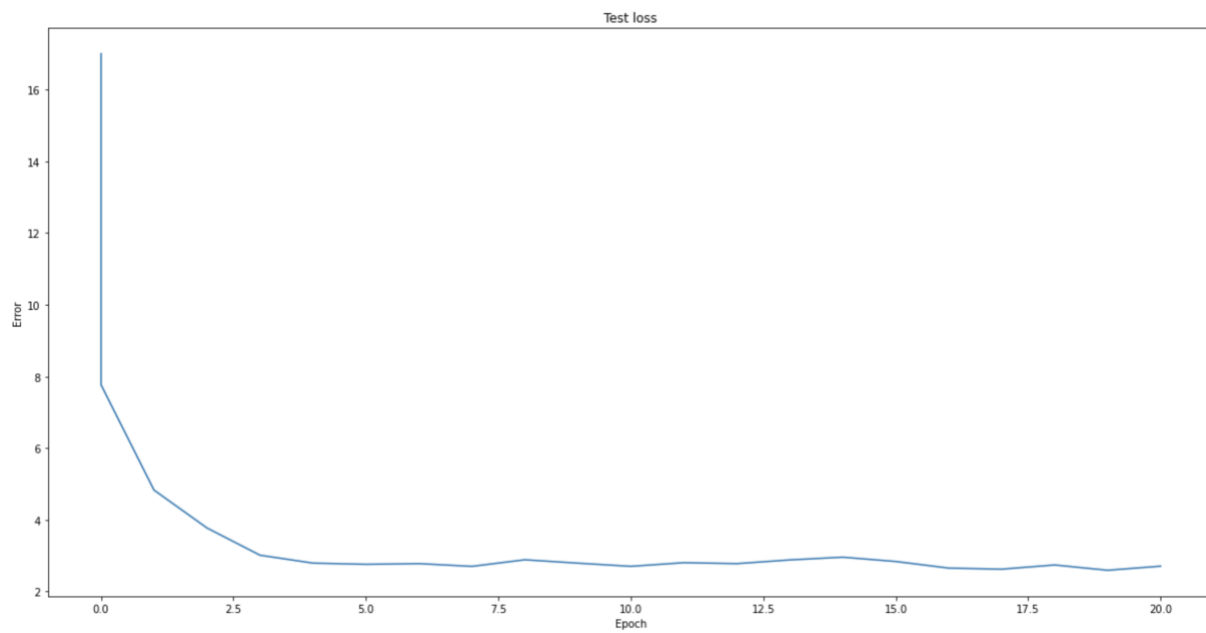
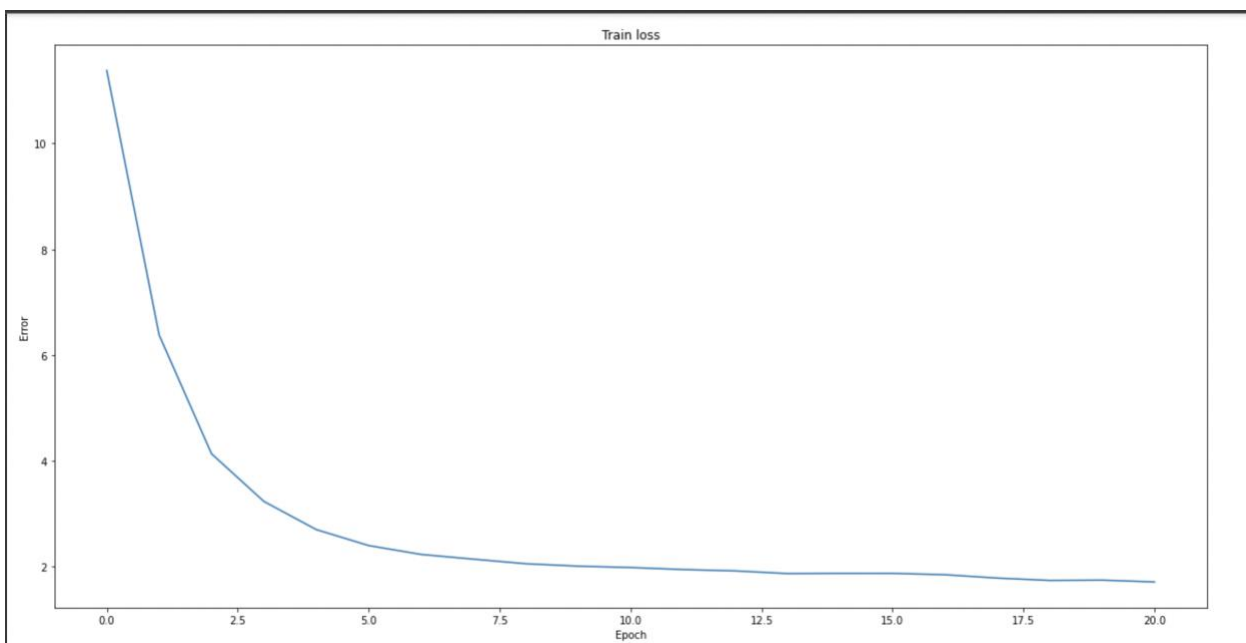
