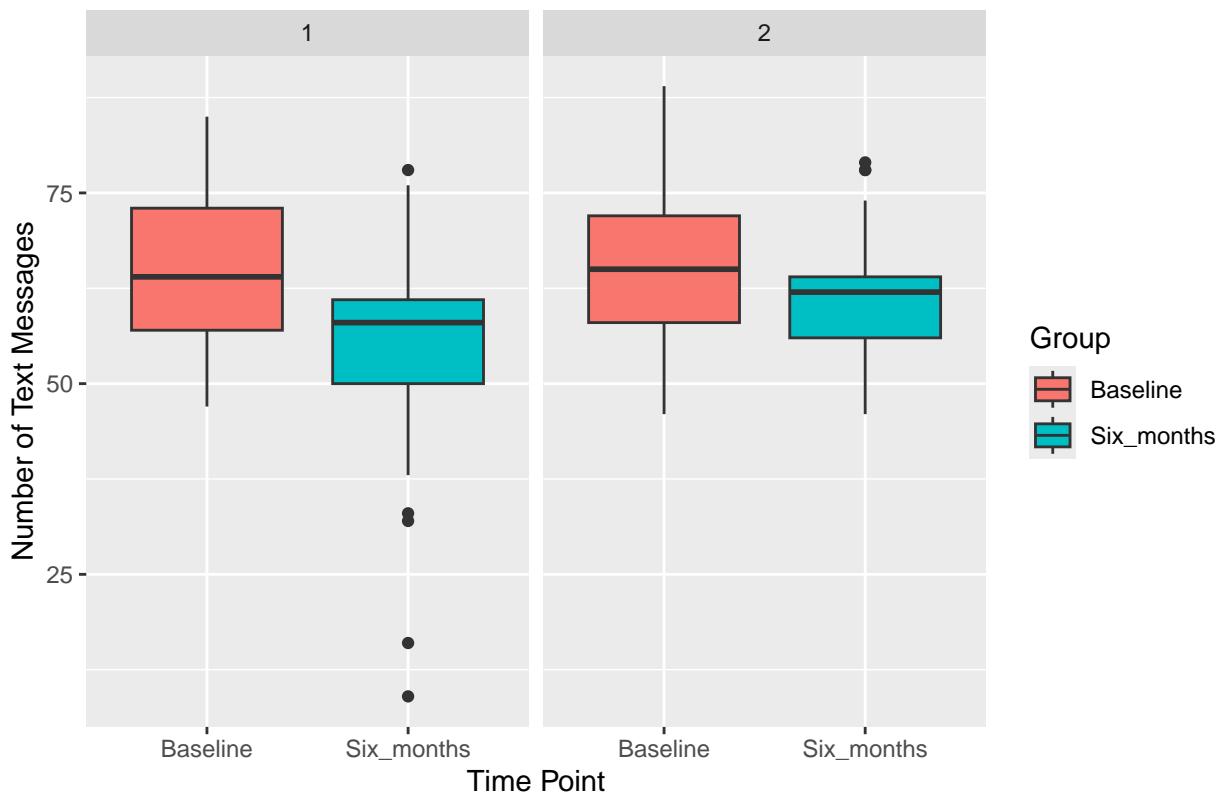
## -- Attaching core tidyverse packages ----- tidyverse 2.0.0 --
## v dplyr     1.1.4    v readr     2.1.5
## vforcats   1.0.0    v stringr   1.5.1
## v ggplot2   3.5.0    v tibble    3.2.1
## v lubridate 1.9.3    v tidyverse  1.3.1
## v purrr    1.0.2

## -- Conflicts ----- tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()   masks stats::lag()
## i Use the conflicted package (<http://conflicted.r-lib.org/>) to force all conflicts to become errors.

df_long <- df %>% pivot_longer(cols = c(Baseline, Six_months), names_to = "Time", values_to = "Text_Count")

library(ggplot2)
ggplot(df_long, aes(x = Time, y = Text_Count, fill = Time)) + geom_boxplot() + facet_wrap(~Group) +
  labs(title = "Text Messages by Group and Time", x = "Time Point", y = "Number of Text Messages",
       fill = "Group")
```

## Text Messages by Group and Time



Code from Josh's .R file

```
library(tidyverse)

df <- readr::read_csv("TextMessages.csv")

