

BORANG PENGESAHAN STATUS TESIS*

JUDUL: MOBILE MONEY EDUTAINMENT : KIDS CASHIER

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MOBILE MONEY EDUTAINMENT : KIDS CASHIER

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This report is submitted in partial fulfillment of the requirement for the
Bachelor of Computer Science (Interactive Media)

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DECLARATION

I hereby declare that this project report entitled

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DEDICATION

Specially dedicated to
my beloved parents, my siblings and my family, who have encouraged, guide and
inspired me throughout my journey of education. Also I would like to dedicate this
special thank to my friends and my colleagues.

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ABSTRACT

Mobile Money Edutainment : Kids Cashier is mobile game that allows primary student to learn while gaming. Since there are so many mobile games that are more to pleasure nowadays, hopefully Kids Cashier may balance the market and gives some alternative for other student to learn while playing. There are three stages in this game. The first stage is where acted like a storekeeper for the Candy Shop, where the player is actually the cashier. The total amount for this level will not exceed than \$1. The second stage is at the Ice Cream Shop where the total amount is below \$10 and the final stage is at the Toy Shop and the total amount is below than \$100. This game requires the player to answer 15 questions in every stage and the player can choose the level of the game. The level that can be chosen are easy, medium and hard where each level are given 7 min, 5 min and 3 min respectively. The player that can complete the game within the time limit will get to keep their name in the High Score board and will encourage the student to compete their high scores with others.

ABSTRAK

Mobile Money Edutainment : Kids Cashier ialah satu aplikasi permainan dalam telefon bimbit yang membolehkan murid-murid sekolah rendah bermain sambil belajar mengira wang. Oleh kerana pada masa ini terdapat banyak lambakan permainan telefon bimbit yang berteraskan hiburan semata-mata, kemunculan permainan *Kids Cashier* ini diharap mampu mengimbangi pasaran dan memberikan alternatif kepada para pelajar untuk belajar sambil berhibur. Terdapat 3 aras dalam permainan ini di mana pada aras pertama, pemain perlu menjaga *Candy Shop* dan harga barangannya di bawah \$1. Aras kedua pula ialah *Ice Cream Shop* dan harga barangannya di bawah \$10. Aras yang terakhir iaitu aras tiga ialah *Toy Shop* dan harga barangannya di bawah \$100. Pemain perlu menjawab 15 soalan untuk setiap aras. Permainan ini juga membenarkan pemain memilih masa permainan di mana untuk aras mudah, pemain diberikan masa 7 minit, aras sederhana – 5 minit dan aras sukar – 3 minit. Pelajar yang dapat menghabiskan permainan ini akan dapat menyimpan nama mereka di dalam *High Score* dan seterusnya menggalakkan persaingan sihat sesama mereka untuk mendapatkan markah yang lebih tinggi dari rakan lain.

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LIST OF ABBREVIATIONS

PSM	-	Projek Sarjana Muda
UTeM	-	Universiti Teknikal Malaysia Melaka
FTMK	-	Fakulti Teknologi Maklumat dan Komunikasi
M-Learning	-	Mobile Learning
PC	-	Personal Computer
CD	-	Compact Disc
DVD	-	Digital Video Disc

CHAPTER I

INTRODUCTION

1.1 Project Background

“Mobile phones are part of daily culture of almost all our young generation, non-ICT literate people can use mobile phones easily, and users are used to mobile phones, but the devices have no or very little applications available for learning purposes. Our young generation is used to play games using mobile phones.

Consciously or not, our mobile phone has already become one part of our body. We feel that something is missing from our body if we move around without our mobile phones. So, why can't we use our mobile phones for learning? Why not mobile for learning? (Ahmad I et al. 2007).”

The project that is developed is a mobile game entitled 'Kids Cashier'. The target users of this project are primary school students aged 7-9. The purpose of the game is to help pupils improving their studies in an exciting way by using the mobile technologies and enhancing the learning experience with mobile phones that also motivating and challenging them anytime and anywhere.

1.2 Problem Statements

Children nowadays are more attracted to the entertainment such as games because of too much entertaining culture of the young generation. Existing mobile games have been figured such as most of the games focused on skills and actions but less games on IQ test and knowledge based.

