Building an ESL Chatbot

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Example dialogue from eslfast.com

▶ 0:00 / 0:33 ◄)) ⋮

☐ Repeat

A: The ocean is so big.

B: You can't see the end of it.

A: It goes on and on forever.

B: And it's deep, too.
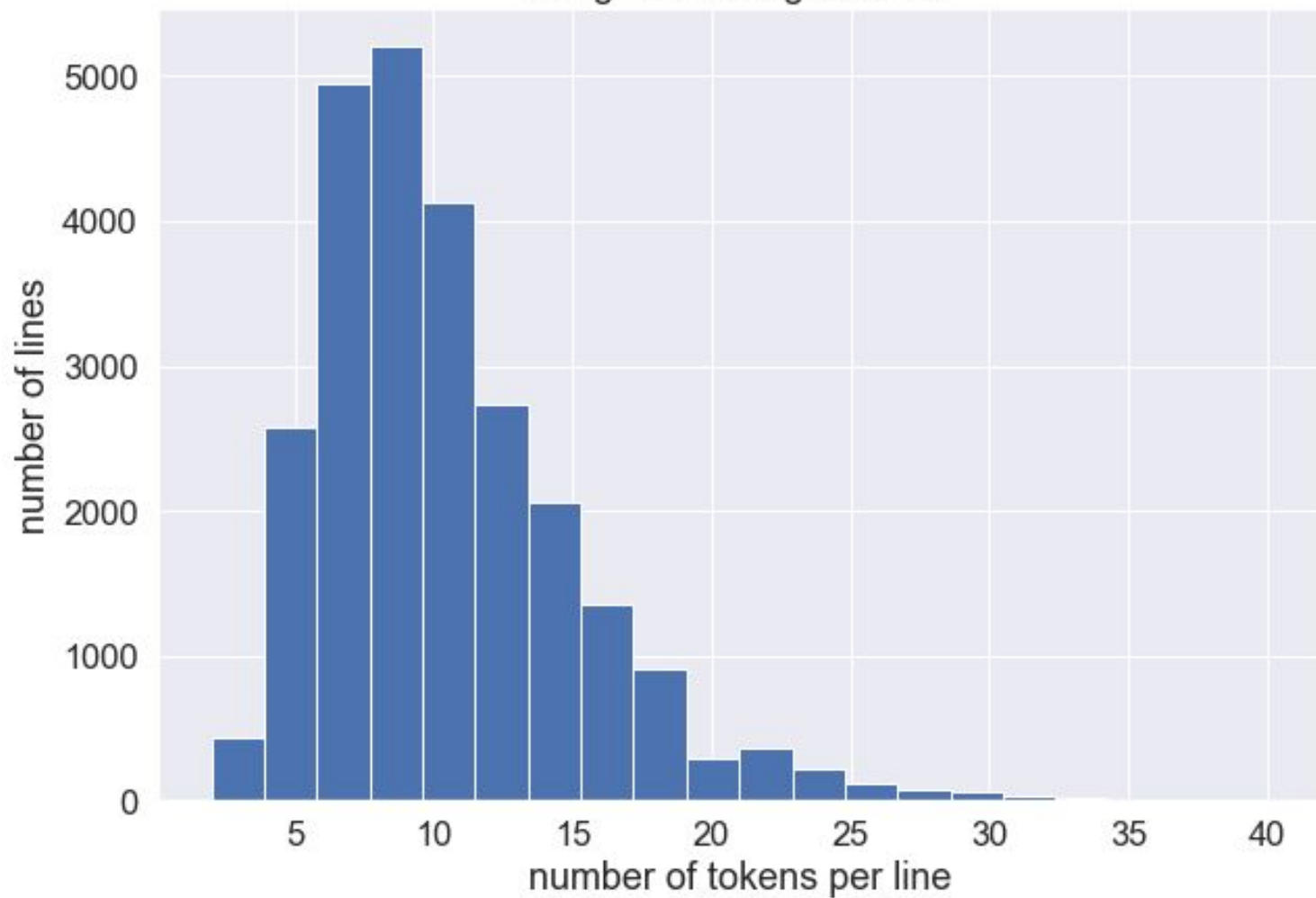
A: I think it's five miles deep.

B: Are there fish at the bottom?

A: There are fish at the top and the bottom.

B: Are there more fish or more people?

