

**WEB-BASED E-LEARNING SYSTEM DESIGN**  
**(Case Study: SMP Negeri 1 Sarmi)**

**Resthu Momole, Moh. Ali Romli.**

*Information Systems, Faculty of Science & Technology  
University of Technology Yogyakarta  
Jl. Ringroad Utama Jombor Sleman Yogyakarta  
E-mail: [resthujava045@gmail.com](mailto:resthujava045@gmail.com), [ali.romli@uty.ac.id](mailto:ali.romli@uty.ac.id)*

**ABSTRACT**

*SMP Negeri 1 Sarmi is one of the agencies operating in the education sector. Sarmi 1 Public Middle School is located in Mararena, Kec. Sarmi, Sarmi Regency, Papua, was established on November 7, 1983 with School Establishment Operational Permit Decree Number 0472/0/1983. Based on the results of observations and interviews with several administrators of SMP Negeri 1 Sarmi, there are obstacles when teachers cannot be present in the teaching and learning process so that the teaching and learning process cannot run properly. Students also cannot get the material they should get in the teaching and learning process. Based on the description of the problems faced by SMP N 1 Sarmi, the author proposes a solution in the form of using e-learning as a medium for collecting student assignments, as well as as a means for teachers to upload material and provide assignment grades. This e-learning system was created using a MySQL database, with system design using DFD, interface design, and system creation using HTML, PHP, CSS, and JavaScript. This system was tested using Black Box Testing of each existing process. The result of this research is an e-learning system as a learning tool for teachers to provide assignments, materials and grades as well as for students to collect assignments and access materials that have been uploaded by teachers in the e-learning system.*

**Keywords:** *Information Systems, E-Learning, Web, PHP, DFD.*