**THE DEVELOPMENT OF CROSSWORD GAMES AS TEACHING TOOL
FOR FORM 5 HISTORY SUBJECT**

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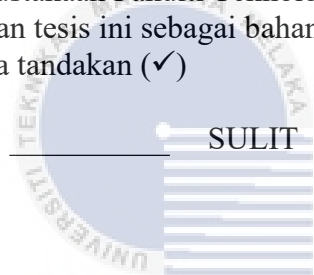
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THE DEVELOPMENT OF CROSSWORD GAMES AS TEACHING TOOL FOR FORM 5 HISTORY SUBJECT

NURUL AFIFAH BINTI AZIZ

This report is submitted in partial fulfilment of the requirements for the Bachelor of Computer Science (Interactive Media) with Honours

FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY
UNIVERSITI TEKNIKAL MALAYSIA MELAKA

2021

DECLARATION

I hereby declare that this project report entitled

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HISTORY SUBJECT

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DEDICATION

I would like to thank and appreciate for that permission my supervisor, Dr Mohd Hafiz bin Zakaria who supported and guided me in this final year project. This is my first time using a gamification application. Despite the mistakes and errors, we still managed to overcome all obstacles. A million thanks to you.

After that, I would like to say a thousand thanks to my classmates and friends who helped me a lot in this project.

Finally, I would like to thank my dear parents for their continued love, support and encouragement throughout this course.

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ABSTRACT

Students' intellectual, spiritual, emotional, and physical growth all benefit from learning history. Previous study has revealed that pupils have difficulty learning history. Students regard history as a tough and tedious topic since they must memorise data as well as comprehend historical facts, concepts, times, and events. Students' interest in interactive multimedia may be piqued, making the teaching and learning process more engaging and bringing history to life. Interactive technology, such as this crossword puzzle game, can help pupils learn more successfully and interestingly, especially among younger kids. The findings from the first study of difficulties in history teaching and learning, students' preparedness for digital game-based learning, and digital game-based capacity for history learning are presented in this paper. Game-Based Studying (GBL) is a method of creating interactive courseware that engages students in learning history by providing them with enjoyable experiences. As a result, for historical software design, we suggest the GBL Model (crossword puzzle).

ABSTRAK

Pembelajaran sejarah sangat penting untuk perkembangan intelektual, rohani, emosi dan fizikal pelajar. Penyelidikan sebelumnya menunjukkan bahawa terdapat masalah dalam pembelajaran sejarah di kalangan pelajar. Pelajar memandang subjek sejarah sebagai sesuatu yang sukar dan sangat membosankan kerana mereka harus menghafal fakta di samping memahami fakta sejarah, konsep, masa dan peristiwa. Multimedia interaktif dapat meningkatkan minat pelajar dan menjadikan proses pengajaran dan pembelajaran lebih menarik dan menjadikan sejarah 'hidup'. Permainan teka silang kata ini, teknologi interaktif dapat memupuk proses pembelajaran dengan berkesan dan menarik terutama di kalangan pelajar muda. Dalam makalah ini, kami memaparkan penemuan dari analisis awal masalah dalam pengajaran dan pembelajaran sejarah, kesediaan pelajar untuk pembelajaran berdasarkan permainan digital dan kemampuan berdasarkan permainan digital untuk pembelajaran sejarah. Pembelajaran Berasaskan Permainan (GBL) untuk pengembangan perisian kursus interaktif untuk meningkatkan minat pelajar dalam mempelajari sejarah melalui pengalaman yang menghiburkan. Oleh itu, kami mencadangkan Model GBL (teka-teki silang kata) untuk reka bentuk perisian sejarah.