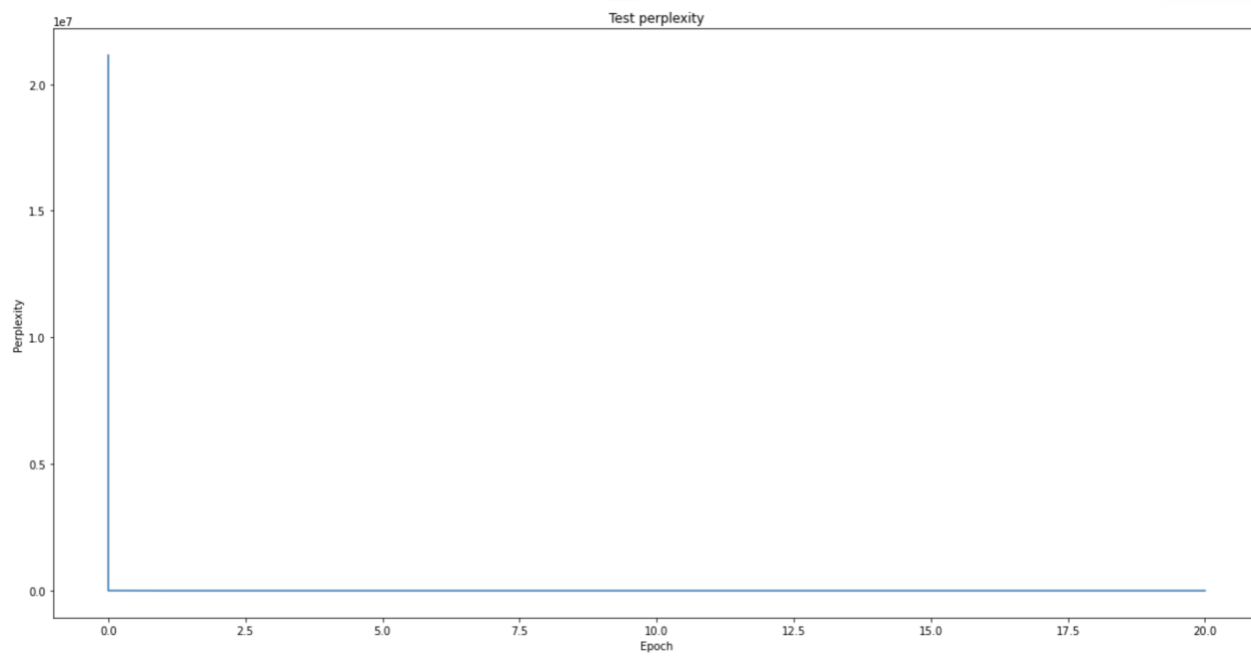
