

## Abstrak

Perkembangan teknologi digital telah mendorong munculnya berbagai aplikasi pembelajaran berbasis mobile, salah satunya adalah Mimo: *Learn to Code* yang membantu pengguna mempelajari bahasa pemrograman secara interaktif, namun beragam ulasan pengguna menuntut analisis sentimen yang lebih sistematis. Penelitian ini bertujuan mengidentifikasi kecenderungan opini pengguna terhadap aplikasi Mimo melalui pendekatan text mining dengan membandingkan dua kamus leksikon, yaitu lexicon Inset (*Indonesian Sentiment*) dan lexicon Senti Strength-Id. Tahap pelabelan sentimen dilakukan menggunakan lexicon InSet dan lexicon Senti Strength-Id, kemudian teks direpresentasikan menggunakan metode TF-IDF (*Term Frequency-Inverse Document Frequency*) sebelum diklasifikasikan dengan algoritma SVM. Metode TF-IDF diterapkan untuk mengekstraksi bobot kata sehingga dapat meningkatkan kinerja SVM dalam proses klasifikasi. Selain itu, teknik SMOTE (*Synthetic Minority Over-sampling Technique*) digunakan untuk mengatasi ketidakseimbangan kelas yang terbentuk pada data hasil pelabelan menggunakan lexicon Inset maupun lexicon Senti Strength-Id. Ulasan yang dianalisis berasal dari pengguna aplikasi Mimo, dan hasilnya menunjukkan bahwa kedua leksikon menghasilkan dominasi sentimen positif. Model berbasis SVM dengan representasi TF-IDF memberikan performa yang konsisten, di mana SVM Linear yang dilatih menggunakan data berlabel lexicon Senti Strength-Id menghasilkan akurasi tertinggi dengan akurasi 89,80% dibandingkan dengan Lexicon Inset dengan akurasi 89,14%. Secara keseluruhan, penelitian ini menunjukkan bahwa lexicon Senti Strength-Id lebih efektif dibandingkan lexicon Inset dalam mendukung kinerja SVM.

**Kata kunci:** Aplikasi Mimo, Lexicom Inset, Lexicon Senti Strength-Id, TF-IDF, Support Vector Machine.

## **Abstract**

*The development of digital technology has led to the emergence of various mobile-based learning applications, one of which is Mimo: Learn to Code, which helps users learn programming languages interactively. However, various user reviews require a more systematic sentiment analysis. This study aims to identify user opinion trends regarding the Mimo application through a text mining approach by comparing two lexicon dictionaries, namely the Inset lexicon (Indonesian Sentiment) and the Senti Strength-Id lexicon. The sentiment labeling stage was carried out using the InSet lexicon and the Senti Strength-Id lexicon, then the text was represented using the TF-IDF (Term Frequency–Inverse Document Frequency) method before being classified with the SVM algorithm. The TF-IDF method was applied to extract word weights so as to improve the performance of SVM in the classification process. In addition, the SMOTE (Synthetic Minority Over-sampling Technique) was used to overcome class imbalance formed in the data labeled using the Inset lexicon and the Senti Strength-Id lexicon. The reviews analyzed were from Mimo app users, and the results showed that both lexicons produced a dominance of positive sentiment. The SVM-based model with TF-IDF representation provides consistent performance, where Linear SVM trained using lexicon Senti Strength-Id labeled data produces the highest accuracy with 89.80% accuracy compared to Lexicon Inset with 89.14% accuracy. Overall, this study shows that the Senti Strength-Id lexicon is more effective than the Inset lexicon in supporting SVM performance. Keywords: Mimo application, Inset lexicon, Senti Strength-Id lexicon, TF-IDF, Support Vector Machine.*

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