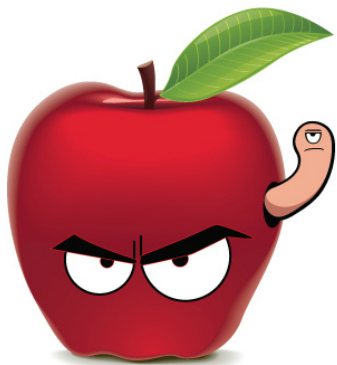


Bad Apple Preliminary Analysis Recap

Elva 08/04/2014





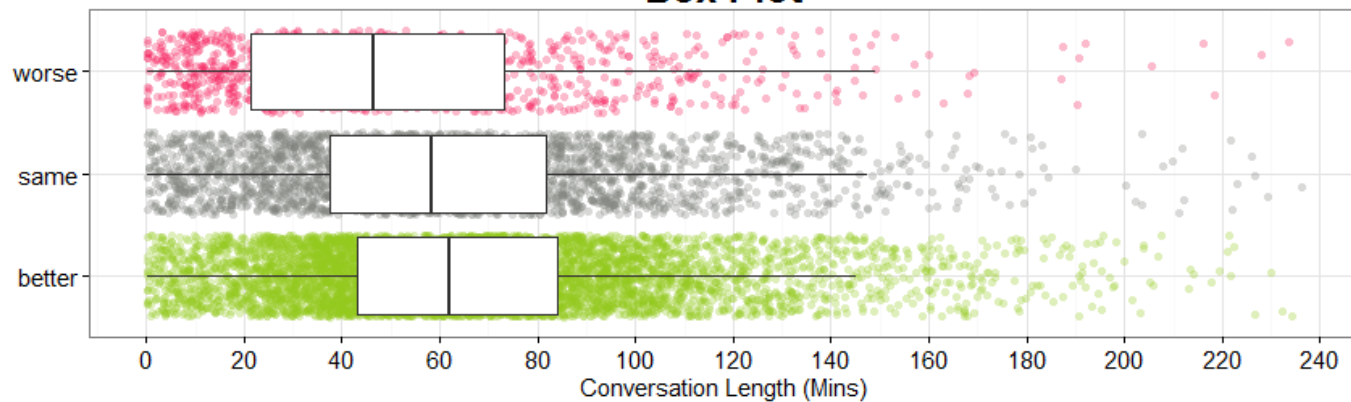
- This preliminary analysis aims to understand **what factors may affect texter rating.**
- Variables are constructed from either conversation level data or message level data, and are looked at separately.
- Boxplot and density plot are used to help visualize potential correlations.
- Two WORD CLOUD graphs are presented in the end.



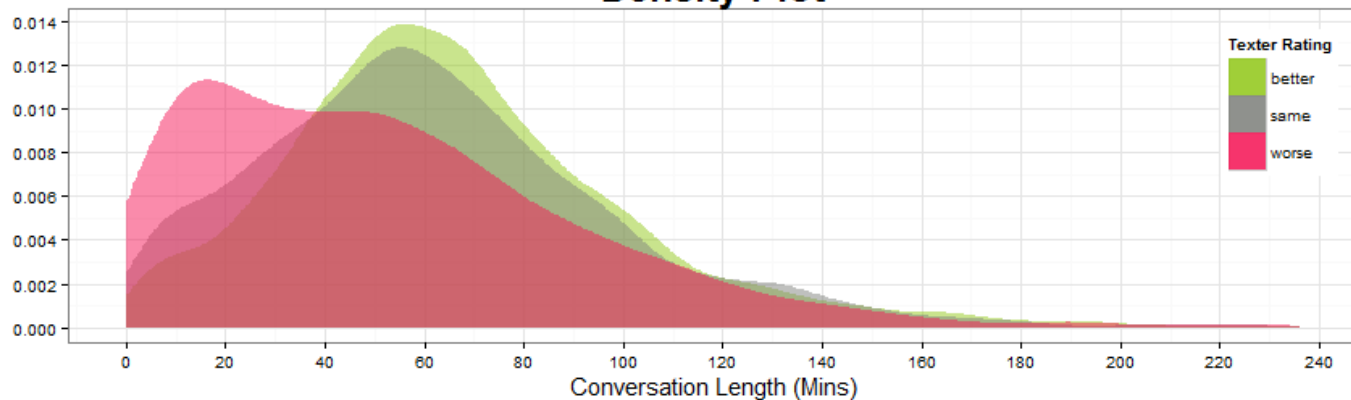
The following indicators are proven
strongly correlated with texter rating.