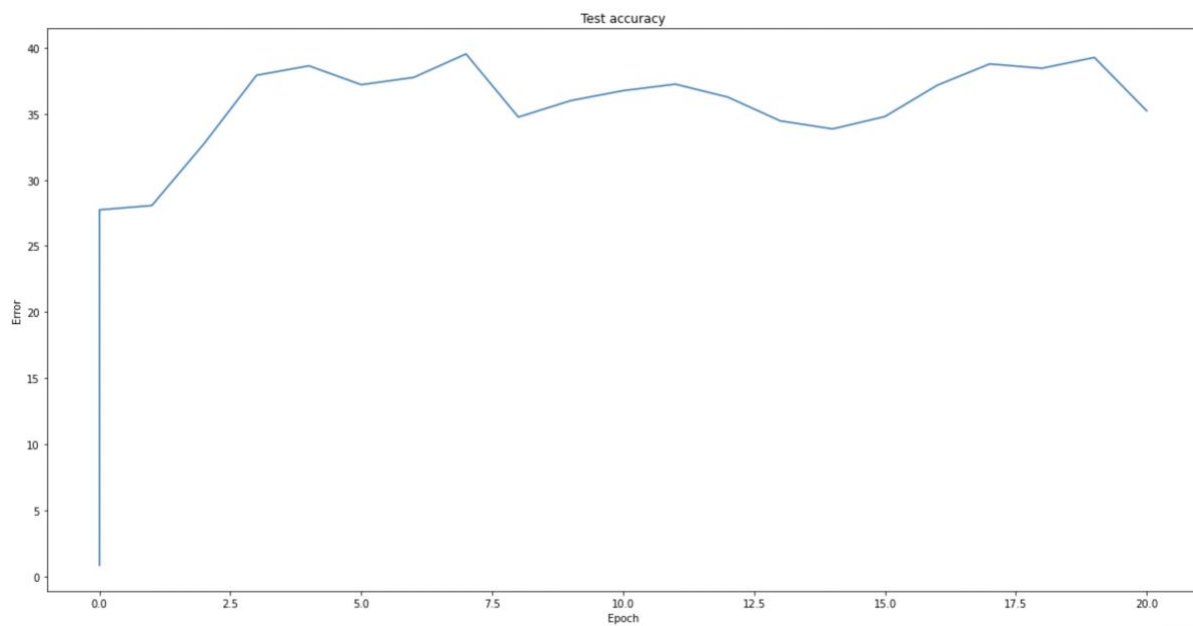
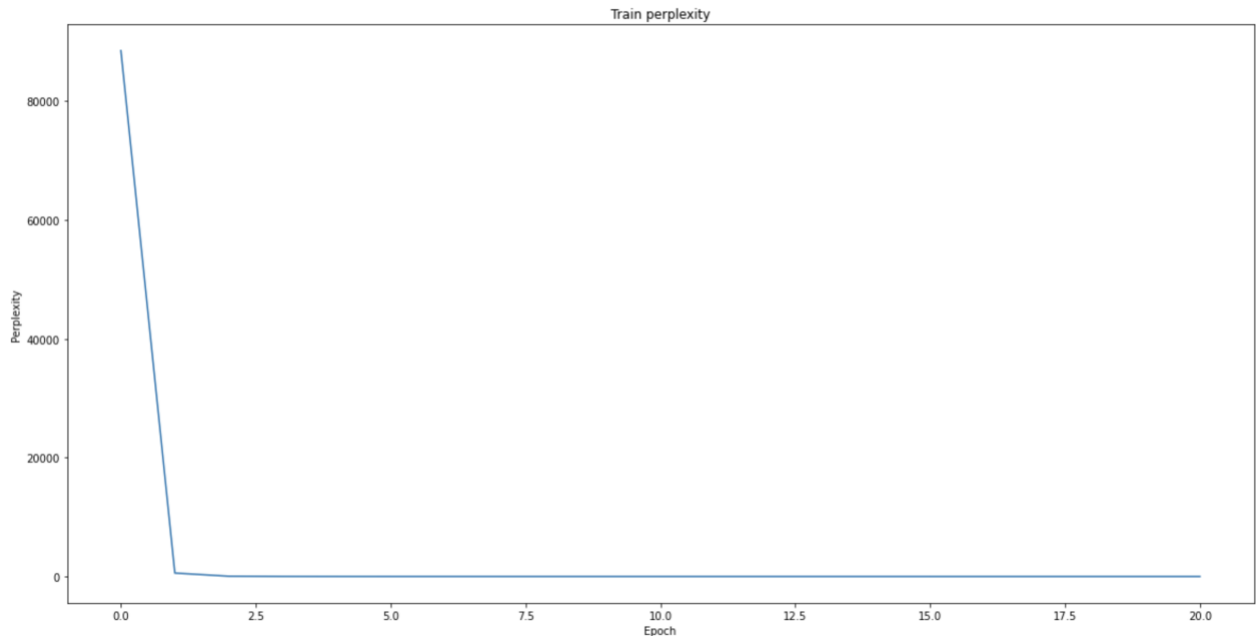


