We used Wordnet synonyms for query expansion. Each query term is expanded with 2 synonyms to 3 terms. However, after experiment, query without expansion gives a better performance.

We can see from the figures below that searching with score adjustment for documents satisfying the phrasal query gives a better performance. Please see the readme and the code for details on the implementation of phrasal query ranking adjustment.

Text

Description automatically generated with medium confidence

*Figure 1. Leaderboard score with query expansion and phrasal query*

Text

Description automatically generated

*Figure 2. Leaderboard score with phrasal query but without query expansion*

Text

Description automatically generated

*Figure 3. Leaderboard score without query expansion or phrasal query*