

**VIRTUAL REALITY IN EDUCATION: VIRTUAL REALITY  
AS A TOOL IN LEARNING AND TEACHING  
PROCESS OF A COMMERCE SUBJECT**

**A thesis submitted to the Graduate School in partial  
Fulfillment of the requirements for the degree  
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**by**

**Suriati Bt. Abdul Aziz**

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## ABSTRAK

Tajuk ini menjadi pilihan bagi penyediaan tesis adalah kerana ia merupakan sebahagian daripada tujuan saya melanjutkan pelajaran saya dalam bidang ini, iaitu bagi mendapatkan cara untuk membuatkan mata pelajaran Perdagangan menjadi lebih menarik untuk diajar dan dipelajari. Oleh kerana mata pelajaran ini lebih berbentuk subjektif dan merangkumi bidang yang agak luas, pelajar lebih cenderung untuk merasa jemu dan bosan ketika berada di dalam kelas.

Walau pun bahan dan lakaran yang dibuat adalah ringkas dan seperti tidak memenuhi kehendak mata pelajaran ini sebenarnya, namun bagi saya ia adalah sesuatu yang akan dapat membantu memberikan gambaran sebenar kepada pelajar bagaimana sesuatu perdagangan barangan dan perkhidmatan itu berlaku - bermula dari pengeluaran, pengagihan, pemasaran dan sebagainya - dari pengeluar sehinggalah barangan atau pekhidmatan itu sampai kepada pengguna akhir.

Bagaimana proses perdagangan bermula dan bagaimana pula ia berakhir akan melibatkan masa, yang sudah pasti merupakan perkara utama yang perlu diambil kira. Dari satu segi, jam yang dijadikan model dalam tesis ini memberikan maksud yang mendalam kepada diri saya dan juga pelayar laman *web* saya yang memahami tentang kepentingan masa.

## **ABSTRACT**

The title was chosen for the preparation of this thesis because it was a part of the reason for me to continue my study in this area, to find a way to make the study and learning Commerce more interesting to teach and to be learnt. This is because that this subject is more subjective and covers quite a wide area, but more often than not students tend to be bored and restless in the class.

Even though the material selected and the drawing done was simple, it will give the students the actual picture of how the commerce of products and services is done – starting from the production, distribution, marketing and others – from the producers until the products and services reached the end users.

How a commerce process starts and how it ends will involve times, which is the main thing to be considered. Clock becomes the main model of this thesis as it symbolizes/signifies time. This meant a lot to me and to the users who understood the importance of time.

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## TABLE OF CONTENTS

	<b>Page</b>
<b>PERMISSION TO USE</b>	<b>i</b>
<b>ABSTRAK</b>	<b>ii</b>
<b>ABSTRACT</b>	<b>iii</b>
<b>ACKNOWLEDGEMENT</b>	<b>iv</b>
<b>CHAPTER ONE: INTRODUCTION</b>	
<b>1.1 Objectives</b>	<b>1</b>
<b>1.2 Problem Statement</b>	<b>5</b>
<b>1.3 Significance of the Study</b>	<b>6</b>
<b>1.4 Scope, Assumptions and Limitations of the Study</b>	<b>6</b>
<b>1.4.1 Scope of the study</b>	<b>6</b>
<b>1.4.2 Assumptions of the study</b>	<b>7</b>
<b>1.4.3 Limitations of the study</b>	<b>8</b>
<b>CHAPTER TWO: LITERATURE REVIEW</b>	
<b>2.1 Commerce</b>	<b>10</b>
<b>2.2 Virtual Reality</b>	<b>11</b>
<b>2.3 Education</b>	<b>12</b>
<b>2.4 Virtual Reality and Education</b>	<b>14</b>
<b>CHAPTER THREE: METHODOLOGY</b>	
<b>3.1 The Virtual Reality Software Chosen</b>	<b>25</b>
<b>3.1.1 AutoCAD</b>	<b>25</b>
<b>3.1.2 3D Studio Max</b>	<b>32</b>
<b>3.1.3 Cosmo Player</b>	<b>36</b>
<b>3.1.4 Cortona</b>	<b>39</b>
<b>3.1.5 Virtual Reality Modeling Language (VRML)</b>	<b>41</b>

<b>3.2 Microsoft Front Page</b>	<b>41</b>
<b>CHAPTER FOUR: FINDINGS</b>	
<b>4.1 AutoCAD</b>	<b>42</b>
<b>4.2 3D Studio Max</b>	<b>44</b>
<b>4.3 Cosmo Player</b>	<b>45</b>
<b>4.4 Cortona</b>	<b>46</b>
<b>4.5 Conclusion – Comparison Between Cortona and Cosmo Player</b>	<b>47</b>
<b>4.6 Microsoft Front Page</b>	<b>48</b>
<b>CHAPTER FIVE: CONCLUSIONS AND RECOMMENDATIONS</b>	
<b>5.1 Conclusions</b>	<b>50</b>
<b>5.2 Recommendations</b>	<b>52</b>
<b>REFERENCES</b>	<b>54</b>
<b>BIBLIOGRAPHY</b>	<b>57</b>
<b>APPENDIXES</b>	



# **CHAPTER 1**

## **INTRODUCTION**

## 1.0 INTRODUCTION

Virtual reality (VR) has captured the public imagination since the day it was introduced to the public by VPL and by Autodesk on June 6, 1989. It has been commercially available before being academically understood. Any technology, which has the audacity to call itself a variety of reality, must also propose a paradigm shift (Bricken, 1990). In essence, a paradigm shift expands the potential of an entire discipline, which virtual reality has expanded every aspect of computer science. Virtual reality is an advanced form of human-computer interface that tries to explore the human senses in order to obtain a high quality interface. Many reasons have been shown to justify the use of virtual reality in education, indicating that this technique has great potential.

Virtual reality is the body of technique that applies computation to the generation of experientially valid realities. The primary defining characteristic of virtual reality is inclusion, being surrounded by an environment. Virtual reality places the participant inside the information. For educational purposes, virtual reality has been proposed as a technological breakthrough that holds the power to facilitate learning. Though most efforts within the virtual reality community have focused on applications designed to fulfill purposes of training, such as vehicle simulators, medical and military training. While this area is not at all unimportant on school level, it is also

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