G-SUITE DIGITAL SCHOOL FOR EDUCATION

KHAIRUNNISA BINTI KHAIRUDDIN

Bachelor of Computer Science (Software Engineering) with Honor

UNIVERSITI MALAYSIA PAHANG

SUPERVISOR'S DECLARATION

I hereby declare that I have checked this thesis and in my opinion, this thesis is adequate in terms of scope and quality for the award of the degree of Bachelor of Computer Science.

_____

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STUDENT'S DECLARATION

I hereby declare that the work in this thesis is based on my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously or concurrently submitted for any other degree at Universiti Malaysia Pahang or any other institutions.

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ABSTRAK

Sistem Pembelajaran di Malaysia kini telah mencapai tahap yang agak memuaskan. Pelbagai dasar-dasar pembelajaran yang baru diperkenalkan oleh Kementerian Pelajaran Malaysia bagi meningkatkan taraf pendidikan di negara kita agar setanding negara-negara maju yang lain. Dalam pada semua sekolah berusaha dalam melaksanakan dasar-dasar pembelajaran yang diperkenalkan, kita perlu bergerak seiring dengan peredaran zaman pada masa kini. Oleh itu, adalah lebih baik untuk sekolah-sekolah mengaplikasikan penggunaan teknologi dalam pengurusan sekolah mereka. Namun masih terdapat beberapa sekolah yang masih jauh ketinggalan dalam penggunaan teknologi. Seperti yang dapat kita lihat, sekolah ini gagal dalam menyediakan kemudahan pembelajaran dan pengajaran yang memudahkan serta penyampaian maklumat yang penting kepada orang awam tidak dapat dilaksanak dengan baik. Maka, G Suite Digital School for Education diperkenalkan bagi membantu guru-guru dimana guru-guru dapat mendidik pelajar mereka dengan lebih berkesan. Dengan penggunaan G-Suite Digital School for Education ini, bukan cuma guru-guru yang terlibat malahan ibu bapa, para pelajar serta orang awam turut terlibat sama. Objektif kajian ini adalah untuk membangunkan model sekolah digital untuk pembelajaran yang lebih efektif dan untuk menguji keberkesanan model ini. Oleh itu, analisis agile dikaitkan dalam pembangunan laman sesawang bagi sebuah organisasi sekolah ini. Pembangunan laman sesawang sebagai kaedah dan prototaip kajian ini terdiri daripada enam fasa, iaitu fasa perancangan, fasa analisis, fasa reka bentuk, fasa pelaksanaan, fasa ujian dan fasa penyelenggaraan. Setelah laman sesawang ini dibangunkan, dapat kita lihat sebuah platform yang baik bagi murid dan guru-guru dalam pembelajaran dan pengajan seharian mereka serta penyampain maklumat yang penting terhadap orang awam dapat dilakukan dengan sebaiknya.

ABSTRACT

Malaysian education system nowadays have reach a good standard. Ministry of Education has launch several of education plan in order to bring up our education plan in order to bring up our education level as other developed country. As all the school education organization are working on the plan we have to make sure that we are moving parallel with the passage of time. Therefore, it is better for a school organization to apply the technology usage in their school management. In certain school, they are still left behind in technology. As we can see the school organization are lack of suitable facilities for pleasant teaching and learning environment. Next, they are also lack of effective way in delivering important announcement to the school members. Thus, G-Suite Digital School for Education is introduce to help fellow teachers to educate their student in effective way. By using G-Suite Digital School for Education, it does not just involve the teachers but it also involve the parents, students and also other parties who are interested in knowing about the school. The objectives of this project is to develop a digital school model for effective learning and to test the acceptance of the proposed model through case study. Agile methodology has been embedded in the development of the website for a school organization. The development of website as the methodology and prototype of this study consists of six phases, which are planning phase, analysis phase, design phase, implementation phase, testing phase and maintenance phase. After the website has been developed, the school are able to conduct a pleasant teaching and learning environment to the students and teachers beside able to deliver important announcement to the public effectively.

