

# **DEVELOPMENT OF WEB AND ANDROID BASED LEARNING OUTCOME MONITORING SYSTEM AT SMKN 1 KOTA BIMA**

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## **ABSTRACT**

*In every teaching and learning process, the main objective is to achieve the learning outcomes set by the subject teacher. These learning outcomes are the targets that students and teachers want to achieve in learning a subject. To ensure that these learning outcomes are met, effective supervision from the school is needed. However, in its implementation, schools often face difficulties in supervising learning outcomes. Therefore, a solution is needed in the form of an application that can help monitor and ensure that learning outcomes can be achieved properly by teachers and students. The development process of this application uses the waterfall method, which is a systematic and structured software development method. In the data collection stage, documentation techniques are used to obtain the information needed in developing the application. This application is developed using Dart and PHP as the main programming languages. The resulting application has the ability to monitor quiz scores, assignment scores, student attendance levels, and teacher and student performance evaluations. One of the superior features of this application is the interactive and exciting discussion forum, which can be used by teachers and students to interact and share information related to learning materials. After going through the implementation and testing process, based on the test results that have been carried out by the author using observation and interview methods during the application implementation process, there are several potential developments to cover the possibility of users exploiting system loopholes or process algorithms used in the application. During the implementation process that has been carried out by the author to teachers and students in class X TKJ 1, the application will continue to require development and maximize the potential that has been produced by the application to assist schools in maximizing the output of vocational education and improving the output of learning outcomes for students.*

**Keywords:** *monitoring, teaching and learning activities, learning outcomes, web, mobile.*