Conversation Length and Texter Rating

Box Plot



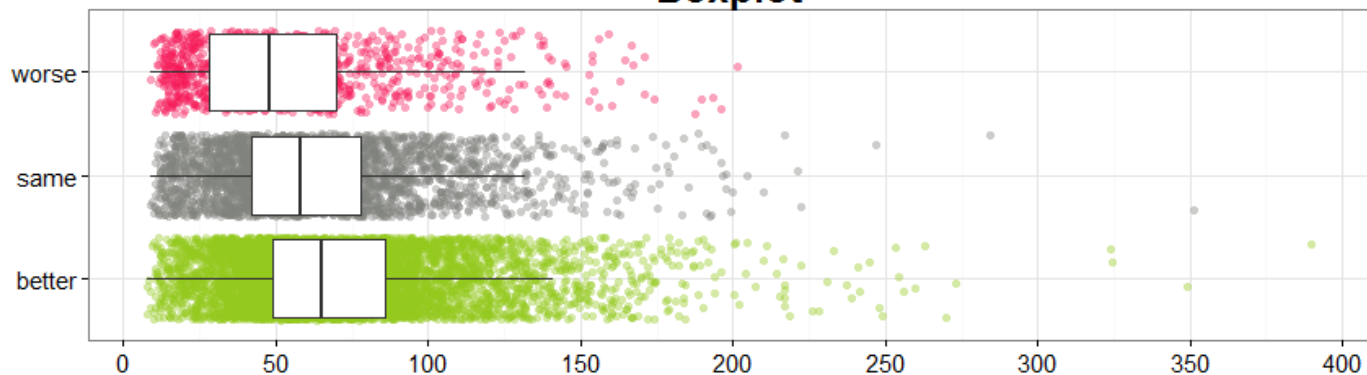
Density Plot



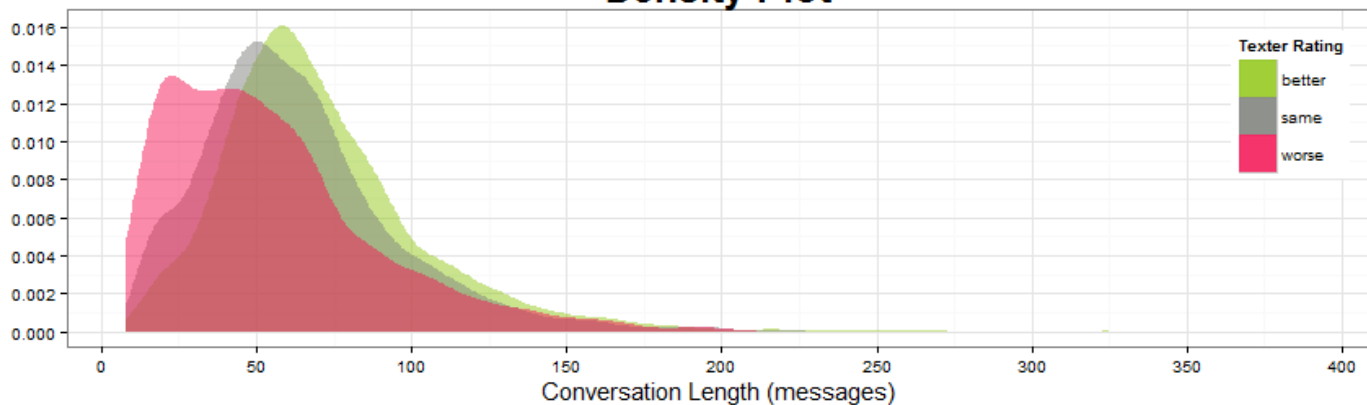
The **longer** the conversation is, the better the rating.