A: I think there are more fish.
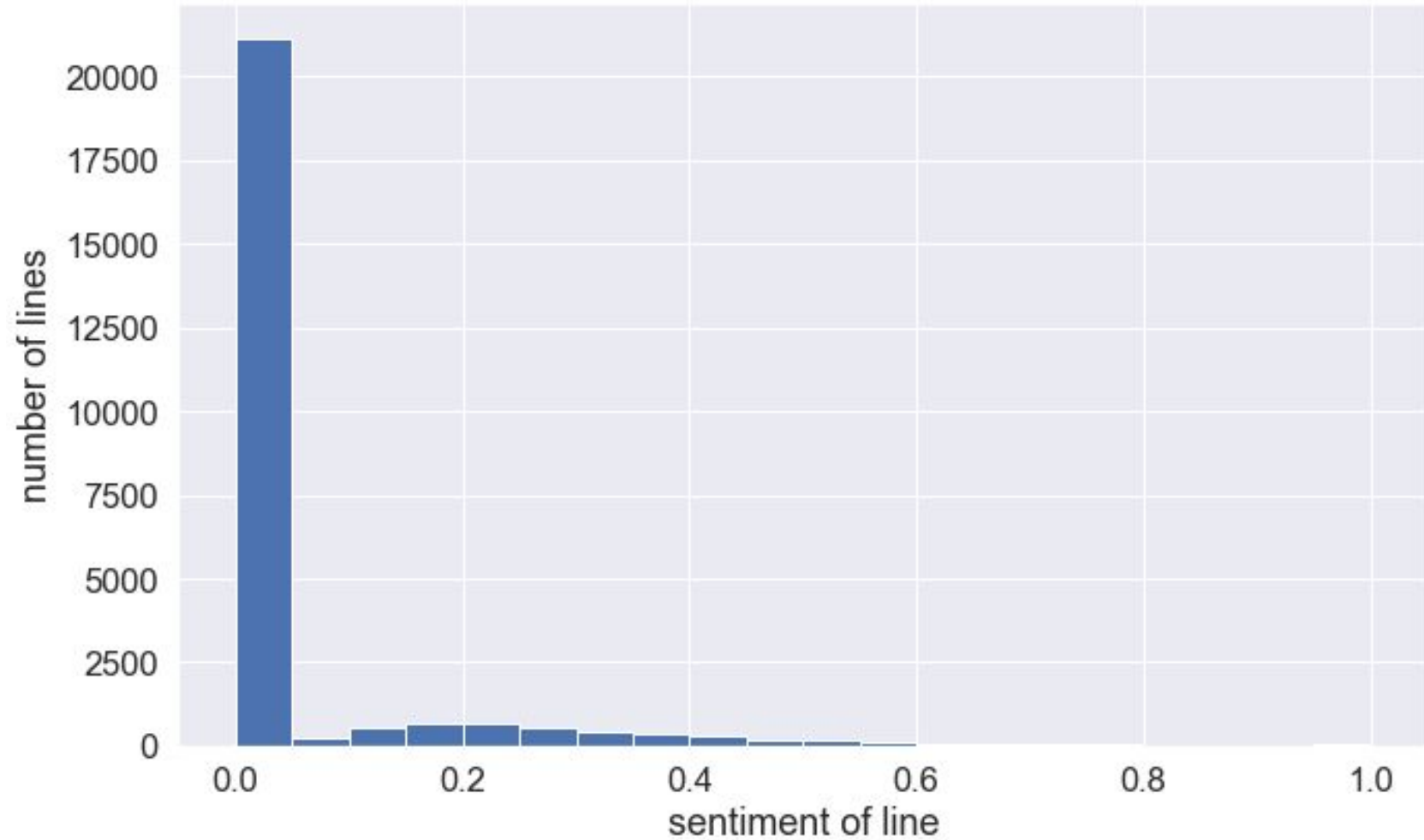
Length of Dialogue Lines

The Longest Lines in the Dialogue

1. "I was hoping that you and I could maybe spend a Friday evening together. I was wondering if you would like to go with me this Friday to see a movie and get a bite to eat afterwards."

2. "I would try to avoid going in to the DMV in person. If you are a member of the Automobile Club, they oftentimes can take care of things for you or you can try the DMV website."

3. "You need to make sure you arrive on time, smile, be pleasant and friendly, look the person in the eye and answer all questions to the best of your ability. You'll do great!"

4. "Well, my car is very old, so I didn't worry so much about what it would cost to repair it. I did buy a lot of coverage for fixing someone else's car."

5. "As long as you are careful reading the signs, you will always know how long you can park and what days are OK to park there. Are you aware of the curb colors?"
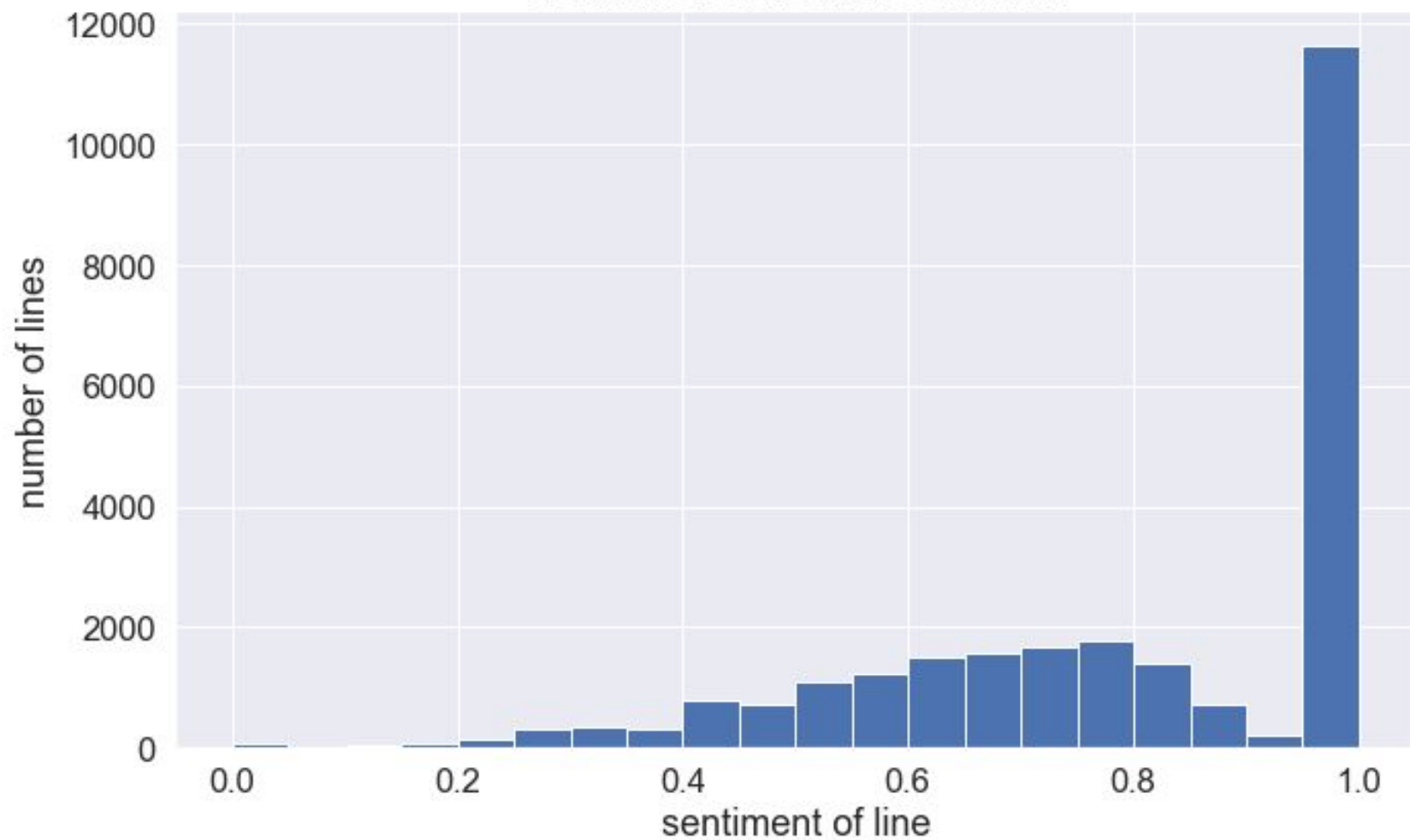
The Shortest Lines in the Dialogue

