

ABSTRAK

KELVIN AMZANI PASHA. Perbandingan IndoBERT Dan *Hybrid* IndoBERT-CNN Untuk Analisis Sentimen Komentar Youtube Tentang Penerapan Kembali Ujian Nasional. Dibimbing oleh NERFITA NIKENTARI, S.T., M.Cs dan NOVRIZAL FATTAH FAHMITRA, S.kom., M.Kom.

Penerapan kembali Ujian Nasional (UN) pada tahun ajaran 2025/2026 memunculkan berbagai opini masyarakat yang banyak disampaikan melalui komentar YouTube. Penelitian ini bertujuan membandingkan kinerja model IndoBERT dan *Hybrid* CNN-IndoBERT dalam analisis sentimen terhadap komentar masyarakat terkait kebijakan tersebut. Data yang digunakan sebanyak 4.904 komentar dari kanal berita di Indonesia yang dilabeli ke dalam tiga kelas sentimen, yaitu positif, netral, dan negatif. Data kemudian dibagi dengan rasio 80:10:10 untuk pelatihan, validasi, dan pengujian. Evaluasi model difokuskan ke metrik accuracy dan macro F1-score.

Hasil penelitian menunjukkan bahwa kedua model mampu melakukan klasifikasi sentimen dengan performa yang baik. Namun, model *hybrid* CNN-IndoBERT secara konsisten menghasilkan kinerja yang lebih baik dibandingkan model IndoBERT. Pada data validasi, model *Hybrid* CNN-IndoBERT memperoleh *accuracy* sebesar 76,73% dan *macro F1-score* sebesar 72,64%, sedangkan model IndoBERT memperoleh *accuracy* sebesar 74,90% dan *macro F1-score* sebesar 71,67%. Pada data pengujian, model *hybrid* CNN-IndoBERT kembali menunjukkan performa terbaik dengan *accuracy* sebesar 77,19% dan *macro F1-score* sebesar 74,08%, sementara model IndoBERT memperoleh *accuracy* sebesar 72,30% dan *macro F1-score* sebesar 69,14%. Hasil tersebut menunjukkan bahwa penambahan lapisan CNN pada IndoBERT mampu meningkatkan kemampuan model dalam mengklasifikasikan sentimen. Selain itu, hasil analisis sentimen menunjukkan bahwa sentimen positif menjadi sentimen yang paling dominan terhadap kebijakan penerapan kembali Ujian Nasional.

Kata kunci: Analisis Sentimen, IndoBERT, CNN, YouTube, Ujian Nasional

ABSTRACT

KELVIN AMZANI PASHA. *Comparison of IndoBERT and Hybrid IndoBERT-CNN for Sentiment Analysis of YouTube Comments on the Reimplementation of the National Examination. Supervised by NERFITA NIKENTARI, S.T., M.Cs and NOVRIZAL FATTAH FAHMITRA, S.kom., M.Kom.*

The reimplementation of the National Examination (UN) for the 2025/2026 academic year has generated various public opinions, many of which were expressed through comments on YouTube. This study aims to compare the performance of the IndoBERT and Hybrid CNN-IndoBERT models for sentiment analysis of public comments regarding this policy. The dataset consists of 4,904 comments collected from Indonesian news channels and labeled into three sentiment classes: positive, neutral, and negative. The data were divided into training, validation, and testing sets using an 80:10:10 ratio. Model performance was evaluated using accuracy and macro F1-score metrics.

The results indicate that both models achieved good sentiment classification performance. However, the Hybrid CNN-IndoBERT model consistently outperformed the IndoBERT model. On the validation set, the Hybrid CNN-IndoBERT model achieved an accuracy of 76.73% and a macro F1-score of 72.64%, while the IndoBERT model achieved an accuracy of 74.90% and a macro F1-score of 71.67%. On the testing set, the Hybrid CNN-IndoBERT model again demonstrated superior performance, achieving an accuracy of 77.19% and a macro F1-score of 74.08%, compared to 72.30% accuracy and 69.14% macro F1-score obtained by the IndoBERT model. These findings indicate that the addition of a CNN layer to IndoBERT improves its capability in sentiment classification tasks. Furthermore, the sentiment analysis results reveal that positive sentiment is the most dominant sentiment toward the reimplementation of the National Examination policy.

Keywords: Sentiment Analysis, IndoBERT, CNN, YouTube, National Examination