There are many e-learning courseware sold in the market but there are a few weaknesses such as inconvenience factor where it cannot be accessible from anywhere such as bus and class. Many of learning courseware is based on the topics that the student has learned from school. This looks too schematic and standard. This is why because all the courseware is used for learning material at school.

M-learning courseware can be an alternative way but m-learning only happens when people are away from their offices or classrooms. Realistically though, for students or company staff, since any learning needs effort and brainwork, how many of them want to study or learn rather than relax on the bus or in the car on the way home after a long day of work or study? On the way back home from school or office, most people prefer to listen to music, the radio news, or sports programs. When they get home, if they want to learn, mobile devices are not likely to be their main choice. The more likely choices would be DVD/CD Players, videotapes, computers installed with learning software or computers with high-speed access to the Internet for e-learning. M-learning does not replace traditional learning, but is just another way of learning using a new technology. The fundamentals of learning still do not change with mobile learning (Razak,2004).

New concept of mobile educational games is more effective if the user plays the game and gets the benefit from what they have learned from the game. Actually, the game can generate the thinking skill and knowledge of the user. Beside that, the morale value also can be learned from what they have played.

1.3 Objective

In order to ensure that the project working properly and smooth, the objective of the project must be stated clearly. This will not only ease the development of the system but also other who are involve in this project. Below are the objectives for this project.

- To develop a mobile edugames to students with Money Topics according to Primary School Syllabus in an exciting and interesting method to assist and enforce the learning process.
- To increase kids interest learning mathematics in a new way where they can play and enjoy this game, anytime anywhere.
- To provide an alternative exercises for pupils on what they have learned in school without using exercise books and common hardware such as pc.
- To provide a new learning approach for Malaysian education (Edugame-mobile learning)

1.4 Scope

The scope of the project is only applied on three areas: Specific Users, specific platform and specific functionality. Each area is describes as below.

1.4.1 Specific User

The target users of this project are primary school students aged 7-9. It can also be used by parents who are busy with their works and not having much time in keeping track of their children study progress.

1.4.2 Specific Platform

Suitable for all mobile phones with Flash Lite 2 player.

Table 1.1: Nokia mobile phone that support Flash Lite 2

Model	Screen Size	Official Prices (RM)	Supports
Nokia 3230	176 x 208 pixels	930	Flash Lite 1.1 and 2
Nokia 5200	128 x 160 pixels	600	Flash Lite 1.0 and 1.1 and 2.0
Nokia 5300	240 x 320 pixels	785	Flash Lite 1.0 and 1.1 and 2.0
Nokia 6260	176 x 208 pixels	N/A	Flash Lite 1.1 and 2
Nokia 6300	320 x 240 pixels	1010	Flash Lite 1.0 and 1.1 and 2.0
Nokia 6620	N/A	N/A	Flash Lite 1.1 and 2
Nokia 6630	176 x 208 pixels	N/A	Flash Lite 1.1 and 2
Nokia 6670	176 x 208 pixels	N/A	Flash Lite 1.1 and 2
Nokia 6680	176 x 208 pixels	1050	Flash Lite 1.1 and 2
Nokia 6681	176 x 208 pixels	N/A	Flash Lite 1.1 and 2
Nokia 6682	176 x 208 pixels	N/A	Flash Lite 1.1 and 2
Nokia 7390	240 x 320 pixels	1550	Flash Lite 1.0 and 1.1 and 2.0
Nokia 7610	176 x 208 pixels	N/A	Flash Lite 1.1 and 2
Nokia N70	176 x 208 pixels	1085	Flash Lite 1.1 and 2
Nokia N90	352 x 416 pixels	1275	Flash Lite 1.1 and 2

1.4.3 Specific Functionality

The following table describes the modules that will be covered in the project.

Table 1.2 : Modules of the Project

No.	Module	Description
1	Training	Introduction how to play this game.
3	Kids Cashier Challenge	Real challenge for cashier. Have 3 level - easy, medium and hard.
4	High Score	Evaluate their scores.