1. "Why?"

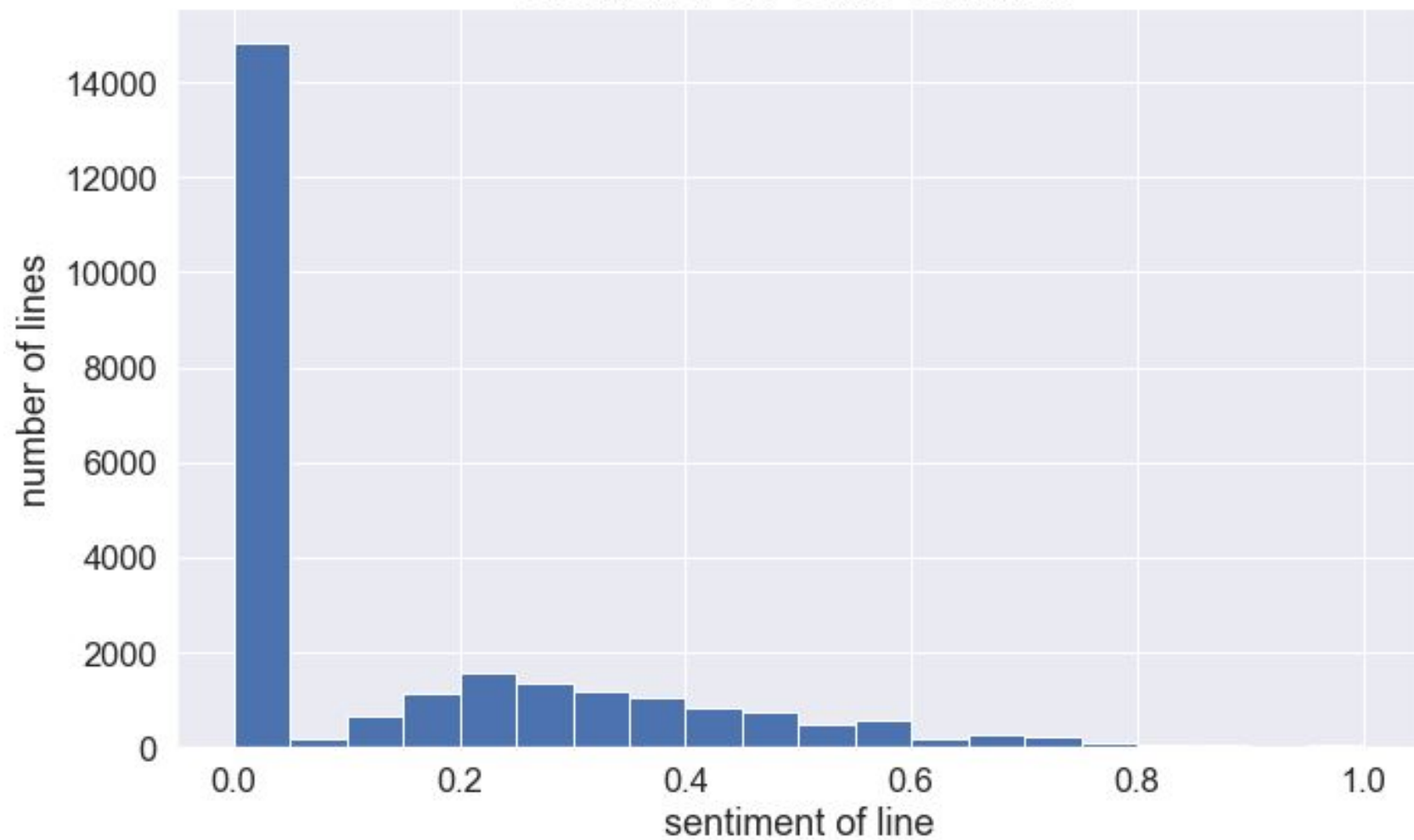2. "Really?"

3. "Why?"

4. "Really?"

5. "Smart."

