

**THE EFFECT OF E-LEARNING ON THE ACADEMIC
PERFORMANCE OF MATHEMATICS UNDERGRADUATE
STUDENTS IN BUSITEMA UNIVERSITY**

BY

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Declaration


I, Cherop Emmanuela, hereby declare that this report is my original work and has never been submitted to a college, University, or other organizations for any award.

Cherop Emmanuela

A handwritten signature in blue ink, appearing to read 'Cherop Emmanuela', is written over a horizontal dotted line.

Approval

This dissertation has been submitted for examination with the approval of my university supervisor

Signature.......... Date..... 02/05/2023

Dr. Annet Kyomuhangi

Dedication

To my lovely father Musobo Patrick T.S, my lovely Mother Cheptoyek Joselyn, Brothers Robin, Sidney David, Siya and Caleb, my sister Mercy and Mr. Ivan Bageya .you were my inspiration, challengers and cheerleaders during my graduate studies.

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Abstract

Students study mathematics in elementary schools, high schools, and universities. One method of teaching mathematics is through e-learning, it is a kind of instruction where pupils are passively given all of the material. It's used globally and it enables students to study wherever they are. E-learning was introduced at Busitema University in 2019, however it was fully implemented in 2020 during the Covid-19 pandemic lockdown, where all modes of teaching were shifted online following COVID-19 guidelines by the ministry of health. This study investigates how e-learning affects mathematics students at Busitema University. Regarding data gathering and analysis, this study adopts a quantitative methodology. Data was collected using a self-made questionnaire. The study sampled 60 mathematics students in their second and third years.

The findings show that: 50% lack knowledge in video conferencing systems for example zoom, teams and google classroom. 55% had no personal computers and 51.7% could not open even a website link on their own. In terms of institutional challenges, results show that; 68.3% had no access to the computer laboratory while at campus, 55% had issues of poor internet, 83.3% didn't have enough time for e-learning while at campus and 70% had no access to online resources including software that supports e-learning.

The study found that students at campus lacked computers and knowledge about computers and were unable to perform well without them. The study suggests that the university administrators need to provide adequate training to students, purchase computers for the university and partner with internet service providers to provide students with full time access to the internet.

Chapter 1: Introduction

1.1 Background

Mathematics is one of the basic subjects that require students to have an understanding of various skills and ways individuals choose to have their daily lives. Mathematics aids man in his understanding of the world in which he lives and is in turn modified by this world. Those responsible for helping students to learn mathematics need to be aware of different opinions on the subject; Majoram (2004). The coronavirus outbreak which is thought to have started in 2019 in Wuhan, one of the biggest cities in China, and eventually expanded to several of other countries shocked the world. President Joko Widodo referred to this outbreak as public health disaster and recommended working from home on January 30, 2020, while the World Health Organization declared it a public health emergency.

According to the nation Thailand article released on Saturday, March 14, 2020, President Joko Widodo received a letter from Dr. Tedros Adhanom, Director-General of the World Health Organization (WHO), on March 10, 2020, requesting him to take specific actions to stop the virus' spread and establish a coronavirus emergency at the national level, the Ministry of Foreign Affairs and the Ministries of Health received the letter as well. And as a result, learning activities that were normally carried out in schools and higher institutions of learning soon started to take place at home or through e-learning as a result of new regulations imposed by the COVID-19 outbreak and other circumstances.

E-learning, which is also referred to as digital learning, is a form of learning that occurs through electronic media. It can be accessed through most electronic devices, such as laptops, tablets, smartphones, or computers. Due to the flexibility of this type of teaching and learning, students have greater access to education than they would with traditional teaching techniques. Additionally, students are given the option between full- or part-time studies (El-Seoud, 2014). Platforms for e-learning include Zoom, LMS (Learning management system), Google Classroom, and Microsoft Teams.

E-learning, in accordance with Salmat et al. (2018), is the interaction between students and teachers through an internet-based system. Teachers may also be in the same building with students, and students are admitted, trained, and taught through an online system.

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