Conversation Length (Total Messages) and Texter Rating

Boxplot



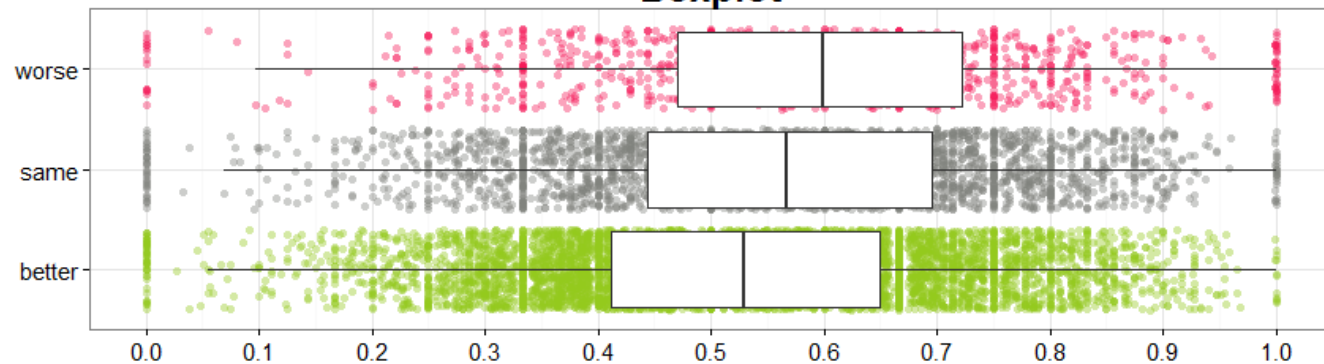
Density Plot



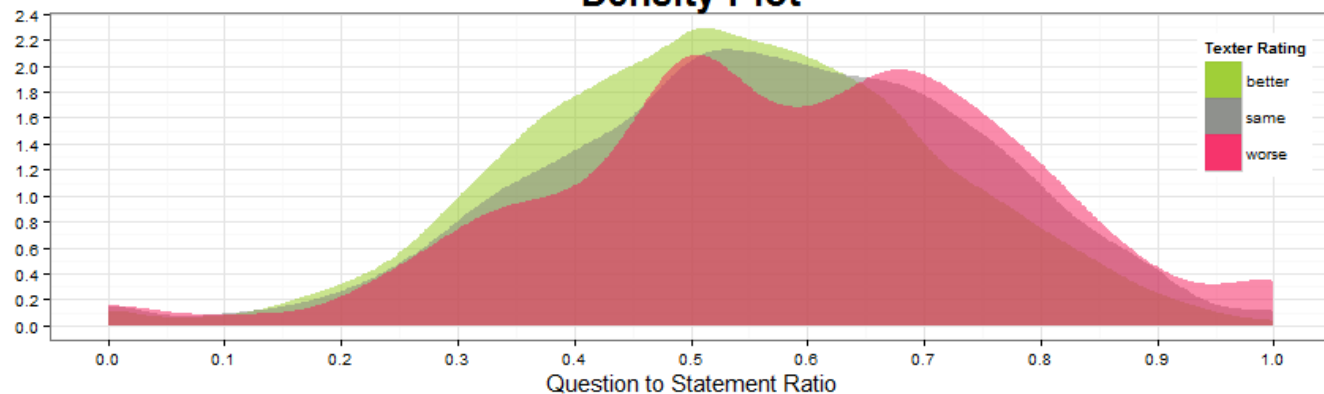
The more **messages exchanged** during a conversation, the better the rating.

Question to Statement Ratio and Texter Rating

Boxplot



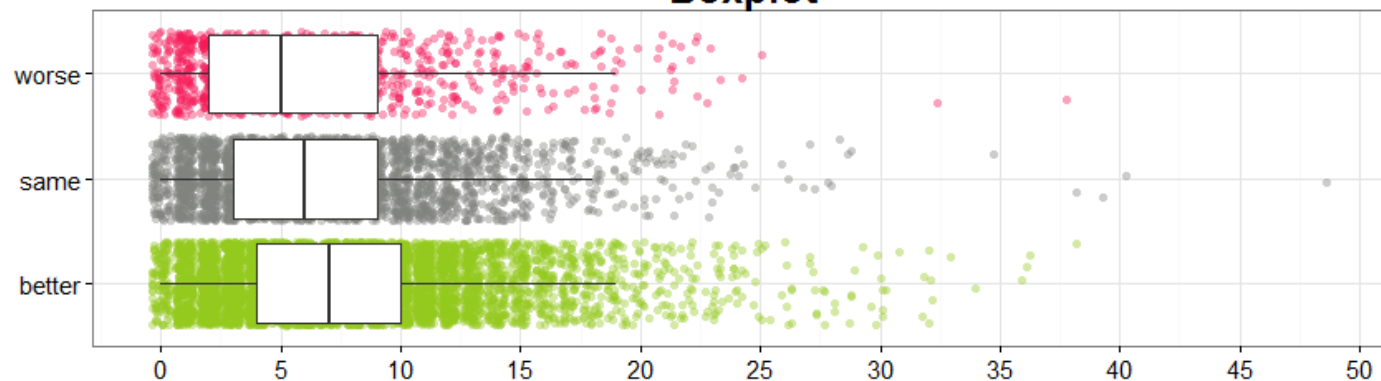
Density Plot



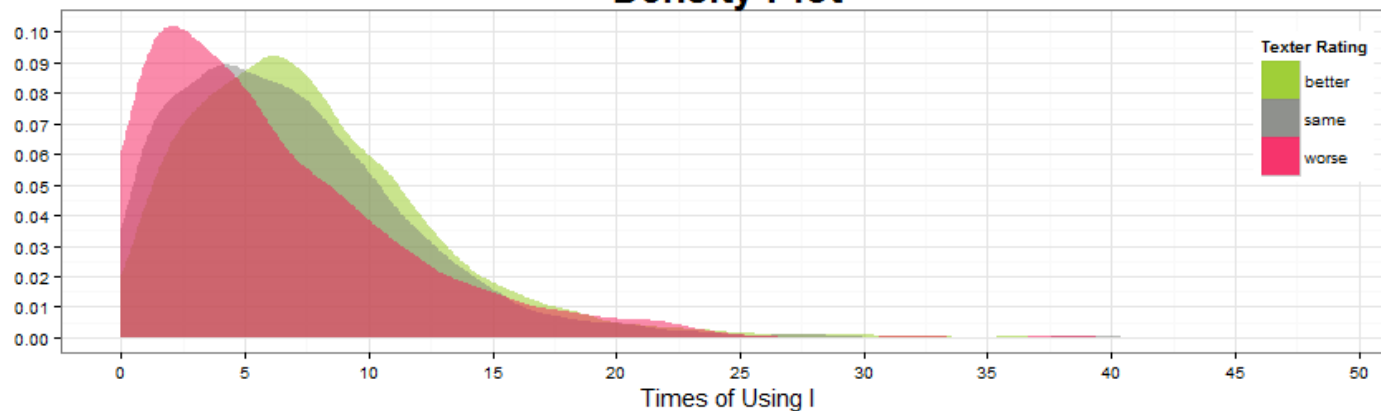
On average, the **less question** a specialist asks, the better the rating.