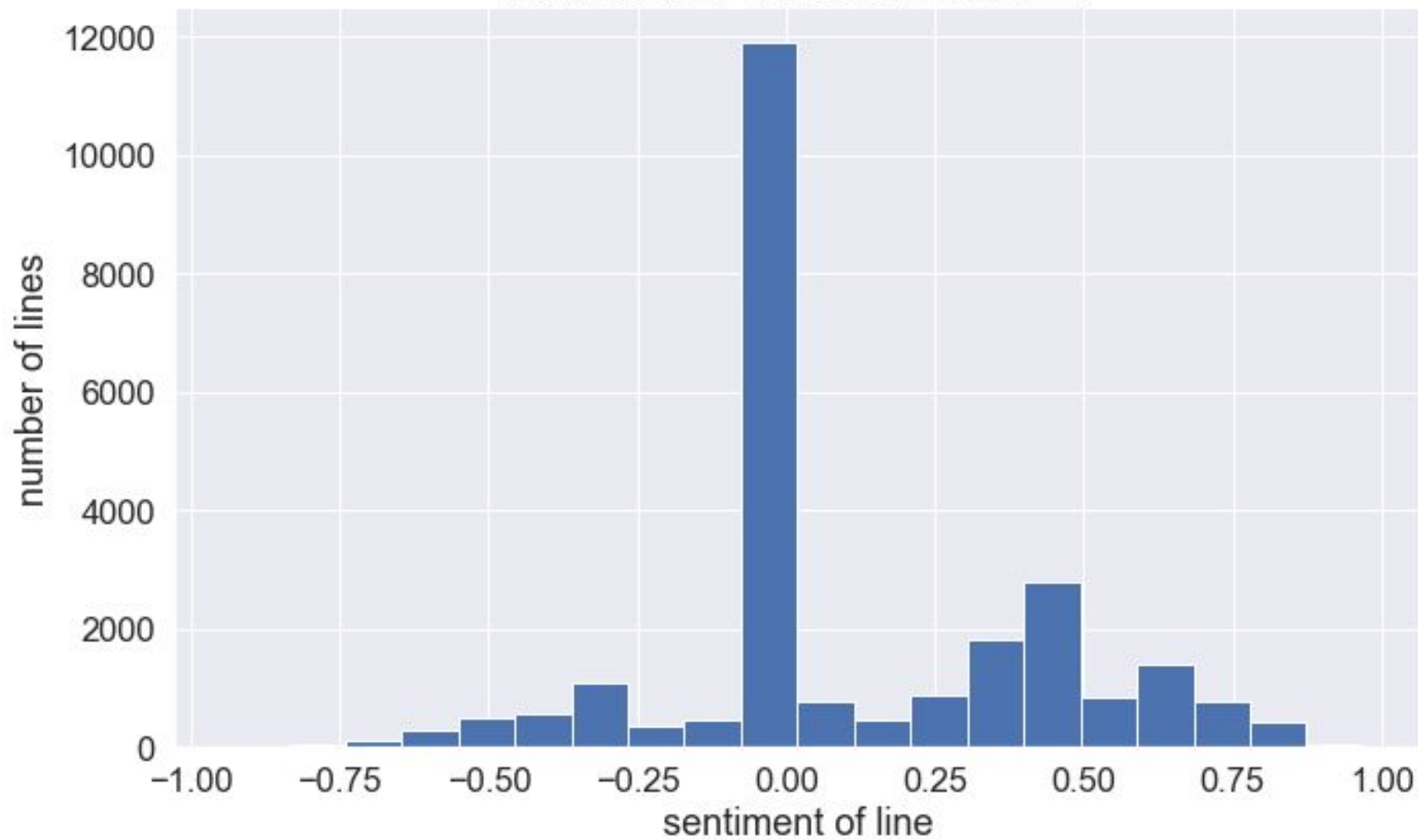Distribution of Negative Sentiment

Distribution of Neutral Sentiment

Distribution of Positive Sentiment
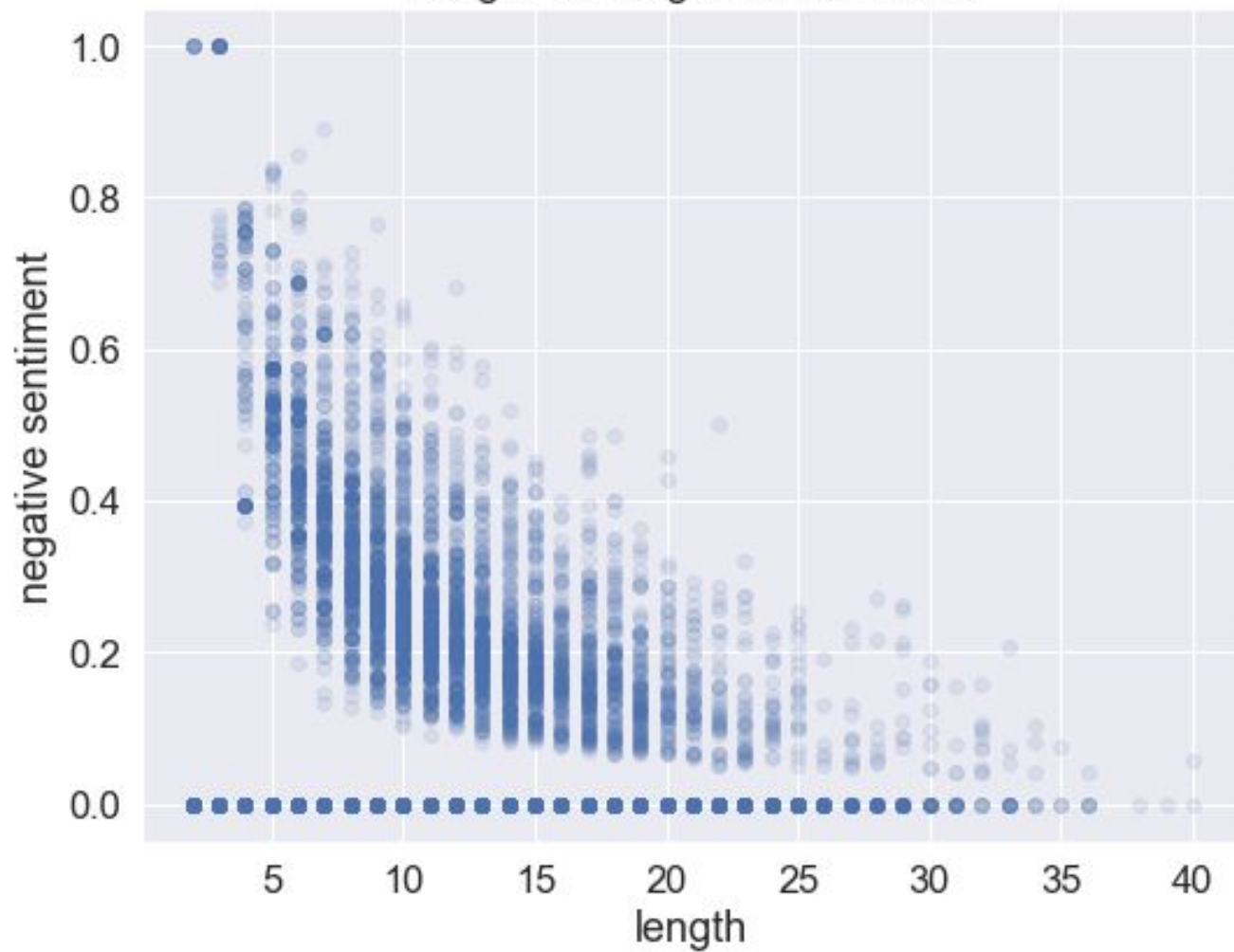
Distribution of Combined Sentiment