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Teka Silang Kata   -   **The development of crossword games as**
Sejarah Tingkatan 5   **teaching tool for form 5 history subject**

LIST OF ATTACHMENTS

Chapter 1: INTRODUCTION

1.1   PROJECT BACKGROUND

Nowadays, everyone is using smart phones. As smart phones are reducing the work of memory, for youngsters and kids it is necessary to get some work for memory to sharpen it. This crossword game is interesting and little tough to solve. It can help to increase concentration power. This crossword is invented especially for school children in age 17 years old which is opportunity for student focus on completing the game. This crossword game is that to make the student knows and remember all about the history Malaysia and along with learning in school. Silang kata Sejarah is a crossword game about the history subject form 5 in Malaysia school. History subject is a mandatory subject to pass. "Silang kata Sejarah" is making for students knows and remember all about the history Malaysia and along with learning in school. The question will be given randomly by chapter Student will be assessed through time taken they finished answer the questions. A game is a type of play where participants follow defined rules. (Houghton et al., 2013) discusses educational games as the utilization of games to support teaching and learning. Games can be used as a support tool to complement traditional teaching methods to improve the learning experience of the learners while also teaching other skills such as following rules, adaptation, problem solving, interaction, critical thinking skills, creativity, teamwork, and good sportsmanship. Learning should not feel dull and it should not only mean rote memorization where students learn and grasp concepts through repetition or cramming. Teachers can take advantage of the energy and innovative thinking that is provided by using technology in learning to improve student performance.

The first crossword was created in Britain during the mid-1700s by John Spilsbury who used a map puzzle to teach world geography. The first-ever crossword puzzle ran in the New York World newspaper on December 21, 1913.The crossword are still extremely popular and run in newspapers across the country. The crosswords we see today are a bit different from the original "word-cross," which was in the shape of a diamond and didn't note "across" or down" moves. Knowing the benefits of playing puzzle game that we have created game "Silang Kata Sejarah" so they can play the crossword game at anytime and anywhere. This crossword game apps game will overview of modification game, and some quiz. There are many benefits out of this kind of games. This game will help to build some skills for example cognitive skills, emotional skills, and memory skills that they learn in the school.

1.2   PROBLEM STATEMENT

In my literature review about existing product, many crossword games developed is not focused on history subject. They only focus on another language for example mathematics and "Bahasa Melayu". So, about this problem, I take an alternative to developing crossword games for History subject form 5. It is suitable for students who wish to take the first term examination. It is because this crossword game covering chapters 1 to 5 in the subject of history. Mobile phones have become commonplace as personal accessories, and they are widely used for both correspondence and entertainment. Currently, cell phones support a wide range of applications, ranging from casual text and multimedia chat to taking pictures, playing sports, listening to music, watching film, and getting information from the internet (Adobe, 20).. History is a core subject in the Kurikulum Bersepadu Sekolah Menengah (KBSM) or Integrated Curriculum for Secondary Schools (ICSS) that must be learned by all students for a continuous period of five years. The History education curriculum at the Lower Secondary Schools must have survival value at the Upper Secondary School, so that the foundations of knowledge, values, skills learned and experience gained can be strengthened and developed further. Most of student that learn in history subject have a problem which is they lack of book references and lack of idea while they study in a class. In addition, they have to borrow some books in library by follow the date that they need to submit back and follow the day which has been set. So if

they play the Malaysian crossword game, it can help them to know and remember the knowledge that they learned in school . It is also free to bring their handphone to any places. After that , the subject filled with many texts that make students easily feel bored when studying the subject of history. Then, most students do not find it easy to remember a subject that is filled with text and makes them lazy to read for each paragraph in a content of books. Beside that , the other problem statement is some of students did not used handphone or device properly . Nowadays, they use the device for useless things are like unnecessary social media for their age group. Having this game can help them not to do useless things that can neglect their learning when at that age and strengthen the memory of their learners.

1.3   OBJECTIVES

There are the following objectives of the development of crosswords games for Malaysia school children are:

i.   To study how crossword games teach as a core subject as learning tool.

ii.   To develop adaptive crossword games based on different chapter of history subject.

iii.   To evaluate the effectiveness of the game for teaching general studies in Malaysia.

1.4 SCOPES

This project is proposed under certain defined scopes. This is to ensure the project is heading to the right direction to achieve its intended purpose. The scope of the system that will be implemented are below:

1. Users

• Only single player can play this game.

• The question will give randomly by following the age of the player

• Get to see their highest score of each game.

2. For Android platform only

• Only focuses for android user only.