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LIST OF ABBREVIATIONS

CMS	Content Management System
G-SUITE	Google Suite
ICT	Information, Communication Technology
RPH	Rancangan Pengajian Harian
SK	Sekolah Kebangsaan
SPBT	Skim Pinjaman Buku Teks
VLE	Virtual Learning Environment
3K	Kebersihan, Kesihatan, Keselamatan
RPH	Rancangan Pengajian Harian
JAD	Joint Application Development
RAD	Rapid Application Development
OS	Operating System

CHAPTER 1

INTRODUCTION

1.1 Background of Study

Since Independence in1957, our education system has been change and many innovation has been taking place (Zakaria, 2000). Based on the research from (Ghavifekr & Wan Rosdy, 2015) it discussed about the usage of Information, Communication and Technology (ICT) technology that has been used today in learning and teaching at school. This ICT technology provides help and support for both teachers and students through technology-based tools and equipment as the learning aid to provide effective learning. Seeing the potential in using ICT in education, ICT initiatives by Government Agencies are conducted in school such as The Malaysian Smart School that was launched in July 1997. This initiative aims to transform the educational system entails changing the culture and practices of Malaysia's schools, moving away from memory-based learning designed for the average to an education that stimulates thinking, creativity, and caring for all students, caters to individual differences and learning styles, and is based on more equitable access.

Next is the internet usage that was set up by the Ministry of Education to help increase the use of ICT in education through a website, MySchoolNet. This website is launched to encourage our Malaysian students to have an interactive communication with the students from the other countries. The Ministry of Education recognises that training is a vital aspect in the implementation of any project causing the Ministry of Education are doing ICT training in school cooperated with various agencies. This training will train the selected teachers and the school administration then they will train their colleagues after they has undergo the training.

In March – June 2002 the first stage of the computerisation programme was held in school. This computerisation programme is to introduce ICT literacy to as many schools as possible, and thus reduce the digital divide to some extent. As the ICT initiatives in school, the Ministry has initiated a pilot project involving the use of the electronic book or e-book in 2001. This Electronic Book project is the effort from the ministry to improve teaching and learning process in school as well as to replace the conventional textbooks and thereby resolve the perennial problem of heavy school-bags.

The latest Ministry of Education project in ICT technology in school is the 1BestariNet that was introduced by Muhyiddin Yassin, the former deputy prime minister. The project was initiated in March 2011. However, since this project causes a lot of expenses and the Public Accounts Committee (PAC) has found that the 1BestariNet project did not go through a value management process then the project was awarded to YTL Communications via an open tender to build the 1BesteriNet Receiver (1BRIS) telecommunication towers. The towers would be used for YTL's YES 4G broadband services. In conjunction with this project, Malaysian teachers was given a YES 4G LTE smart phone if their school has received 1BestariNet 4G Zoom. This Smartphone are occupied with 2GB LTE monthly quota to ensure the teachers can use the internet services in their school.

Industry has experienced revolution in the last 250 years, which have entirely changed the face of industry. It is important for Education 4.0 to align with Industry 4.0 and prepare students for the next industrial revolution which will happen in their lifetime. In today's new world of fast changing technology and information overload, students need to be trained and not taught. It conjunction with Education 4.0 mission to responds to the needs of Industry 4.0 or the Forth industrial revolution where man and machine align to enable new possibilities. Besides, it also to harnesses the potential of digital technologies, personalised data, open sourced content and the new humanity of this globally-connected, technology-fuelled world. Lastly to establishes a blueprint for the future of learning and lifelong learning.

There are many platforms of digital education has been created by certain agencies as the effort in achieving the mission of Education 4.0. G-suite for work is a suite of web applications created by Google for businesses. However, there is also G-suite for education which are able to help teachers and students to have the teaching and learning

process effectively. (Rochelle, 2016). G Suite are designed with new intelligent features that make work easier and brings teachers and students together. There are smarter spreadsheets, smarter documents, smarter presentations and smarter scheduling that able to help teacher and student in teaching and learning process.

1.2 Problem Statement

Teaching can be a great challenge in this modern era that we can see nowadays through the social media and news. The challenge that school faces are not from the student only but it come from many ways such as the parent involvement, work pressure and many more. Ministry of Education play an important role in solving the challenges in achieving mission of Education 4.0.

In Education 4.0, it highlights the use of modern technology in applying lifelong learning in school. However, our school in Malaysia are lack of learning environment that is equipped with suitable facilities which can helps students a lot (Wong, 2015). Teaching method in school nowadays are still using the traditional method which is the teacher still have to write on the whiteboard or distribute the papers to the students. This method are so limited to the student in accessing more learning aids. Not only the students are affected by this problem, teachers also face the difficulties in sharing the teaching aids among themselves. This shows school are lack of suitable facilities for pleasant learning environment.

The next problem happen in school based on the survey made in Sekolah Kebangsaan Seri Melati is the lack of effective platform in delivering important announcement to the others. The current platform used are not that effective since parents and students are always missed the announcement. For example, there are using Facebook medium in delivering information, however the announcement are mixed up with the other unnecessary things like photos and videos.

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