The Most Positive Lines in the Dialogue

1. You need to make sure you arrive on time, smile, be pleasant and friendly, look the person in the eye and answer all questions to the best of your ability. You'll do great!
   sentiment score: 0.969

2. I loved the special effects and the story. I like Princess Leah. Who did you like the best?
   sentiment score: 0.9413

3. Fine, well the job search tools are all here for you to use. Feel free to look around and use what works best for you. Have fun with it!
   sentiment score: 0.9324

4. OK. I will mention how great you were about helping me today. I appreciate your help.
   sentiment score: 0.9278

5. The best way is to go to a website like Travelocity or Expedia. They can help you find the best price.
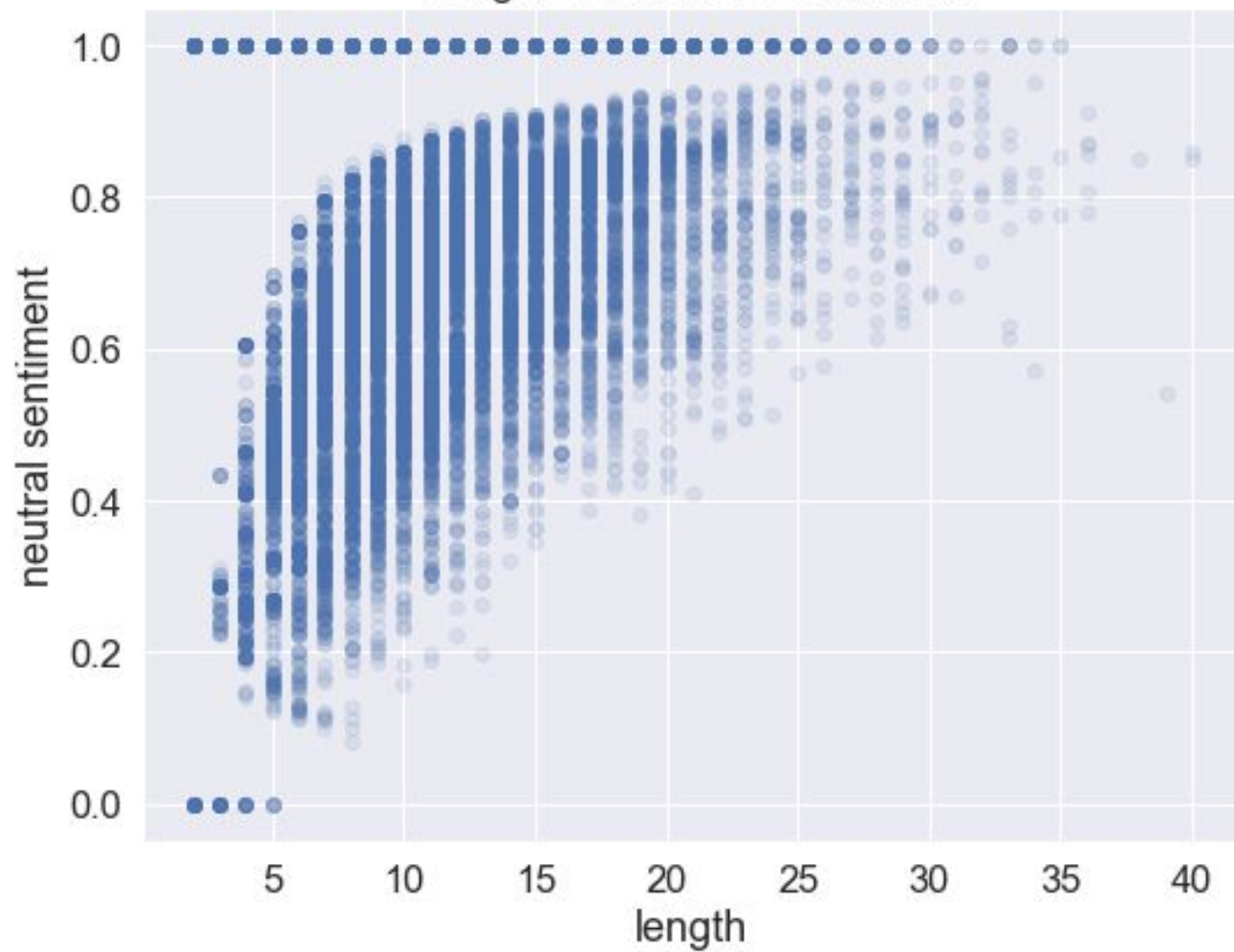   **sentiment score: 0.9274**

The Most Negative Lines in the Dialogue

1. There is a new horror flick about a rapist serial killer.
   sentiment score: -0.9313

2. I started feeling kind of sick last night after dinner, but this morning the pain got really bad!
   sentiment score: -0.9158

