

**PENGEMBANGAN SISTEM TES BERBASIS *ONLINE* PADA MATERI
GERAK MELINGKAR BERATURAN**

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ABSTRAK

Penelitian ini bertujuan untuk mengembangkan dan menguji kelayakan sistem tes berbasis *Online* materi Gerak Melingkar Beraturan sesuai standar kelayakan ISO-9126 sehingga dapat digunakan sebagai media penilaian hasil belajar siswa pada pembelajaran jarak jauh. Jenis penelitian ini adalah jenis penelitian R&D (*Research and Development*) dengan model pengembangan *ADDIE* (*Analysis, Design, Development, Implementation, Evaluate*). Subjek penelitian ini adalah seluruh siswa-siswi kelas X MIPA-1 SMA Negeri 2 Medan. Data penelitian diperoleh berdasarkan uji kelayakan sistem tes berbasis *online* sesuai dengan standar *ISO-9126* pada aspek *functionality, efficiency, probability* dan *usability*. Berdasarkan pengujian kelayakan sistem diperoleh hasil yaitu, pada aspek *Functionality* mendapatkan skor 100% yang artinya sistem dapat berjalan sesuai fungsi yang diharapkan, pada aspek *Efficiency* yang dilakukan mendapatkan grade A yang artinya tingkat *efficiency* sistem tes berbasis *online* berada pada hasil sangat baik, pada aspek *Probability* menunjukkan sistem dapat berjalan pada berbagai browser baik mobile maupun desktop yang artinya sistem memenuhi standar kelayakan pada aspek *probability*, dan hasil yang didapat berdasarkan pengujian aspek *Usability* pada guru mendapatkan skor 96,43% dan pada siswa sebesar 98,43% yang artinya sistem mudah untuk dipahami, dipelajari, digunakan dan menarik. Berdasarkan hasil tersebut dapat disimpulkan bahwa sistem tes berbasis *online* pada materi gerak melingkar beraturan memenuhi hasil pengujian kelayakan sistem sehingga dapat digunakan sebagai media untuk mengukur dan menilai hasil belajar siswa pada pembelajaran jarak jauh.

Kata Kunci : *Penelitian Pengembangan (R&D), Model ADDIE, Standar ISO-9126, Sistem Tes Online*

DEVELOPMENT OF ONLINE-BASED TEST SYSTEMS ON IRREGULAR CIRCULAR MOTION MATERIALS

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ABSTRACT

This study aims to develop and test the feasibility of online-based test system of Regular Circular Motion materials according to ISO-9126 eligibility standards so that it can be used as a medium for assessing students' learning outcomes in distance learning. This type of research is a type of R&D (Research and Development) research with addie development model (Analysis, Design, Development, Implementation, Evaluate). The subjects of this study were all students of grade X MIPA-1 SMA Negeri 2 Medan. The research data was obtained based on the feasibility test of an online-based test system in accordance with ISO-9126 standards on the aspects of functionality, efficiency, probability and usability. Based on the feasibility test the system obtained results that is, in the aspect of Functionality get a score of 100% which means the system can run as expected function, on the efficiency aspect that is done get a grade A which means the level of efficiency of the online-based test system is at a very good result, on the aspect of Probability shows the system can run on various browsers both mobile and desktop which means the system meets the feasibility standards on the probability aspect, and the results obtained based on the testing aspects of Usability in teachers get a score of 96.43% and in students of 98.43% which means the system is easy to understand, learn, use and interesting. Based on these results, it can be concluded that the online-based test system on regular circular motion materials meets the results of the system feasibility test so that it can be used as a medium to measure and assess students' learning outcomes in distance learning.

Keywords : *Research and Development (R&D), ADDIE Model, ISO-9126 Standard, Online Test System*