Abstract
Game is an application that is popularly used in teaching and learning by some of educational institution to-date. Educational game is a term that represents game being used for teaching and learning. Online Educational Game Evaluation System (eGES) is a system, being designed and developed to evaluate educational game during development processes. The evaluation process, known as formative evaluation is deliberately conducted to detect usability problems and they are usually identified at earlier stage of development processes of the game. Conversely, the improvement and enhancement of the game could be carried out much earlier before it is ready for release. eGES focuses on two techniques based on two types of evaluators; the expert evaluators and real users. Expert evaluators are the person who has knowledge and experience in conducting evaluation on several specific categories such as interface, pedagogical, content, playability and multimedia. The technique that uses expert evaluator as a main role is known as Playability Heuristic for Educational Game (PHEG). Meanwhile, real users are the targeted group of users for which the educational game is developed. These users will be the respondents for the evaluation that use an evaluation technique known as Playability Assessment for Educational Game (PAEG). These two evaluation techniques merged into a comprehensive evaluation using eGES that able to identify most of the usability problems found in any evaluation process. The novelty of eGES is it has its own evaluation techniques and the system may be made available for two types of evaluators simultaneously. eGES has a potential to be commercialized to the educational game developers or game producers. With minor modification to the system, eGES can also be used to evaluate other types of application such as ecommerce websites, virtual reality applications and organization websites.

Keywords: Educational game, formative evaluation, playability, expert evaluators and real user.