

CONFERENCE PROCEEDING

A Case Study of In Identifying the Perception in Crypton Heroes

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Abstract

Gaming approach has taken steps to keep pace with the development of Education 4.0 in the era of globalisation. The application of game-design elements had built an interactive environment of learning that inspired students to discover and explore numerous things in fascinating approaches. Therefore, this study has been done to identify the perception among the secondary school students towards the Crypton Heroes, a video game based on RPG that develop based on the element of cryptography and a minor English element. This study has been conducted through a survey to the secondary school students in Selangor. The age of the students involved is between 13 until 17 years old. Based on the survey that has been held, the result showed that most students enjoy and understand the content of the Crypton Heroes. It can be concluded that Crypton Heroes has received favourable responses, and the students were able to learn efficiently in an engaging method.

Keywords: *cryptography, RPG, gaming, education*

INTRODUCTION

Games are a valuable tool for learning that has been used in computer science education in a range of ways. The most significant concept is that students are challenged to develop a winning strategy for the games and are taught to develop and prove their strategies using loop invariants (Sakalli et al., 2004). There is an exponentially growing interest in games in education due to the 21st generation that has grown up with computer games and other technology (McClarty, 2012). This generation prefers collaborative, active and technology-rich learning which involve usage of computer use. Hence, gaming is then proposed as an alternative teaching method to fulfil their requirements. Therefore, this study proposed a gaming named Cypton Heroes. Crypton Heroes is a video game based on RPG that develop based on the element of cryptography and an idiom of English topic. The unique component of RPG is (1) storyline and character development, (2) battle system and (3) menu system where the player can see all view of the game. Crypton Heroes aim to implement the gaming concept in delivering the cryptography concept (Edge and O'Donnell, 2016) as an early introduction to the security of the data that necessary should be known for secondary school. This study aims to identify the perception of secondary school students towards Cypton Heroes as an alternative approach in learning English as well as cryptography.

METHODOLOGY

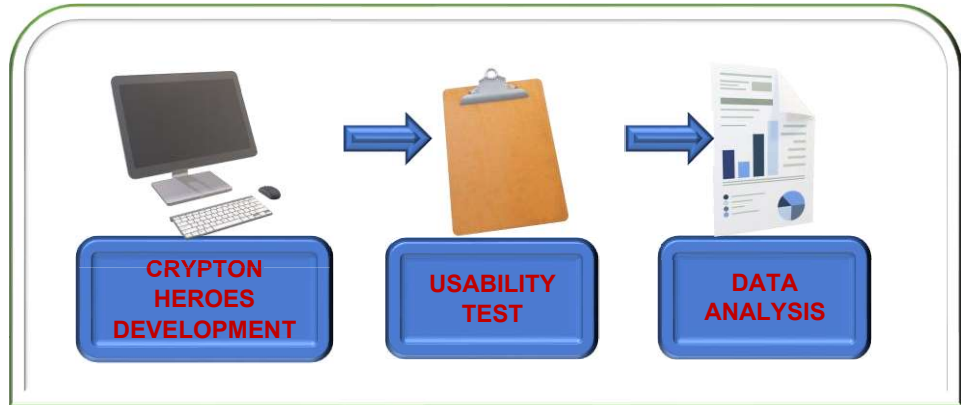


Figure 9. Flowchart of Methodology

There are three phases to achieve the purpose of this study, based on the flowchart in Figure 1. The first phase is the development of Crypton Heroes, which has created using RPG Maker MV. In the second phase, the usability test was performed among 28 students from a secondary school in the Selangor region. Students must first play Crypton Heroes and must answer the questionnaire after playing Crypton Heroes based on their views. The third phase is analysing the data based on the number of students who participated in this survey.

RESULTS AND DISCUSSION

The outcome of the usability test indicates that the way the Crypton Heroes were developed was satisfied by most of the secondary school students. Figure 2 showed the number of students regarding their level of satisfaction after playing the Crypton Heroes. Fourteen (14) students Strongly Agree, followed by five (5) students who Agree and Neutral, respectively, when playing the Cyrpton Heroes. At the level of Disagree and Strongly Disagree, after playing Crypton Heroes, each reveals only two (2) students are not satisfied.

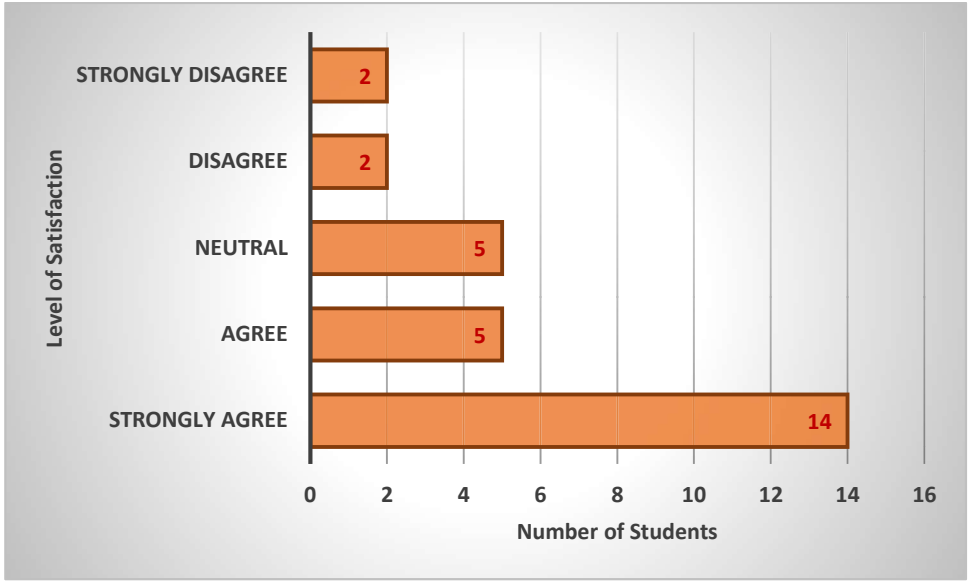


Figure 2. Level of Students' Satisfaction

CONCLUSION

The results showed Crypton Heroes game could be an alternative method of learning English and the comprehend the cryptography among secondary school students. Gamification in education demonstrated a significant boost in the productivity and morale of students. It would be a good prospect for the future of education.

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