THE EFFECTIVENESS OF STEM BASED TEACHING IN DEVELOPING PROBLEM SOLVING SKILL AMONG HIGH SCHOOL STUDENTS

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ABSTRACT_ This study investigates the effectiveness of STEM-Based teaching in improving problem solving skill among high school students. STEM approach is considered one of the curriculum designs that adopts a blended mixture of science, math, technology and engineering as it focuses on student-centered learning and problem solving skills as well. A group of problems that require knowledge and skills of science, technology and engineering within an IT context have been identified. Then a test that consists of 10 open-ended questions has been developed to measure students' abilities to solve these problems. This study is designed based on a semi experimental approach which targets one group in a pre and post tests. A purposeful sample of participants consists of 30 intermediate stage female students. The pre and post tests were given to the participants preceded by validity and reliability verifications. Findings indicated a significance effectiveness of STEM-based teaching in improving the students' problem solving skill.

KEYWORDS: STEM, blended curricula, problem-solving, high school students.