

PENGEMBANGAN PERANGKAT MONITOR AKTIVITAS JASMANI DIGITAL BERBASIS INTERNET OF THINGS

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ABSTRACT

Monitoring the physical condition of students while carrying out activities in Physical Education (PE) learning has not taken advantage of current technological developments. Teachers are still monitoring manually, both verbally and visually. The purpose of this research is to produce software that helps PE teachers monitor physical activity indicators based on the Internet of Things (IoT). The type of research that will be used is product-oriented Research and Development which refers to the steps (1) identification of potential problems, (2) information gathering, (3) product design, (4) product validation, (5) product revision, (6) product trial, and (7) final product. The expert subjects in this study were experts in the field of physical education materials, digital media, and information technology, while the test subjects were one teacher and junior high school students as many as 64 people. Data was collected using various instruments, namely: product assessment sheets, student, and teacher assessments. Data analysis was directed quantitatively in the form of percentage scores and analysis of the average difference test to see the effectiveness of the product. The results of this study are a software product that can be installed on a tablet/smartphone as a collective and real-time monitor of physical activity data (speed, number of steps, distance traveled, moving time). The product is considered feasible by experts and makes it easier for teachers to monitor students' physical activity during PJOK learning. The development of this product in the future needs to be done so that it can be widely used.

Kata Kunci: *Software, IoT, Monitor, Physical Activity*