From Angry Bird Application to STEM Activities in Real Life

Tannirat, T.

Education Faculty, Bansomdejchaopraya Rajabhat University, Bangkok, 10600 Thailand
thidarat.ta@bsru.ac.th

Abstract
Science, Technology, Engineering and Mathematics Education: STEM is an integration of 4 subjects for students to learn knowledge and improve skills for their daily life. One of the most important skills in STEM instruction is systematic thinking to solve challenging problems which can be created by using entertaining instructional media such as multimedia and games. The purpose of this study is to investigate the results of applying the Angry Bird application as a learning instrument for teaching elementary school students. The population of the study consists of 902 elementary school students from 10 schools under The Bangkok Metropolitan Administration, Thailand. As for the data quality, there was a collection of in-depth interview coming from 20 teachers and 40 students. In this study, it was found that most of the students have used the Angry Bird application. When the rules were explained, the students worked together to plan, analyze, practice and solve problems until they meet the goal. The result found that instructional media can create an opportunity for students to work and solve problems together. Also, this application is really recommended to teachers for using to improve the student's skills such as communication skills, critical thinking skills and daily living skills.

Keywords— Application, Game, STEM, Active learning

I. INTRODUCTION

Science, Technology, Engineering, and Mathematics (STEM) have been being the foundation for discovery and technological innovation. Individual success in the 21st century economy is also increasingly dependent on STEM literacy; simply to function as an informed consumer and citizen in a world of increasingly sophisticated technology requires the ability to use digital devices and STEM skills such as evidence-based reasoning. STEM education can be successful by considering student factors. The activities need to engage students where disciplines converge and build computational literacy which is also entertaining to keep student's focused on the learning process. (The committee on stem education of the national science & technology council, 2018)[1].

Fig. 1 Angry Birds Application