Results on our Trained Model

Size of training data = 100,000 lines

Size of test data = 25,000 lines

1. Dutch to English :

Cosine Similarity (on Training Data) = 0.875

Jaccard Coefficient (on Training Data) = 0.609

Cosine Similarity (on Test Data) = 0.792

Jaccard Coefficient (on Test Data) = 0.421

Snapshot of our results:

```
Dutch to English Translation

[61] sims.cosine_similarity(modeld2e.translate(dutchFile[:100000]),(englishFile[:100000]))

     0.8755235855315043

[62] sims.cosine_similarity(modeld2e.translate(dutchFile[100000:125000]),(englishFile[100000:125000]))

     0.7919813204806284

[63] sims.jaccard_coefficient(modeld2e.translate(dutchFile[:100000]),(englishFile[:100000]))

     0.6099786172487527

[64] sims.jaccard_coefficient(modeld2e.translate(dutchFile[100000:125000]),(englishFile[100000:125000]))

     0.4206376811594203
```

2. <u>English to Dutch</u> :

Cosine Similarity (on Training Data) = 0.714

Jaccard Coefficient (on Training Data) = 0.334

Cosine Similarity (on Test Data) = 0.671

Jaccard Coefficient (on Test Data) = 0.275

Snapshot of our results:

```
English to Dutch Translation

[57] sims.cosine_similarity((dutchFile[:100000]),modele2d.translate(englishFile[:100000]))

     0.7142237280976755

[58] sims.cosine_similarity((dutchFile[100000:125000]),modele2d.translate(englishFile[100000:125000]))

     0.6712285147879147

[59] sims.jaccard_coefficient((dutchFile[:100000]),modele2d.translate(englishFile[:100000]))

     0.33395643693107935

[60] sims.jaccard_coefficient((dutchFile[100000:125000]),modele2d.translate(englishFile[100000:125000]))

     0.27522469714732317
```