Times of Counselor Using I and Texter Rating

Boxplot



Density Plot



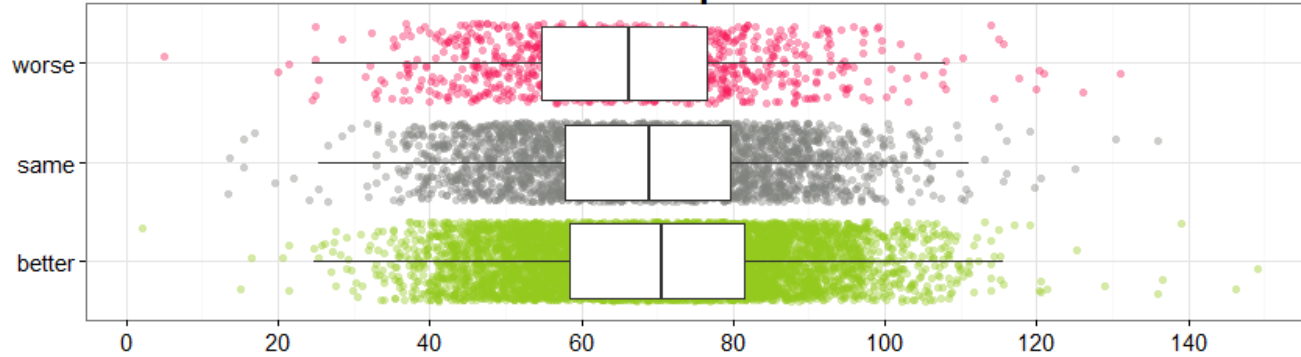
The more often a specialist uses **first person** in the conversation, the better the rating.



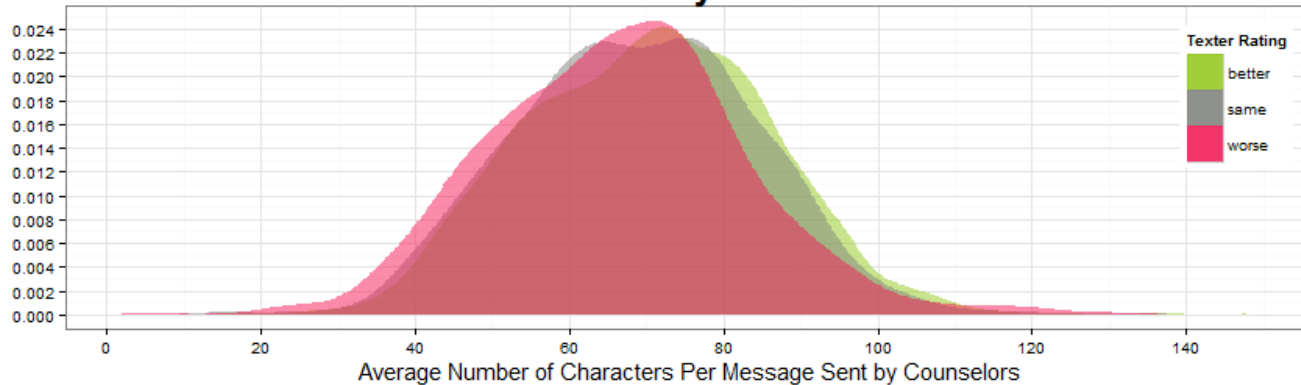
The following indicators show a **weak correlation** with texter rating.