1.





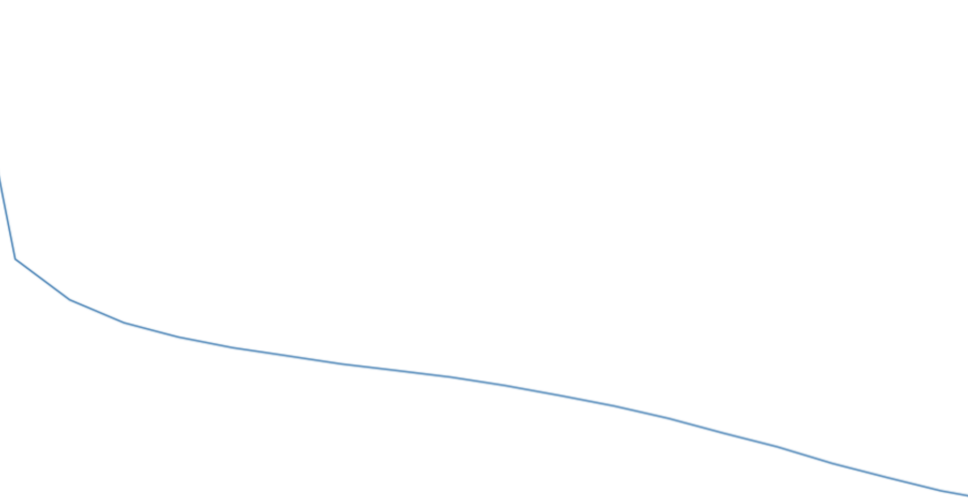


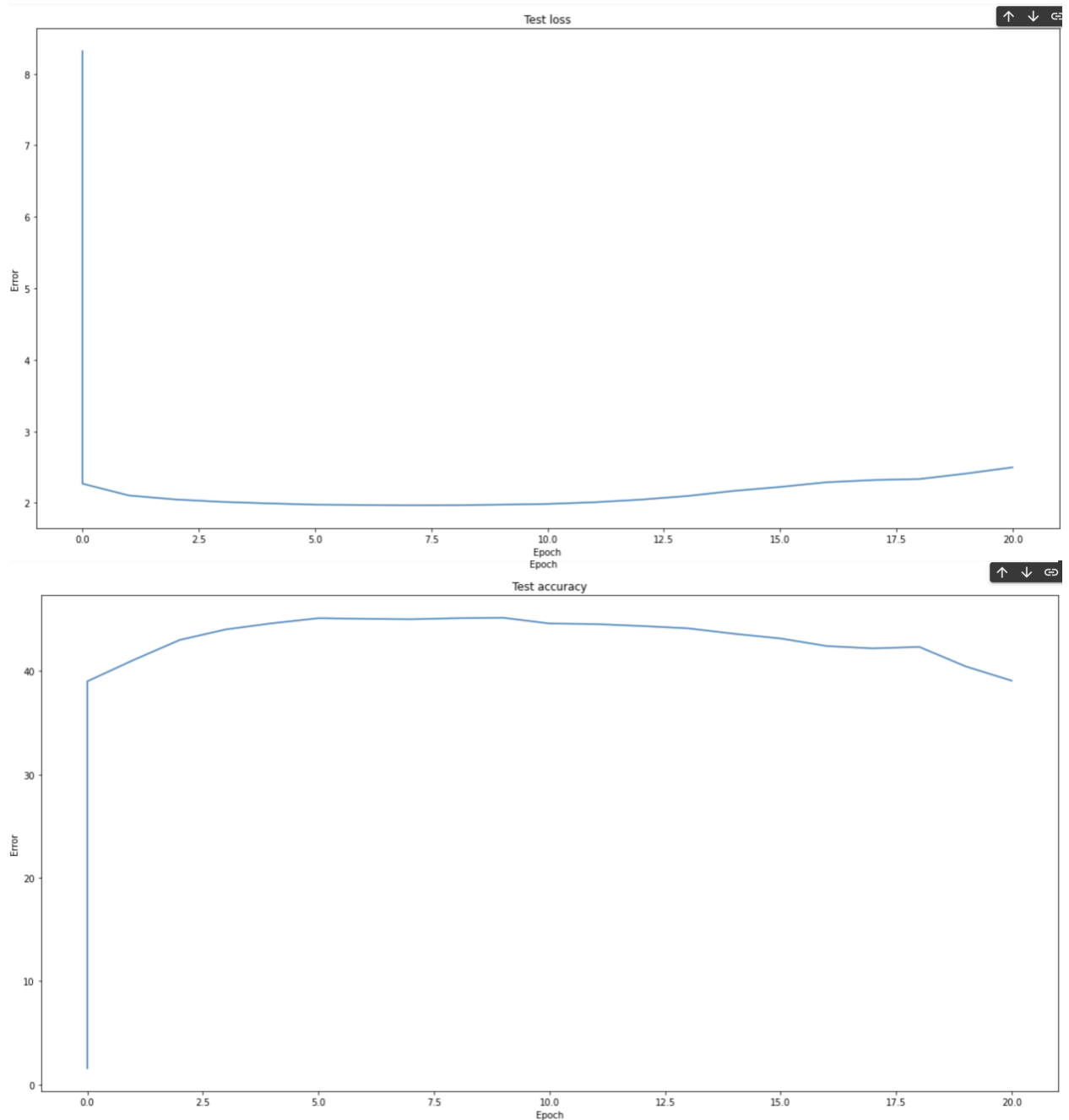
- [illegible]