1.5 LIMITATION OF WORK

Limitation work for this project only provide one type of crossword games. For this puzzle games only to solve the stage of level difficulties and player will get the score based on correct question to solved the crossword. For the guess game and drag game it is just only simple side game. It is because the target is for the student 17 years old, and this project just state for Android platform only.

1.6 PROJECT SIGNIFICANCE

Following the creation of the proposed project, the expected outcome is that this game will be a success, allowing Malaysian schoolchildren to experience a variety of educational games with multimedia elements, such as a fantastic interface, visuals, fascinating photos, music, and buttons. More than that, I'm hoping the game will be a success in terms of being implemented on Android mobile applications and operating properly when playing. Furthermore, students will be able to enjoy the game without experiencing any tension or difficulty.

1.7 CONCLUSION

Finally, this chapter covered the project's overview, which included the issue description, objectives, scope, work limitations, and projected outcome. Based on the information presented, it is important to enhance the learning process so that students are more engaged and motivated during the learning process, in order to encourage students to better comprehend and learn about Malaysian history. Thus, a simulated crossword game is projected to create a novel way to improving the quality of teaching and learning activities carried out in conjunction with the integration of interactive multimedia components through a simulated crossword game.

CHAPTER 2: LITERATURE REVIEW AND PROJECT METHODOLOGY

2.1   INTRODUCTION

The literature review for the system that will be created is presented in this chapter. In mobile app games, the literature is the process of reading, analysing, evaluating, summarising, and comparing information. It may be used as a guideline for creating a new mobile app game that is better or more functional than existing mobile app games.

A methodology is an organized set of tactics, practices, processes, and systems that are utilised to achieve a goal. The procedure is the entire investigation system that maps out how investigation will be carried out and, among other things, identifies the techniques that will be used. These philosophical strategies define the ways or ways of gathering knowledge, or how a specific outcome is to be determined. Despite the fact that much thought is paid to the nature and types of cycles to be followed in a specific methodology or to achieve a goal, philosophy does not specify particular approaches.

2.2   DOMAIN

There are several of Android Application games that are connected to the system that is being developed. Many games employ a variety of methods to create mobile gaming applications. There are certain benefits and drawbacks that may be analysed and given value to the mobile app game that will be developed shortly.

2.2.1   MOBILE GAME APPLICATION

A mobile game is a video game that may be played on a smartphone. The term has previously been used to describe any game that can be played on a mobile phone (feature phone or smartphone), tablet, PDA, handheld gaming console, portable media player, or graphing calculator, both with and without network access. A Tetris version on the Hagenuk MT-2000 gadget from 1994 was the first known game on a mobile phone. Mobile games are usually downloaded from an app store or a mobile operator's site,

however they are occasionally preloaded in handheld devices by the OEM or the mobile operator when purchased, either by infrared connection, Bluetooth, or memory card, or side loaded into the handset using a SIM card.

2.2.2   GAME DEVELOPMENT

Platform games are another name for 2D games. Something that is held on a platform is also referred to as a platform. Characters in 2D games are often cartoonish and exaggerated. We can't give our 2D character a realistic sense. Pixel pictures include images in common formats such as JPG, GIF, and BMP. The quality of these photos cannot be improved by enlarging or shrinking them. Resolution isn't an issue with vector drawings. Pathways having multiple start and end locations, as well as lines linking these points to form the image, define vectors. A character or other picture can be formed with shapes. Vector-based animation smooths motion by resizing pictures with mathematical values. They can re-use these creations, so the animator doesn't need to keep drawing the same characters repeatedly. can move around these vectors and animate that way.

2.2.3   CROSSWORD GAME

A crossword puzzle is a word puzzle made up of white and black-shaded squares in a square or rectangular grid. The goal of the game is to fill the white squares with letters to form words or phrases by answering clues that lead to the solutions. In languages written left to right, the solution words and phrases are put in the grid from left to right ("Across") and from top to bottom. From left to right ("Across") and top to bottom, the solution words and sentences are inserted in the grid ("Down"). The words or phrases are separated by shaded squares.

2.2.4   HISTORY SUBJECTS

History is a subject that teaches about the development of human history from the stone age to the present. This teaching covers the history of human development, technological development, national development, political development and so on. The