ABSTRACT

The development of digital technology and learning platforms in Indonesia has boldly changed the way of teaching and learning, such as the Sekolah.mu application. However, user reviews on the Google Play Store are often unstructured, making it difficult for application developers to evaluate applications effectively. Aspect-based sentiment analysis (ABSA) is needed to process unstructured review data into more specific information that includes aspects such as learning content, application performance, and user experience.

This study aims to apply aspect-based sentiment analysis to the Sekolah.mu application using the Convolutional Neural Network (CNN) algorithm. User review data taken from the Google Play Store is processed through several stages in Knowledge Discovery in Databases (KDD), then converted into a vector representation using the Word2Vec model. This vector representation is used to train the CNN model which is applied to two main tasks, namely sentiment classification and aspect classification.

The results of this study indicate that the CNN model successfully classifies sentiment with an accuracy of 82% to 89% for the three aspects analyzed. This study also creates a prediction application using Streamlit, which allows users to enter their reviews directly and then receive the results of the sentiment and aspect predictions from the reviews entered. This study is expected to contribute to the use of aspect-based sentiment analysis for gaining a deeper understanding of user opinions and to serve as a foundation for developing decision support systems on digital learning platforms such as Sekolah.mu.

Keywords—Aplikasi Sekolah.mu, Aspect-Based Sentiment Analysis, Convolutional Neural Network,* Streamlit, *Word2Vec.