

ABSTRAK

Maria Fatima Dineri De Jesus, 2024. Analisis Pengaruh Penggunaan Moodle Terhadap Hasil Belajar Mahasiswa Pada Masa COVID-19 Dan New Normal Menggunakan Teknik *Data Mining*. Tesis. Program Studi Magister Pendidikan Matematika, Jurusan Pendidikan Matematika Dan Ilmu Pengetahuan Alam, Fakultas Keguruan Dan Ilmu Pendidikan, Universitas Sanata Dharma, Yogyakarta.

Tujuan dari penelitian ini adalah untuk (1) mengetahui gambaran perbedaan pembelajaran saat pandemi covid-19 dan setelah pandemi (2) mengetahui ada atau tidaknya pengaruh aktivitas Moodle terhadap hasil belajar mahasiswa (3) mengevaluasi pengaruh persepsi mahasiswa terhadap penggunaan Moodle dalam model prediksi terhadap hasil belajar mahasiswa. Jenis penelitian yang digunakan adalah *mixed method*. Teknik analisis data yang digunakan adalah dengan memanfaatkan teknik *data mining* dengan penerapan empat algoritma, yaitu *Decision Tree*, *Random Forest*, *Multinomial Naïve Bayes*, dan *Gaussian Naïve Bayes*. Data dalam penelitian ini diperoleh dari mahasiswa S1 Pendidikan Matematika Universitas Sanata Dharma Angkatan 2020 dan 2023, yang berupa data Moodle, data nilai, dan data persepsi. Dari hasil penelitian diperoleh (1) terdapat perbedaan pembelajaran saat covid-19 dan setelah covid, yaitu saat covid-19 mahasiswa lebih banyak aktivitas di Moodle dan persentase kehadiran mahasiswa tinggi jika dibandingkan dengan pembelajaran setelah covid, selain itu perbedaan juga terdapat pada nilai tugas, nilai USIP, dan nilai UAS. (2) Tidak terdapat pengaruh aktivitas Moodle terhadap hasil belajar mahasiswa. (3) Hasil evaluasi menunjukkan tidak ada pengaruh persepsi mahasiswa terhadap hasil belajar.

Kata Kunci: *Data Mining*, Moodle, Hasil Belajar, Covid-19

ABSTRACT

Maria Fatima Dineri De Jesus, 2024. Analysis Of The Effect Of *Moodle* Usage On Student Learning Outcomes During Covid-19 And The New Normal Using Data Mining Techniques. Thesis. Master Of Mathematics Education Study Programme, Department Of Mathematics And Natural Sciences Education, Faculty Of Teacher Training And Education, Sanata Dharma University, Yogyakarta.

The objectives of this study were to (1) determine the description of the differences in learning during the covid-19 pandemic and after the pandemic (2) determine whether or not there is an effect of *Moodle* activities on student learning outcomes (3) evaluate the effect of student perceptions of the use of *Moodle* in the prediction model on student learning outcomes. The type of research used is mixed method. The data analysis technique used is by utilising data mining techniques with the application of four algorithms, namely *Decision Tree*, *Random Forest*, multinomial *Naïve Bayes*, and *Gaussian Naïve Bayes*. The data in this study were obtained from undergraduate students of Mathematics Education of Sanata Dharma University of the 2020 and 2023 cohorts, in the form of *Moodle* data, grade data, and perception data. From the research results obtained (1) there are differences in learning during covid-19 and after covid, namely when covid-19 students are more activity in *Moodle* and the percentage of student attendance is high when compared to learning after covid, besides that differences also exist in assignment grades, USIP grades, and UAS grades. (2) There is no effect of *Moodle* activity on student learning outcomes. (3) The evaluation results show that there is no effect of student perceptions on learning outcomes.

Keywords: Data Mining, *Moodle*, Learning Outcomes, Covid-19