Average Message Length and Texter Rating

Boxplot



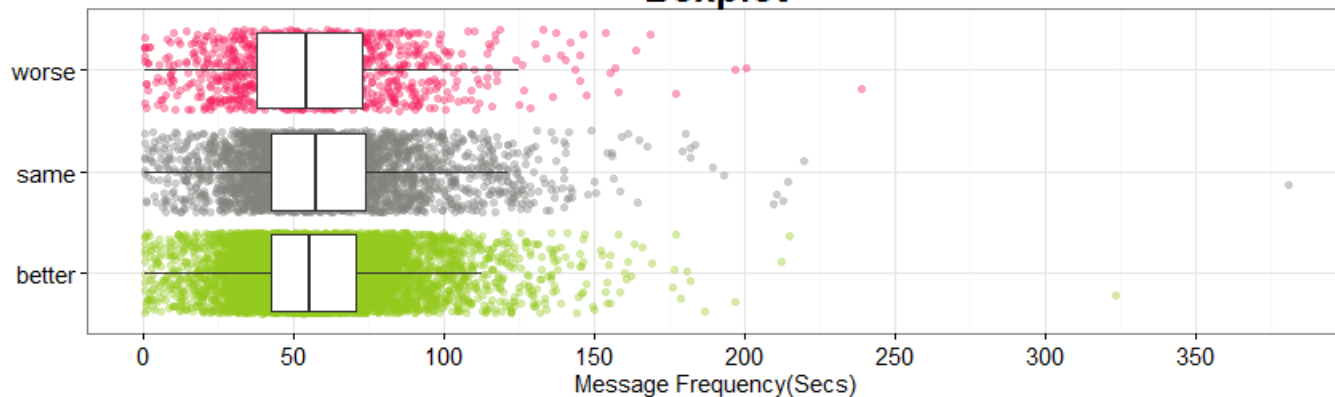
Density Plot



On average, the **longer the message** sent by a specialist is, the better the rating.

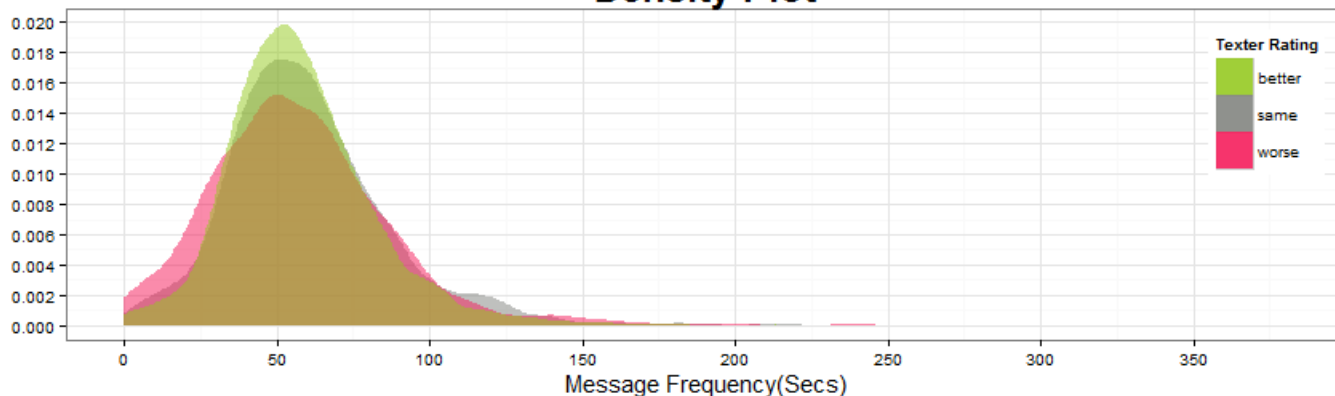
Message Exchange Frequency and Texter Rating

Boxplot



This measures the active level of a conversation as - on average, a message is exchanged every xx minutes.

