

ABSTRAK

Rahma Maulida Hidayah (2026), “Penerapan Pembelajaran *Deep Learning* Menggunakan Mathpix Snip Berbasis *Convolutional Neural Network* (CNN) untuk Meningkatkan Pemahaman Konsep Matematis dan Penguatan Karakter Akhlak Mulia Peserta Didik”

Pembelajaran matematika inovatif sangat penting dalam memfasilitasi pemahaman konsep sekaligus memperkuat karakter peserta didik di era digital. Namun, dalam praktik pembelajaran matematika khususnya pada materi statistika penyajian data, masih banyak peserta didik yang kesulitan memahami konsep secara mendalam serta perlunya penguatan karakter akhlak mulia dalam proses belajar. Salah satu alternatif untuk mengatasi masalah tersebut yaitu dengan menerapkan pembelajaran *deep learning* menggunakan Mathpix Snip berbasis *Convolutional Neural Network* (CNN). Penelitian ini bertujuan untuk mengetahui efektivitas penerapan pembelajaran *deep learning* menggunakan Mathpix Snip berbasis CNN terhadap peningkatan pemahaman konsep matematis dan penguatan karakter akhlak mulia (kejujuran, kedisiplinan, dan ketelitian) peserta didik. Penelitian ini dilakukan di SMP Negeri 1 Ciomas dengan menggunakan metode kuantitatif eksperimen melalui instrumen tes kemampuan pemahaman konsep matematis dan instrumen non-tes berupa angket penguatan karakter akhlak mulia dengan skala Likert 1 sampai 4 yang dianalisis menggunakan perangkat lunak SPSS. Hasil penelitian menunjukkan bahwa penerapan pembelajaran *deep learning* menggunakan Mathpix Snip berbasis CNN berhasil secara signifikan dalam meningkatkan kemampuan pemahaman konsep matematis peserta didik pada materi statistika penyajian data. Selain itu, terdapat penguatan dan peningkatan yang positif serta signifikan pada karakter akhlak mulia peserta didik, khususnya pada aspek kejujuran, kedisiplinan, dan ketelitian selama proses pembelajaran berlangsung.

Kata Kunci: *Deep Learning*, Mathpix Snip, *Convolutional Neural Network* (CNN), Pemahaman Konsep Matematis, Karakter Akhlak Mulia.

ABSTRACT

Rahma Maulida Hidayah (2026), “Application of Deep Learning Using Mathpix Snip Based on Convolutional Neural Network (CNN) to Improve Mathematical Conceptual Understanding and Strengthen Students' Noble Character”

Innovative mathematics learning is crucial in facilitating conceptual understanding while strengthening the character of students in the digital era. However, in mathematics learning practices, particularly in data presentation statistics materials, many students still face difficulties in deeply understanding concepts, alongside the pressing need to reinforce noble character traits within the learning process. One alternative to address this issue is by implementing deep learning using Mathpix Snip based on a Convolutional Neural Network (CNN). This study aims to determine the effectiveness of implementing deep learning using CNN-based Mathpix Snip on the improvement of mathematical conceptual understanding and the strengthening of students' noble character (honesty, discipline, and precision). This research was conducted at SMP Negeri 1 Ciomas using a quantitative experimental method utilizing mathematical conceptual understanding tests and non-test instruments in the form of a noble character strengthening questionnaire with a 1-to-4 Likert scale, which was analyzed using SPSS software. The research results indicate that the implementation of deep learning using Mathpix Snip based on CNN was significantly successful in improving students' mathematical conceptual understanding of data presentation statistics. Furthermore, there was a positive and significant strengthening and improvement in the students' noble character, specifically in the aspects of honesty, discipline, and precision during the learning process.

Keywords: Deep Learning, Mathpix Snip, Convolutional Neural Network (CNN), Mathematical Conceptual Understanding, Noble Character.