

ABSTRACT
IMPLEMENTATION OF WASTE SOLVING EDUCATION
GAMES BASED ON ANDROID

By

Rizal Wahyudianto
19102142

Following software development in general, game development still uses the Software Development Life Cycle (SDLC) method. In the implementation of SDLC, there are discrepancies in the stages of game development because SDLC is more intended as a software development method. Therefore the Game Development Life Cycle (GDLC) method was created which is specifically used as a game development method which has five stages, namely initiation, pre-production, production, beta and release. GDLC was chosen as a game development method using construct 2 which raised the theme of sorting waste. Garbage sorting was chosen as an interesting learning game because by applying an interactive approach through games, it is hoped that users can be more actively involved in understanding the important concept of waste sorting in an interesting and fun way. There are two stages of testing the game, namely alpha and beta. Alpha testing uses the blackbox method and beta testing uses the System Usability Scale (SUS) method. From the test results, an average value of 72 is obtained, which results from usability can be accepted by users or acceptable. In conclusion, the application of waste sorting learning media can be used as an effective learning media.

Keywords: *Educational Games, Sort Waste, Construct, GDLC, SUS, Android*