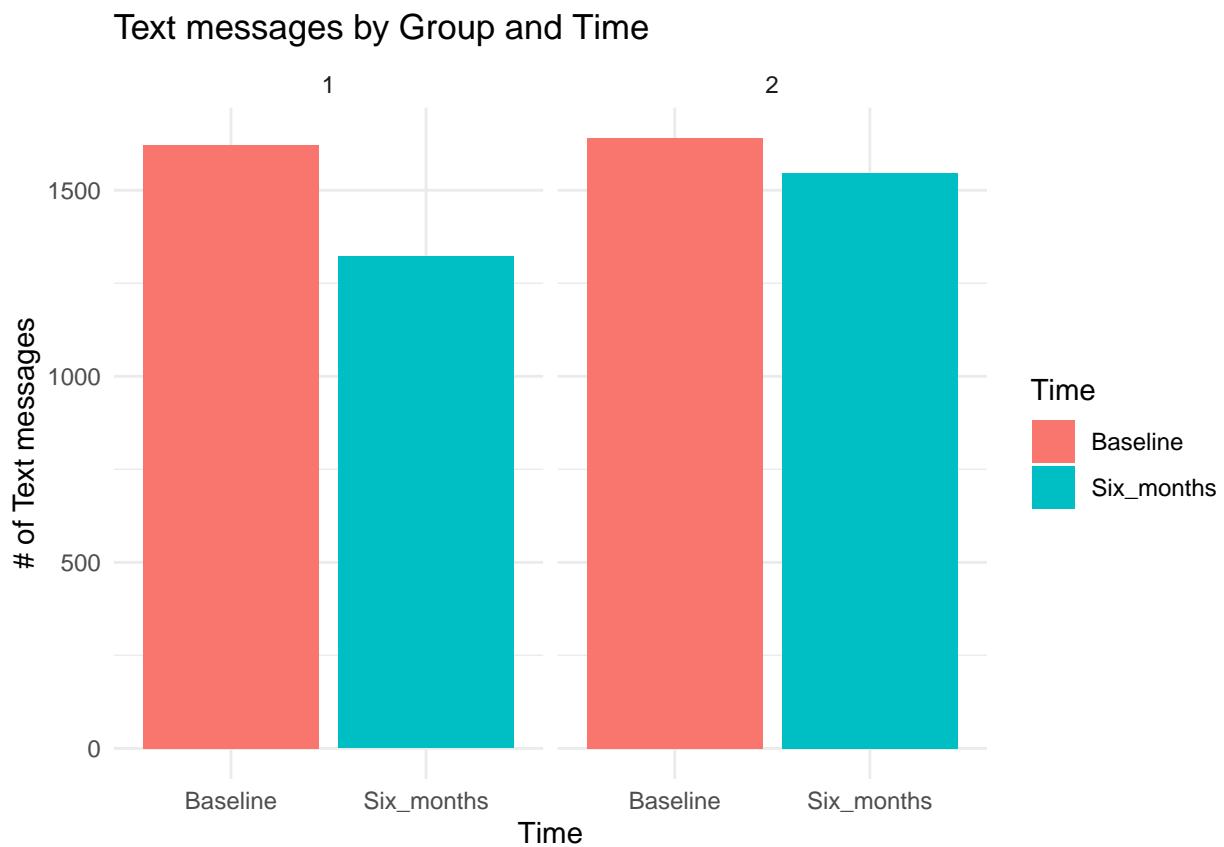
## Rows: 50 Columns: 4
## -- Column specification --
## Delimiter: ","
## dbl (4): Group, Baseline, Six_months, Participant
##
## i Use `spec()` to retrieve the full column specification for this data.
## i Specify the column types or set `show_col_types = FALSE` to quiet this message.
# reshape data to combine our time (baseline and 6 months) into one column

df_combine <- df %>%
  pivot_longer(
    cols = c(Baseline, Six_months),
    names_to = "Time",
    values_to = "Messages"
  )

# create our faceted bar plot

ggplot(df_combine, aes(x = Time, y = Messages, fill = Time)) +
  geom_col() +
```

```
facet_wrap(~ Group) +
  labs(
    title = "Text messages by Group and Time",
    x = "Time",
    y = "# of Text messages",
    fill = "Time"
  ) +
  theme_minimal()
```



```
library(tidyverse)

readr::read_csv("TextMessages.csv")

## # A tibble: 50 x 4
##   Group Baseline Six_months Participant
##   <dbl>    <dbl>     <dbl>      <dbl>
## 1     1        1       52        32        1
## 2     1        1       68        48        2
## 3     1        1       85        62        3
```

```

## 4      1      47      16      4
## 5      1      73      63      5
## 6      1      57      53      6
## 7      1      63      59      7
## 8      1      50      58      8
## 9      1      66      59      9
## 10     1      60      57     10
## # i 40 more rows

# reshape data to combine our time (baseline and 6 months) into one column

df_combine <- df %>%
  pivot_longer(
    cols = c(Baseline, Six_months),
    names_to = "Time",
    values_to = "Messages"
  )

# output our summary statistics

summary_stats <- df_combine %>%
  group_by(Group, Time) %>%
  summarise(
    mean = mean(Messages),
    sd = sd(Messages),
    n = n(),
    var = var(Messages),
    min = min(Messages),
    max = max(Messages),
    IQR = IQR(Messages),
    median = median(Messages),
    .groups = "drop"
  )

# place summary stats in a table

knitr::kable(summary_stats, digits = 2,
             caption = "Summary Statistics for Messages by Group and Time")

```

```

## Warning: 'xfun::attr()' is deprecated.
## Use 'xfun::attr2()' instead.
## See help("Deprecated")

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## Use 'xfun::attr2()' instead.
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```

Table 1: Summary Statistics for Messages by Group and Time

Group	Time	mean	sd	n	var	min	max	IQR	median
1	Baseline	64.84	10.68	25	114.06	47	85	16	64
1	Six_months	52.96	16.33	25	266.71	9	78	11	58
2	Baseline	65.60	10.84	25	117.42	46	89	14	65
2	Six_months	61.84	9.41	25	88.56	46	79	8	62