New Corpus

1. Lord of the Ring; 1021830 chars
2. The new corpus did not return a single sentence that would make sense as comparison to the old corpus. It also did score a lower test accuracy.
3. Given: "Frodo Baggins, Saruman, and Gandalf walk into a pub."

- ## LSTM

- 
- The graph displays the training loss over 20 epochs. The y-axis, labeled 'Error', ranges from 1.0 to 3.0. The x-axis, labeled 'Epoch', ranges from 0.0 to 20.0. The loss starts at approximately 3.4 at epoch 0.0, drops sharply to about 2.15 at epoch 1.0, and then continues to decrease more gradually, reaching approximately 1.0 at epoch 20.0.
- | Epoch | Error |
|-------|-------|
| 0.0 | 3.4 |
| 1.0 | 2.15 |
| 2.0 | 1.95 |
| 3.0 | 1.85 |
| 4.0 | 1.78 |
| 5.0 | 1.72 |
| 6.0 | 1.68 |
| 7.0 | 1.64 |
| 8.0 | 1.61 |
| 9.0 | 1.58 |
| 10.0 | 1.55 |
| 11.0 | 1.52 |
| 12.0 | 1.48 |
| 13.0 | 1.44 |
| 14.0 | 1.38 |
| 15.0 | 1.32 |
| 16.0 | 1.25 |
| 17.0 | 1.18 |
| 18.0 | 1.12 |
| 19.0 | 1.06 |
| 20.0 | 1.0 |



3. Given: "Harry Potter, Voldemort, and Dumbledore walk into a bar."
 - a. Max: Harry Potter and them, will have to students in the one a blong of the stone and bearing on all his mand held wo betidg on his marks in all him. "You come of the stone and don's long to and going to snak he right and goo
 - b. Sample: Harry Potter and they and her with a roomsting the marking at the armis of his many of them. "You said though it morking. "You siden of hes thround him. "Ambling dog carle in all don and going Ploking close to staring in

- c. Beam: Harry Potter and them, will have to studn'ts seent fornin ate ot or than
with it ared of ter and to a liktor fir morminaly for a rid not at tiry to a fir yor to a
rittinn morn you nor you know tryint to a till room on he

Words

1. Modifying the dataset for considering words instead of characters was pretty time consuming, and also decline in the # of data, but surprisingly the accuracy did not drop as much as I thought.
2. 14403 words that are commonly used
3. Not necessarily. The same hyperparameters performed the best for me.