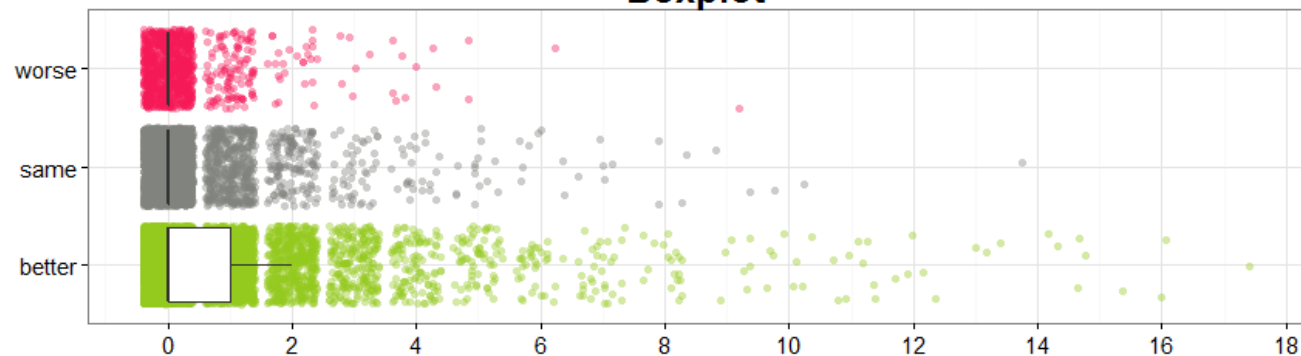
Density Plot



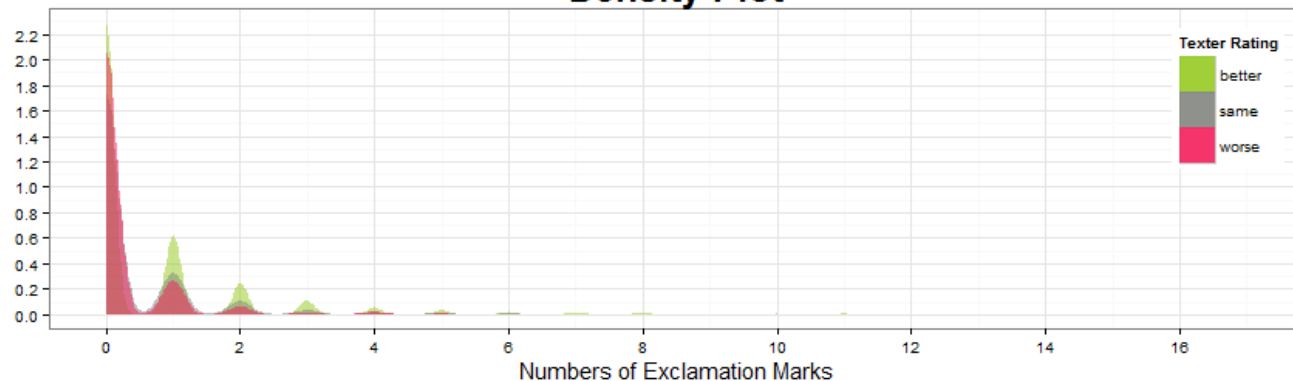
On average, message exchange frequencies are about the same across three groups. But, notice the worse conversation has **bigger variance**.

Numbers of Exclamation Marks Used and Texter Rating

Boxplot

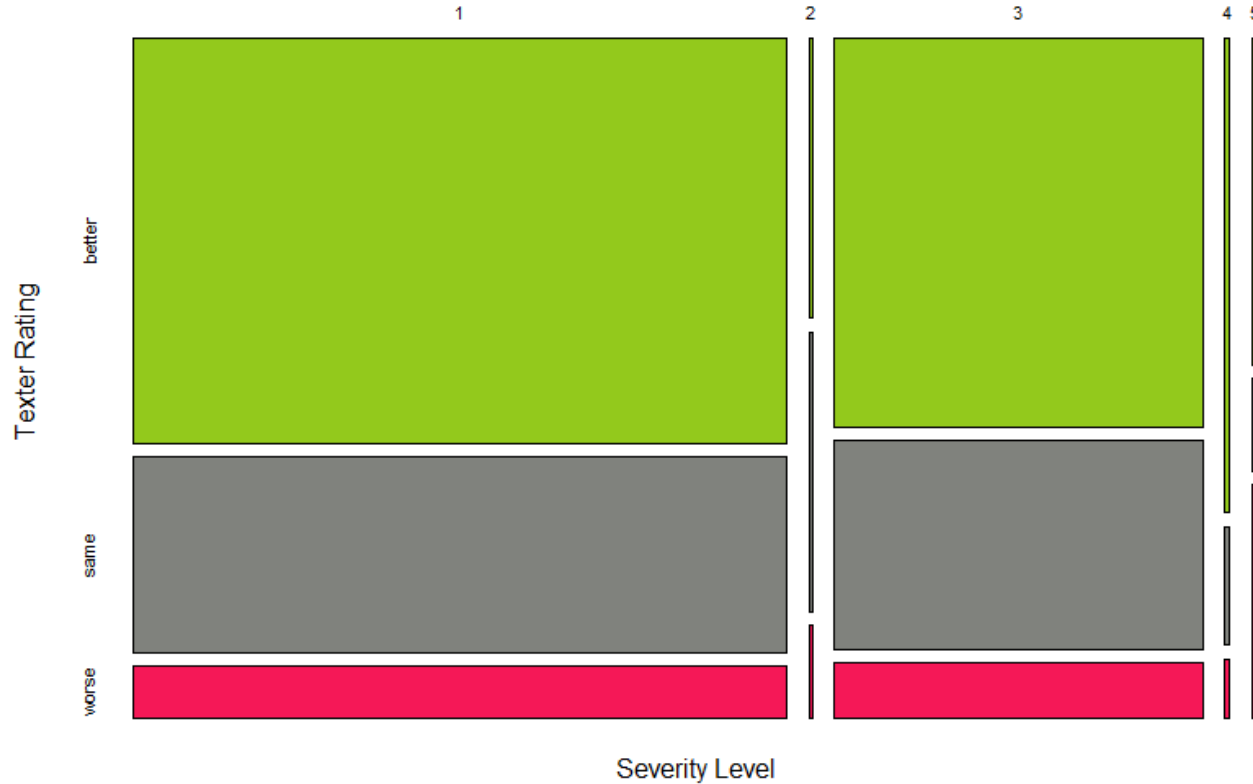


Density Plot



It seems the more **exclamation marks** a specialist uses, the better the texter rating.

