

Universiti Teknologi MARA

**Applying Musical Intelligence Theory to Improve
Learning Motivation on Mathematics**

NUR FAEZAH BINTI MOHAMAD

2009632366

Thesis submitted in fulfillment of the requirements for
Bachelor of Science (Hons) Information Technology
Faculty of Computer and Mathematical Sciences

MAY 2011

ACKNOWLEDGEMENT

First of all, I would like to express my deepest appreciation and gratitude to Allah s.w.t. for His blessing. He also gives me strength, ability and opportunity to successfully accomplish this research.

Second, I would like to thank my supervisor, Mr. Fauzi Bin Mohd. Saman for his support, patient and encouragement in guiding me to complete this research paper successfully. It is for sure that I will not be able to carry out this research and complete it in time without his knowledge, support and guidance. Not to forget, my lecturer Mrs. Jamaliah Binti Taslim for all the information, guidance, support and opinions.

Last but not least to my beloved family who always pray for my success in my study. Also a special thanks to all my friends for their support and those who are involved either directly or indirectly in helping me to finish this research. Without their help and support, it would have been impossible and quite hard for me to complete this research on time. Thank you very much.

May Allah bless all of you. Amin.

UiTM Shah Alam, May 2011.

Nur Faezah Binti Mohamad

ABSTRACT

Learners' motivation has an impact on the quality of learning. Nowadays, all people are familiar with the use of computer. In school, there is a subject teaching about information technology and computer basics. Most of the students have been exposed to the world of information technology and is able to communicate through network. Although e-learning is widely used among students but it is difficult to retain learner attention because of the lack of motivation. The research's aim is by applying musical intelligence theory in development of an application to improve learning motivation on mathematics based on mathematical subject syllabus which is exponential, so that it will help the students in their process of learning and retain their attention to continuously using it. The development of Applying Musical Intelligence Theory to Improve Learning Motivation on Mathematics is the application developed especially for secondary school students' age 13-15 years old. The focus is on learning exponential in mathematical subject for secondary school students especially those who will be taking Penilaian Menengah Rendah (PMR) examination.

TABLE OF CONTENT

CONTENT	PAGE
APPROVAL	ii
DECLARATION	iii
ACKNOWLEDGEMENT	iv
ABSTRACT	v
LIST OF FIGURES	vi
LIST OF TABLE	vii

CHAPTER 1:

INTRODUCTION	1
1.0 Research background	1
1.1 Problem statement	4
1.2 Research Objectives	5
1.3 Research Scope	5
1.4 Research Significance	6
1.5 Summary	6

CHAPTER 2:

LITERATURE REVIEW	7
2.0 E-learning	7
2.1 Motivation	8
2.2 Problem to Motivation in E-Learning Environment	9

2.2.1	Difficult to retain learner attention	9
2.2.2	Isolation	9
2.2.3	Connection limitation	10
2.3	Learning Style	10
2.4	Characteristic of Auditory Learner	11
2.5	Theory of Multiple Intelligence	12
2.5.1	Linguistic Intelligence	12
2.5.2	Logical-mathematical Intelligence	13
2.5.3	Spatial Intelligence	13
2.5.4	Bodily-kinesthetic Intelligence	13
2.5.5	Musical Intelligence	14
2.5.6	Interpersonal Intelligence	14
2.5.7	Intrapersonal Intelligence	14
2.5.8	Naturalistic Intelligence	15
2.6	Relationship between Multiple Intelligence and motivation	15
2.7	Music	16
2.7.1	Music and motivation	16
2.7.2	Music and mathematic	17
2.8	Exponential	18
2.9	Characteristic of Intended User	19
2.10	Summary	20

CHAPTER 3:

	RESEARCH METHODOLOGY AND APPROACH	21
3.0	Phases in Applying Musical Intelligence Theory to Improve Learning Motivation on Mathematics	21
3.1	Problem identification and planning	23
3.2	Information Gathering	23