1.5 Project Significance

This project is important in helping students to improve their thinking and learning skills especially in learning money. It will become a new way in learning as it can give a new experience for kids learning mathematics using mobile technologies. The advantages using Flash Lite on developer side is developing a m-learning with a small budgets. Besides that, shelf lives are shorter, development cycles are reduced and team sizes are smaller.

Other than that, the Flash platform does not need any installation to be used. Users can get this and ready to play it. With the creation of this mobile game, it will range the usage of mobile technologies in the market.

A mobile game is reaching a new kind of user through:

1. Convenience: accessible from anywhere (bus, class, laundry room) to content including learning games
2. Engaging/Fun: combine gaming and learning for a more entertaining and effective experience.

1.6 Expected Output

The output is an application that is designed specially for mobile devices with user-friendly interfaces and easy instructions for kids to understand. It has the combination of gaming and learning for a more entertaining and effective experience that can increase the kids interest in learning mathematics in a new way where they can access rich media resources including animation, sound, picture and text. While Mathematics is considered as a stiff and boring subject to many of school kids, the colorful elements of multimedia might do the trick for them to gain a little more interest in this subject. The co-ordination of all the elements can be stimulating to pupils in order for them to have a better knowledge absorption.

Conclusion

This project background describes the introduction to the project as a whole. It includes the content of the project, target users and the importance of the project. The problem statements describe the problems related to why this project should be developed. From the problem statements, the objectives of the project can be extracted. The scopes of the project explain the boundary and target users of the project. The needs and the content of this project are also cover in this topic. The project significance explains the output and the approach used in this project. The target of this project is to ensure that learning about money is achievable and students should understand about that.

This mobile education games can be considered as an alternative for pupils where they can use this application at anytime and anywhere they like it. This application acts as a support to the conventional way of learning as it provides many benefit which will save time and much more appropriate to use. For the next chapter, the literature review will be covered and from that, some ideas will be generated for the next task.

The next chapter discuss the literature view and project methodology.

CHAPTER II

LITERATURE REVIEW AND PROJECT METHODOLOGY

2.1 Introduction

This chapter describes in detail about the related literature that have been written earlier to support the project title. In this chapter also, is explained the type and function of methodology that has used to develop the project. Describe the detail stages in methodology that has used. Beside that, this chapter also covered about the literature that related to project title. Review the statement that related as a guideline to project development and make the comparison of each literature. The literature is compared based on the technique, approach and methodology that used also opinion of author about the topic that has been research. Next, explained all the hardware and software that require developing the project and project schedule that described the flow of project development.

While the word 'methodology' is an etymology of the Latin words 'methodos' + 'logia' means a body, roles and postulates employed by a discipline : a particular procedure or set of procedures (Merriam-Webster's Online Dictionary,).

2.2 Facts and Findings

This section contains domain that relates with project, review on journals, existing system and technique applied in project development.

2.2.1 Domain

Mobile game is categorized under ICT in mobile application. This is because the game is developed under Symbian Operating System mobile phones platform. Player will be challenged with money calculations.

2.2.2 Existing System

Summarizing several mobile teaching and learning system implementations discussed at the IEEE Workshop for Wireless and Mobile Technologies in Education 2002, Goh and Kinshuk (2004) tabulate the results as presented in Figure 2.1. Examining the deployments and evaluations, the authors draw the following conclusions:

- Mobile learning is in its infancy stage. Researchers are still exploring every aspect of mobile learning.
- Mobile content can be as simple as SMS to as sophisticated such as multimedia still picture.
- No video or flash applications on mobile devices were being evaluated.
- Mobile applications are simple in nature. Most researchers use existing device software such as browser, file transfer, note taker, voice recorder, or e-mail to conduct their respective experiments.
- Slightly more sophisticated applications involve technologies using database, Java, Active perl, and forms development.
- Most applications target directly towards mobile devices. Couple applications started with PC and move to mobile devices with re-design.
- A variety of mobile devices are being used. These include Nokia communicator, HP-Jornada, IPAQ, and Palm.
- Most mobile applications run in mobile and fixed mobile environment.