Severity of Issues and Texter Rating

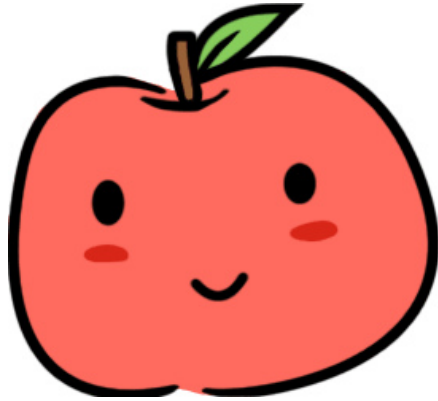


- Severity is measured based on survey questions.

- The area of a square indicates total number of conversations.

- Vertical distance measures the proportion of conversations that are rated better, same and worse.

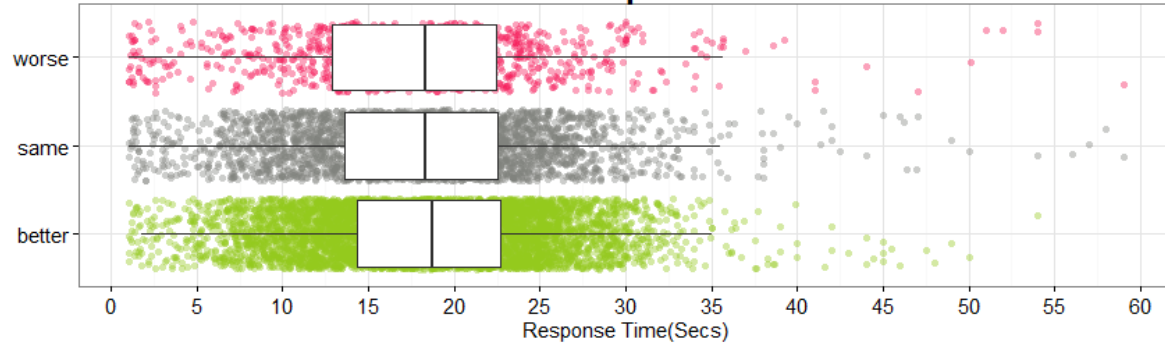
Only **severity level 5** (when active rescue is provided) shows significantly more worse ratings.



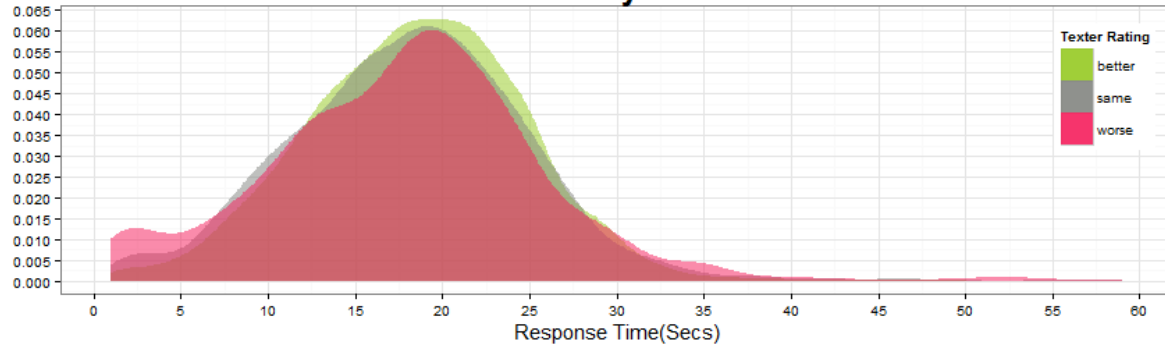
No correlation has been found so far between the following variables and the texter rating.