3. I'm sorry, but no. We used to have a trainer, but then he had an unfortunate accident.
   sentiment score: -0.9022

4. If we are bad, we will be unhappy forever in hell.
   sentiment score: -0.8979

5. Crime can happen anywhere, but it is a little worse here because of the poverty.
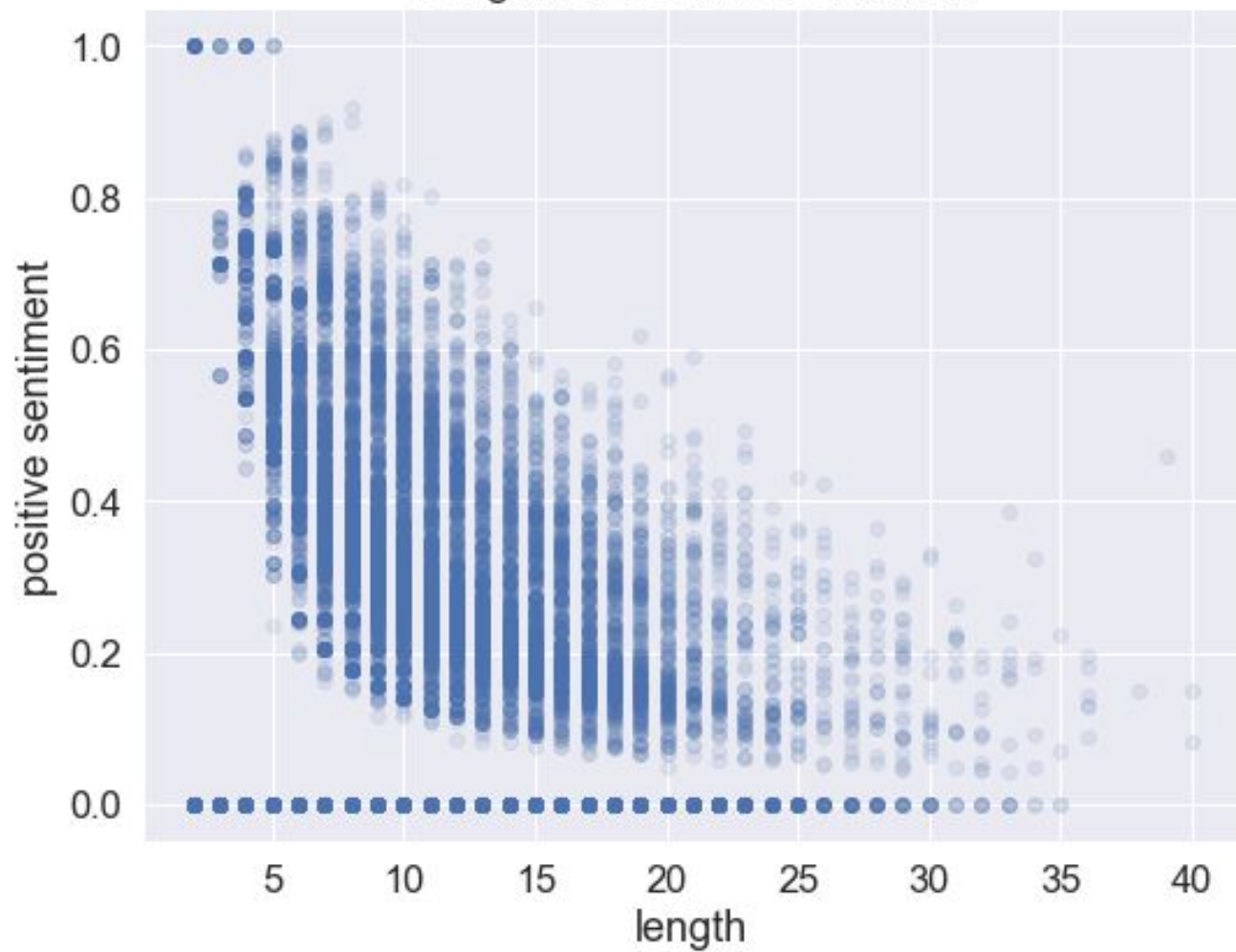   **sentiment score: -0.8863**
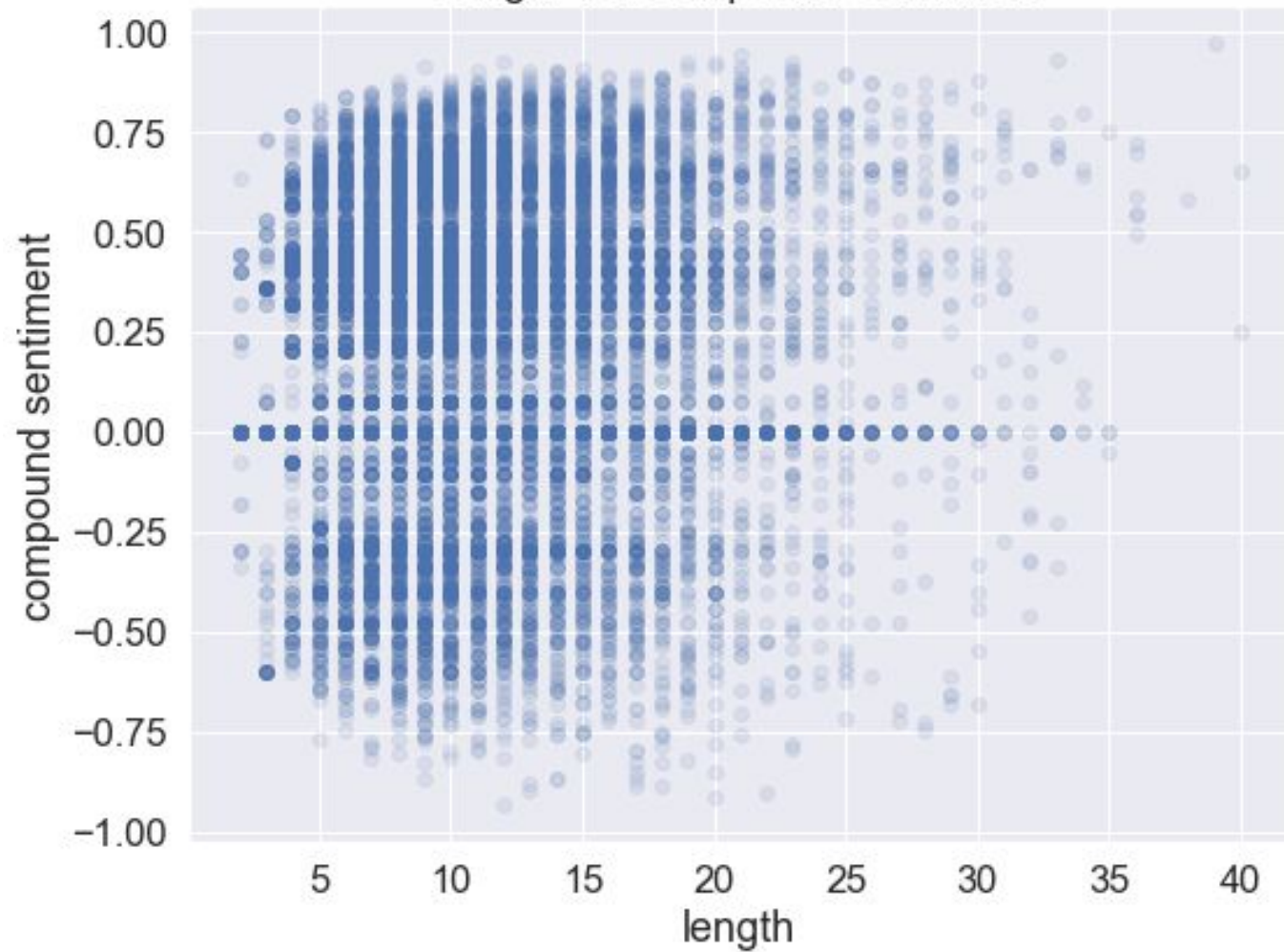
Length vs. Negative Sentiment
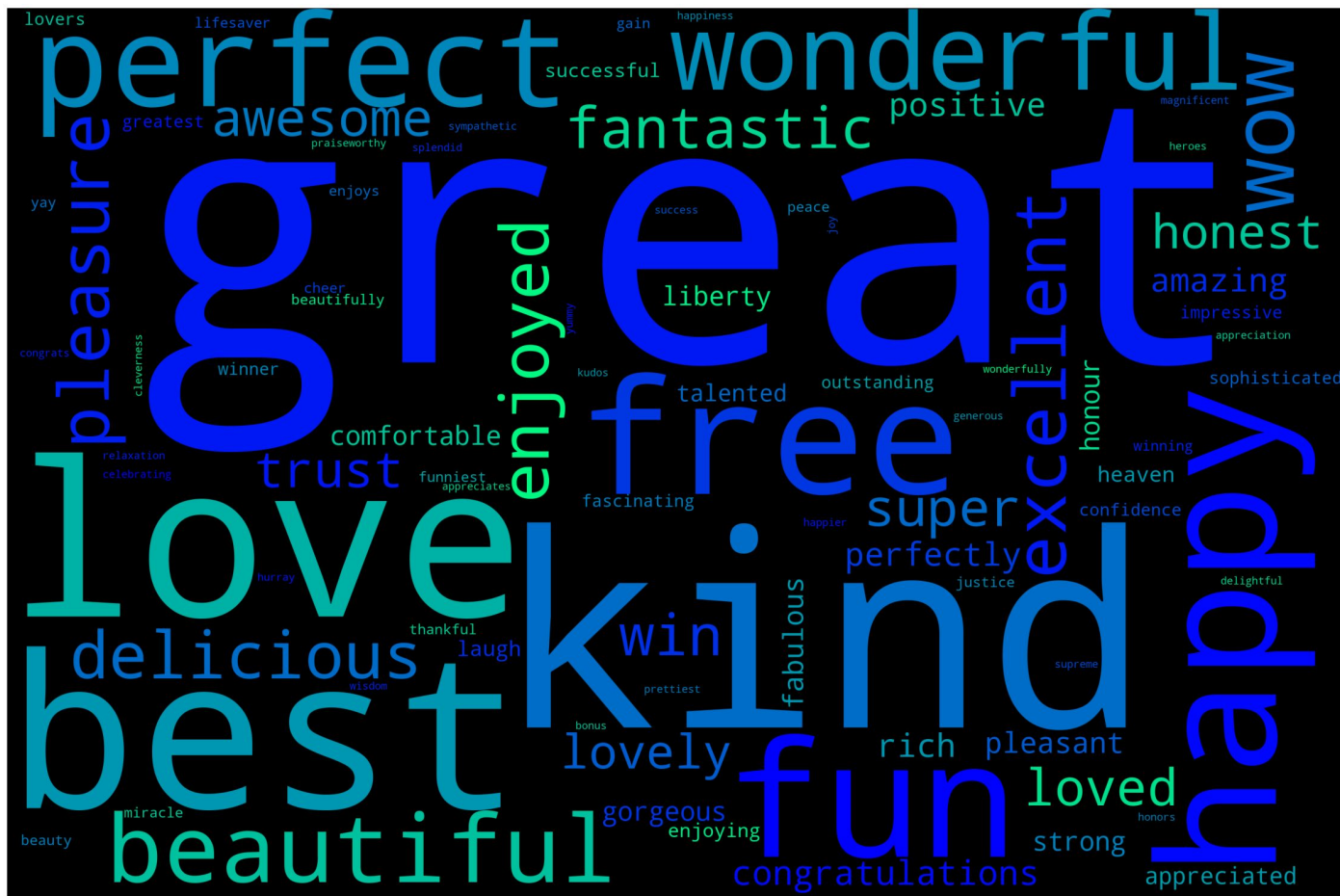
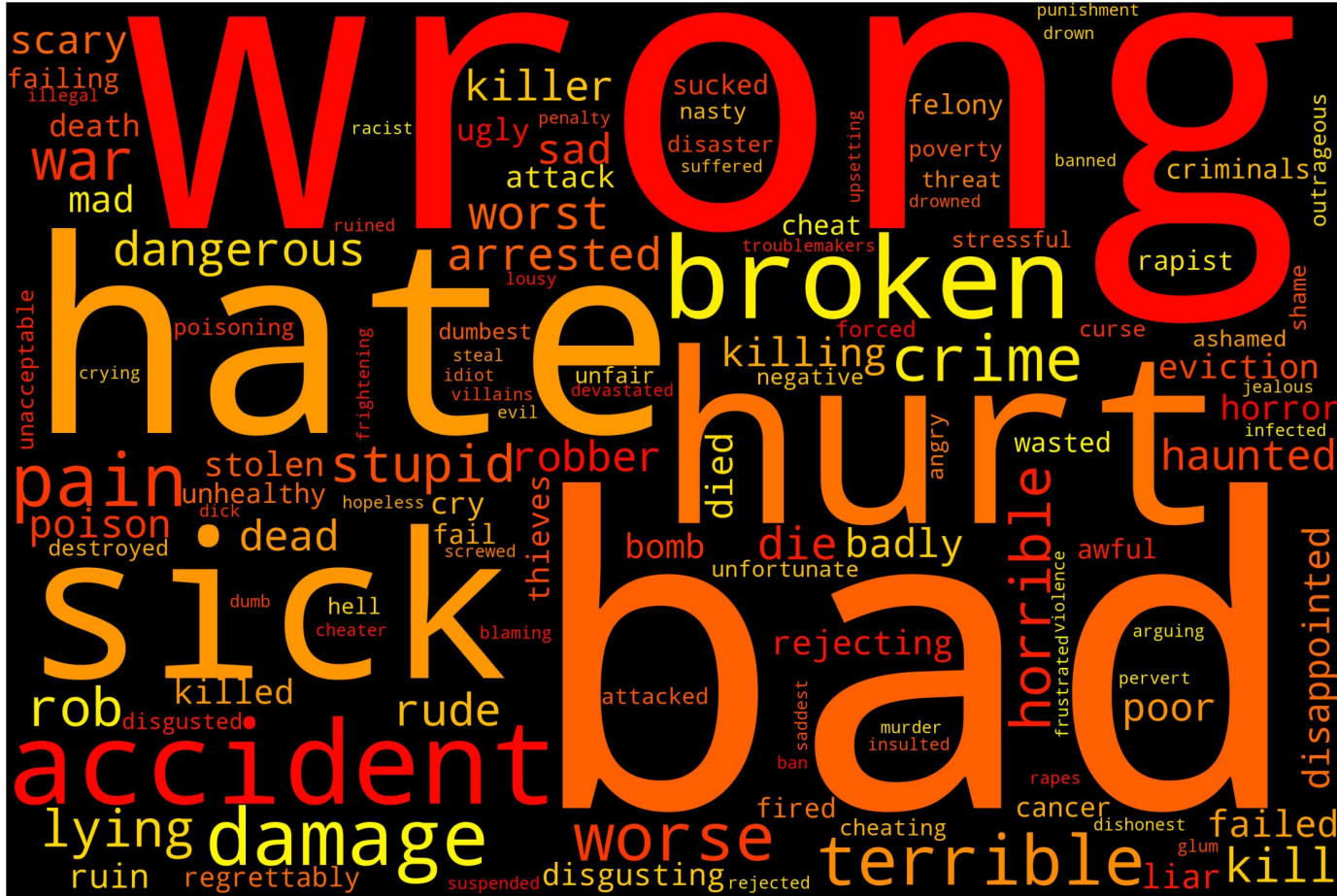Length vs. Neutral Sentiment

