

# S.A.Q RPG (Sejarah Awesome Quest Role-Playing Game): History Subject Educational Game for Young Learner

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**ABSTRACT:** History subject is one of the subjects required to pass the Sijil Pelajaran Malaysia (SPM) examination set by the Ministry of Education Malaysia (MOE). With rapid technology growth, more educational uses and dedicated virtual worlds focused on education will begin to evolve, encouraging new and more advanced learning scenarios, allowing the development of analytical skills and greater reflection. History is often associated as a dry and boring subject due to the high factual content and horizontal storytelling in the classroom resulting in the subject of history as one of the subjects that are less preferred by students. To overcome this situation, a game-based learning is a good approach in line with the development of technology today. S.A.Q RPG (*Sejarah Awesome Quest Role-Playing Game*) is a game-based learning medium which focus in using game to familiarize and increase students understanding of history concept. This game is built by using ADDIE (*Analysis, Design, Development, Implementation and Evaluation*) model and the development is done by using Unity software. A survey will be done for 40 students in the evaluation stage to assess effectiveness of the proposed game. It is believed that historical educational games can be used as an opportunity to facilitate the study of history in an enjoyable atmosphere.

**Keywords:** *conceptual; education; game-based learning*

## 1. INTRODUCTION

The History subject plays an important role in instigating students' spirits of patriotism; to cultivate and instill love for one's country and to make one genuinely a patriot. The lack of creativity in teaching history contributed to students becoming bored and losing interest in the subject[1]. An interactive game-based educational program can promote learning processes in particular not only among young learners[2], [3]. The S.A.Q RPG (*Sejarah Awesome Role-Playing game*) method employs the game as a medium to convey learning contents.

In recent years, the development of IT has brought about educational reforms, and not only lifestyle changes. It fosters the web-based problem-solving skill of students, which focuses on the ability to articulate objectives to address a set of questions posed for specific topics[4]. Games have been seen as a kind of computer

system which engages players in fun activities following a range of rules to achieve certain challenging goals. Various attempts are made to create educational computer games for a number of disciplines, including language, mathematic[5], science [6], and etc. [7] and even history[8]. However, based on literature review that was conducted, it is concluded that there are limited study focused on history subject game-based in Malaysia. Educational games may provide a rich learning atmosphere with challenging learning missions to promote higher-level students' awareness and skills.

This study aimed to promote students' learning performance and flow experience by using educational game approach. The objectives of this study are: to propose a personalized a history-based educational game for secondary school history subject, to improve students' learning achievements in history-based educational game and to promote students' learning attitudes toward history subject.

## 2. METHODOLOGY

The development of the game is by using ADDIE framework as used in [9]. ADDIE, stands for Analysis, Design, Development, Implementation and Evaluation, is an establish method that is frequently used in creating the design for education content.

There are several stages are involved in the game development stages:

- The game theme and goal of the game are defined. The theme is education game focused for study to learn history.
- The game contents are identified which align with the goal and theme of the game. Form 4 KKSM history text book is used are the reference for the game design.
- The main storyboard is design to define the flow of the game. The characteristics of each event, consisting of date, place and time, must be appropriately planned and not deviated from the original historical details set out in the history syllabus. To complete the learning mission, the student needs to finish the quest and finish several tests during the journey. By using their avatar, the student can move around in the game, participate in the activities and explore different

quest (see Fig. 1). While travelling in the game world to finish their quest, the student can read and listen stories and explanations from the NPC (non-player character). Quizzes and notes are also included in the game for students learning and references (see Fig. 2).

- Development tools to be used is also important to increase the efficiency in design and timeline. Unity is chosen to build the game due to its versatility and practicality for rapid prototyping.
- Implementation stage is when the design and concept is visualizing and projected in the game interface.



Fig.1 Game Interface



Fig.2 Quiz and Notes Interface

### 3. RESULT AND DISCUSSION

In order to assess the effectiveness of the game based on user perspective, a questionnaire will be distributed among 40 students from form 4 and form 5. There are three dimensions to be assessed in this evaluation which are usability of the game, the content of the game and the impact of the game on the students understanding.

Table 1 Dimension of Players Evaluations

Dimension	Factors
Usability	Self-learning capability, ease of use and enjoyment
Content	Extensiveness, relevancy and demonstrations
Impact	Perceived of usefulness

### 4. CONCLUSION

With the rapid growth of technology, more educational uses and dedicated virtual worlds based on education will continue to emerge, promoting different and more specialized learning scenarios, enabling the development of conceptual skills and greater reflection. Furthermore, in the future, we expect to test the approach of this study with long-term and large-scale experimentation; in addition, we will improve the

educational computer game by offering more individual support for students and delivering more content in the future. This program expected to incite the student passion in learning history therefore to be invested in their learning process. Education games are now an enormous research which allows students to understand knowledge while playing in an interactive gaming experience.

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