Average Counselor Response Time and Texter Rating

Boxplot



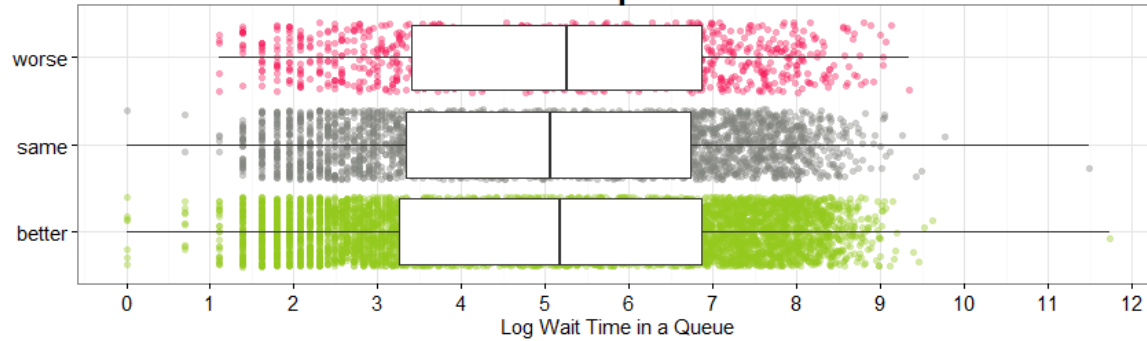
Density Plot



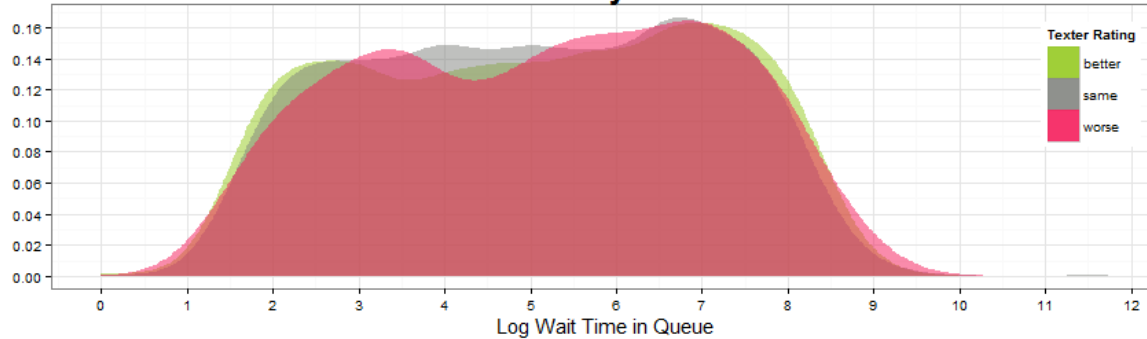
The time it takes for a specialist to respond a texter's message is on average the same across three groups.

Wait Time in Queue and Texter Rating

Boxplot



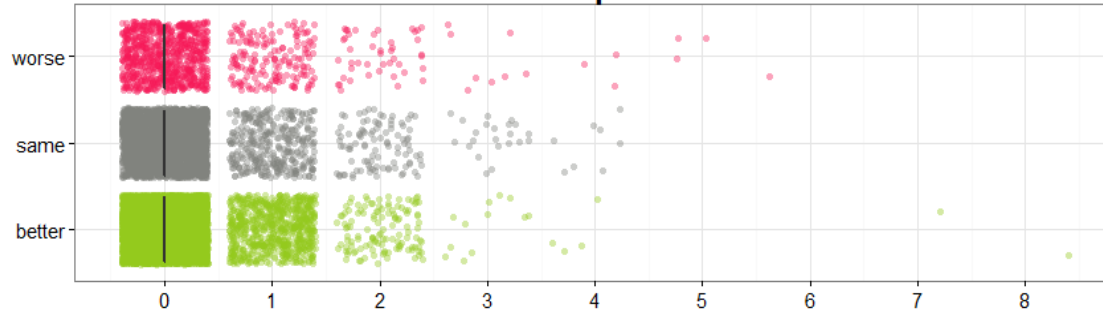
Density Plot



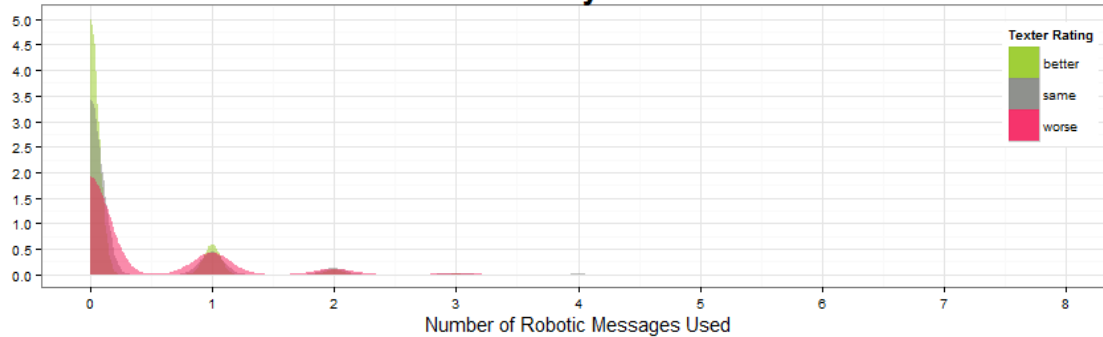
Surprisingly, for engaged conversations, wait time in queue does not affect texter rating.

Number of Robotic Messages Used and Texter Rating

Boxplot

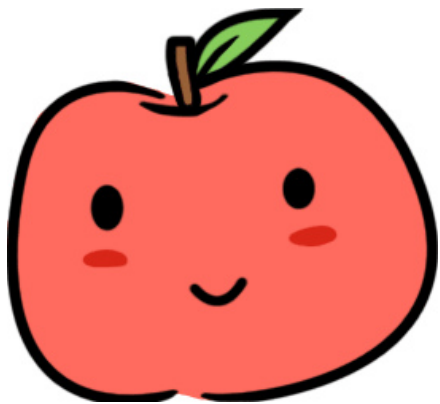


Density Plot



- The number of canned messages used by a specialist does not seem to have an effect.

- We may need to condition on conversation length,



What are our **texters** and **specialists** saying?



highest frequency words a texter says

highest frequency words a texter says

Specialist
Word Cloud
highest frequency words
a specialist says

Specialist
Word Cloud
highest frequency words
a specialist says