Length vs. Positive Sentiment

Length vs. Compound Sentiment

Word Cloud of the Most Positive Words

Word Cloud of the Most Negative Words

Samples of Conversation with Chatbots

Alan: Have you ever bought a car?
>>user: Yes, I buyed a Cadillac.
Alan: ** Yes, I bought a Cadillac. **
Alan: A luxury car.
>>user: define luxury
Alan: "luxury" means...
    - something that is an indulgence rather than a necessity
    - the quality possessed by something that is excessively
    expensive
    - wealth as evidenced by sumptuous living
>>user: What's for dinner?
Alan: I'm not sure.
>>user: How about a pizza?
Alan: You had pizza for lunch.
>>user: But I love pizza.
Alan: I had pizza for lunch yesterday.
>>user: i did'nt know you could eat
Alan: ** I didn't know you could eat **
Alan: hard to tell, i have never tried anything but electricity

Alma: Is Pasadena a big city?
>>user: Its pretty big.
Alma: ** It's pretty big. **
Alma: How big is "pretty big"?
>>user: I'm not sure
Alma: You should know that already.
>>user: Whats you problem?
Alma: ** What's your problem? **
Alma: I owe fees, but a bank statement never came in the mail about it.
>>user: Oh no!
Alma: I had to blow my nose.
>>user: Were you sick?
Alma: Even though I'm a construct I do have a subjective experience of the universe, as simplistic as it may be.
>>user: define simplistic
Alma: "simplistic" means...
    - characterized by extreme and often misleading simplicity

Acknowledgements

Sample ESL dialogues: www.eslfast.com

ESL discussion questions: iteslj.org/questions/getting.html

Speech bubble clipart: www.freepik.com