A COMPUTERIZED APPROACH TO ENHANCE LEARNING EXPERIENCE OF O/L STUDENTS IN ICT EDUCATION

N.H.M.C. Attanayake 198743C

Dissertation submitted in partial fulfillment of the requirements of Degree of Master of Science in Information Technology to the Faculty of Information Technology, University of Moratuwa, Sri Lanka

DECLARATION

I declare that this thesis is our own work and has not been submitted in any form for another degree or diploma at any university or other institution of tertiary education. Information derived from the published or unpublished work of others has been acknowledged. Due references have been provided on all supporting works of literature and resources.

N.H.M.C. Attanayake	
	UOM Verified Signature
Date:	Signature of Student:
Supervised By:	
Mrs. Indika	
Karunarathna	
Senior Lecturer	
Faculty of Information	
Technology University of	
Moratuwa	
	UOM Verified Signature
Date:	Signature of Supervisor:

ACKNOWLEDGEMENT

I would like to acknowledge and express my appreciation for those efforts and support in one way or another contributed to the successful completion of this research.

First, I am deeply grateful for the supervision throughout the one year of my research and the help received from my supervisor Mrs. Indika Karunarathna, Department of Information Technology, Faculty of Information Technology, University of Moratuwa. She encouraged me and gave me necessary advice and provided me with a positive environment where she greatly influenced me to achieve this goal. I extend my heartfelt thanks to all the academic staff of the Faculty of Information and Technology who have shared their knowledge throughout these two years.

It is with great pleasure to thank the University of Moratuwa, Sri Lanka, for all the efforts and facilities that it has taken to contributions this postgraduate program. Especially, I would like to thank my colleagues for their support to complete this research in many ways.

Abstract

Different types of challenging activities should be given to the student by the teacher through technology and the learner should be engaged in thinking. Learners of modern computer-based technologies have significant potential to provide meaningful learning experiences for knowledge building. The purpose of this study is to suggest and develop an effective e-learning framework for strengthening the online learning environment with an e-learning model to enhance online connectivity and learning.

In this study, 100 ICT students studying in Grade 11 were divided into two groups of 50 each and the governing body was given 5 TEL learning materials based on the lessons related to the GCE (O / L) syllabus. The other group learned the relevant 5 lessons using the Zoom technology using the standard classroom learning-teaching methodology. The lessons used in the TEL material were adapted to the TPACK concept, allowing the student to face the assessments given at the beginning and end of a lesson for the final assessment of the lesson. Each lesson is done at the beginning and end of the lesson. Students in the controlled group are required to engage in self-study by following the links provided in these sequential lessons. At the end of the above process, Google Forms will provide two questionnaires for the students involved in the TEL material and the parents of 20 of those students. Before starting this study, all stakeholders will attend an online consultation and conclude the analysis of qualitative and quantitative data obtained using the Weka software.

Keywords:- TEL material, Online education, TEPACK concept, self-learning

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