**BINDURA UNIVERSITY OF SCIENCE EDUCATION**

**Faculty of Science Education**



**ONLINE MULTMEDIA CONTENT MANAGEMENT SYSTEM**

**For**

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**B164**

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## Introduction

## The purpose of this study is to develop online multimedia content software for teaching computer studies at Chipindura high school. This chapter starts by outlining the background of the study, statement of the problem, and objectives of the study, significant of the study, and the concluding summary

## 1.1.1 Background of the study

The education sector has been a top priority for the Zimbabwean government since independence in 1980. In fact, the sector often receives the most allocation of funds in the national budget with the year 2018 being no exception. Despite this, many schools, especially in rural areas and informal settlements have a shortage of textbooks, while others have none whatsoever for example at Chipindura high. Furthermore, the school is chacterarised by a high student to teacher ratio, with figures in the range of 50:1. This makes it very difficult for the teacher to be able to attend to each and every student individually. The end result is that the school will have a very low pass rate, for instance with a pathetic 29% pass rate in the November 2016 ZIMSEC O-level exams. In many of the before mentioned disadvantaged areas like Chipindura high the pass rate can be a shocking zero percent. There are many factors that contribute to the low pass rate, but the availability of quality studying material is a major culprit.

The problem is even worse when it comes to ICT subjects because there is a shortage of qualified ICT personnel, not just teachers but all professions, and not just in Zimbabwe, but worldwide. At the same time, Zimbabwe boasts an impressive mobile penetration where ¾ of the population do have phones, thereby the situation provides an opportunity to assist those disadvantaged students who are unable to access quality educational material to have textbooks and learning systems on their mobile devices, to help them perform better in their studies at a fraction of the cost of printing and distributing physical textbooks all over Zimbabwe.

## Investigation and description of current system and Literature Review

**Literature Review**

The purpose of the literature review is to show the researcher’s ability to find relevant information and to summarize existing knowledge. This chapter is focused on literature whose main purpose is to help researcher to find the effective online multimedia content system that can help students learn better freely.

One significant change is the development of multimedia instructional activities. Multimedia is defined by Zin, Latif, Bhari, Salaiman, Rahman, Mahdi, and Jamain (2012) as a combination of many different types of media communications including text, graphics, audio, video, music, and animation. Eastman, Iyer, and Eastman (2011) states that Interactive media is incorporating multimedia with computing technologies.

Sanchez (2000) postulates that appropriate integration of technology in the classroom through the use of multimedia instructional tools coupled with a focus on student learning by changing to a student-cantered pedagogy results in an increased quality of education without increase in the cost. According to Schilling (2009) technology-based materials offer students on-going practice opportunities that provide immediate, high-quality, detailed feedback. High quality, timely, and frequent feedback can help improve student’s work as well as their learning.Twigg (2000) said that Learning opportunities and formative assessments are available through the use of problem-solving activities, simulations, and practice assignments. Available summative assessment activities include computer-based quizzes, capstone projects, and computer graded exams. Research by Gantt (2001) has shown that assessment activities can be used to support student learning.

Computer science integration in the school curriculum fosters student centred learning. This is to say the student will be responsible for initiating his or her own learning while the teacher will act as a facilitator in the student’s learning. Furthermore, computer technology provides a multimedia for imparting instructions to the students in the form of texts, audio and visuals. Computers as a media of learning are also suitable for the disadvantaged, whether it is due to disabilities or due to geographic location. It is important that students are provided with productive and relevant learning activities that encourage them to spend appropriate time on task. Multimedia instructional tools can provide students with these opportunities. The use of multimedia applications has been shown to improve student learning by providing meaningful student engagement with their activities (Anderson 2004).

* + 1. **Description of the Existing system**

Currently, students are relying on physical, paper based textbooks for their revising and learning needs. The tests books are provided by the school in short supply. However, as highlighted above, in many areas the schools are unable to afford or acquire textbooks. This is for a number of reasons including;

* Though education receives the most funding by government, the funds are not enough to meet the needs of all the schools that the government is responsible for.
* Even in the cases where the schools receive sufficient funds, some school officials are corrupt and will misuse the funds.
* The textbooks wear out over time and need to be replaced.
* The information contained in the textbooks can quickly become obsolete as new knowledge is acquired and old theories are replaced. This is particularly the case in ICT where there is very rapid change and some concepts can become obsolete and need to be updated.
* Textbooks are sometimes stolen.

## Statement of the problem

## Many researchers have found that pupils learn better when on hands on activities (class activities, video, hand-outs with activities and online learning). These were also considered to be successful in the teaching and learning. Therefore the researcher also felt need to develop software tool that are effective in the teaching and learning of computer studies

## 1.4 Objective of the study

* To create an Online Multimedia Content System software (**OMCS**)
* To developing a new system better than the current system.
* To determine students perception on use of different learning media

## Significance of the study

The result of this study will enable the application of Online Multimedia Content System (OMCS) in the field of teaching and learning computer science carefully emphasizes and heighten practical results to support stepwise knowledge building, consolidation and claim of proactive education and development. It has platform for designing both curriculum-related activities and computer-based culture technologies, in terms of helping students on how teachers swing within scientific theory and empirical evidence. This strategy will greatly teaching and learning and hence increase understanding of the use of audio-visual aids which shows diagrammatic representation of processed. It will help students participate in the lesson. It will also help students to alleviate the problem of large class size which typifies computer science class. Nunan (1999) argued that new technologies have the potential to support education across the curriculum and provide an effective link between teachers and students in ways that have not been possible before the advent of computer technology. It is important to say that computers are the main instructional support to the learning and teaching process. Learning with technology has become essential in today’s schools. Worldwide, governments, education systems, researchers, school leaders, teachers and parents consider technology to be an important part of a child’s education. Furst-Bowe, Boger and Franklin (1995) who postulates that in order to be successful in academic programs and careers, it is essential that university students possess improved computer skills.

## Scope of the study

The scope of this research work is limited to using multi-media as necessary tool to teaching and learning computer science in some select secondary schools in Bindura. It covers the problems encountered and the solutions to such problems in the case study.

## 1.6 Feasibility study

Feasibility is to carry out the detailed study of the existing system, find out the problem related to technical, operational staff, and economical field like cost by concerning the user of the study proposal of the proposed system is accepted by the management it will lead to the investigation of the existing system or problem area.

**Three phases of the feasibility study is used**

**Technical feasibility**

It is concerned with the available hardware and the software resources whether they meet the given requirement of the analyzed system or not which include latest machinery and the technique required handling the system. It may also invoke the study of the new alternative to solve the given problem.

**Behavioral Feasibility**

People are inherently resistant to change, and computers have known to facilitate change. An estimate should be made of how strong a reaction the user staff is likely to have toward the development of a computerized system. It is common knowledge that computer installations have something to do with turnover, transfers, restraining, and changes in employee job status. Therefore, it is understandable that the introduction of a candidate system requires special effort to educate, sell and train the staff on new ways of conducting business.

**Economic Feasibility**

It deals with the study of the cost benefit analysis. All the cost of the new system compared with the benefits, which can be obtained for management approval. The benefit may be quantities in nature Current System Summary. The genuine consideration of the system being developed is the approach follow to look the system in the way it is useful for them.

**Programming Languages**

* PHP, JavaScript, CSS(Bootstrap)
* MySQL
* Java

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