PENGEMBANGAN E-LKPD INTERAKTIF BERBASIS *SCAFFOLDING* PADA MATERI BARISAN DAN DERET ARITMATIKA KELAS XI

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ABSTRAK

Pembelajaran abad 21 mengedepankan pembelajaran yang berpusat pada peserta didik dengan tidak semata mengutamakan kecerdasan kognitif, namun juga penguasaan keterampilan yang bermanfaat untuk bersaing di era ini. Merujuk pada hal tersebut, penelitian ini bertujuan untuk mengembangkan bahan ajar interaktif berupa E-LKPD berbasis *scaffolding* dengan bantuan *Liveworksheet* pada materi Barisan dan Deret Aritmatika sebagai solusi dalam penyediaan bahan ajar yang berorientasi pada tuntutan pembelajaran abad 21. Jenis penelitian ini adalah penelitian dan pengembangan (R&D) dengan model pengembangan ADDIE (*Analyze, Design, Development, Implementation, Evaluation*), yang dalam penelitian ini hanya terbatas sampai pada tahap uji coba terbatas untuk mengetahui kriteria validitas dan kepraktisan dari bahan ajar yang dikembangkan. Berdasarkan uji validitas media oleh 2 validator, diperoleh rata-rata persentase validitas 97%, dan uji validitas materi oleh 2 validator memperoleh rata-rata persentase validitas 88%. Selain itu, dari hasil uji coba terbatas kepada pendidik dan peserta didik SMA Negeri 1 Negara kelas XI dalam mengetahui tingkat kepraktisan juga memperoleh hasil persentase kepraktisan 100% untuk angket respon pendidik dan 87% untuk angket respon peserta didik. Dengan demikian, disimpulkan bahwa E-LKPD interaktif berbasis *scaffolding* pada materi Barisan dan Deret Aritmatika kelas XI memenuhi kriteria validitas dan kepraktisan dengan implikasi bahan ajar yang dikembangkan ini dapat digunakan sebagai salah satu alternatif bahan ajar selama pembelajaran.

Kata Kunci: E-LKPD, bahan ajar interaktif, *scaffolding*

DEVELOPMENT OF DIGITAL-INTERACTIVE STUDENT WORKSHEET BASED ON SCAFFOLDING ON ARITHMETIC SEQUENCES AND SERIES MATERIAL FOR IX GRADE STUDENTS

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ABSTRACT

Learning activity in the 21st century in the current era of technological development was required the students not only prioritize cognitive intelligence but also master of beneficial skill, therefore; it was needed learning innovation, one of them was through digital student worksheet innovation. The aim of the research was to develop digital interactive student worksheet based on scaffolding Liveworksheet assisted which has validity and practically criteria. The design of the research was research and development which was used ADDIE model, where in the research has limitation on development stage to determine the validity and practicality of digital student worksheet according to the results of limited trials to test subjects which were consisted by validators, mathematics teacher, and students. The research instrument used was media and material validation sheet as well as questionnaire for the responses of mathematics teacher and students. The result was shown that digital interactive student worksheet based on scaffolding assisted by Liveworksheet was categorized as very valid in terms of media with 97% validity percentage and material 88% validity percentage. The digital student worksheet also fulfilled practical criteria with very practice category based on questionnaire of mathematics teacher and students with 100% practicality percentage from mathematics teacher and 87% from students. The implication from this research that digital interactive student worksheet based on scaffolding assisted by Liveworksheet is feasible to be used as one of alternatives teaching materials that can use in mathematic learning, especially for learning activity.

Keywords: digital student worksheet, interactive teaching materials, scaffolding