

## ABSTRACT

In the process of moving goods often face obstacles, such as difficulty when moving heavy items. However, it can be solved by using a simple plane that pulley. Therefore, the importance of understanding and basic mechanical advantage pulley to the community, one of which at the junior high school students of class VIII who is studying mechanical pulley. however, to simulate the pulley is usually done manually student still limited by the available tools. so that the final project to design mechanical pulley simulation applications in the form of animation using Adobe Flash Professional CS6 and Actionscript programming language 2.0.yang learning about the mechanics of pulleys provide an interactive and educative as well without the use of tools or materials forming auxiliary pulley.

Application design is done by looking for information in advance of learning the mechanical pulley on the eighth grade junior high school students through browsing the internet, books study guide, and expert advice from the eighth grade junior high school teacher. After that, do alpha testing with black box testing method that works on the functional requirements of the software being built and beta testing is conducted objectively is directly to the user. In the beta testing for application usability level of research done by giving about Test Initial testing using simulation applications and granting pulley directly to the respondents about the Final Test. From the comparison of test scores beginning and end of the test could be concluded regarding the respondents understanding of the material hoists after using this application. Furthermore respondents were given questionnaires to assess the mechanical pulley simulation applications.

From the results of alpha testing can be stated that the application should run and run in accordance with the design and drafting. In the beta testing with a number of respondents indicated that 12 people can use the understanding of the respondents in the application by 66.7%, a display quality is very good judge of 58.3%, the assessment of understanding of the material after using the app for 58.3%, and the assessment of the usefulness of applications that assist in the learning process of 100%.

**Keywords: Application, Actionscript, pulley, Junior High School students Class VIII**