International Journal of Early Childhood Special Education (INT-JECSE)
DOI:10.9756/INTJECSE/V14I5.239 ISSN: 1308-5581 Vol 14, Issue 05 2022

Impact of E-Learning Approach in Accounting subject for Secondary Level Learners in Sri Lankan Schools

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Abstract
There is growing pressure on educational systems all around the world to employ modern information and communication technologies to familiarise pupils with knowledge and information. E-learning materials are a very effective teaching tool. The current study looked at how an online accounting course affected secondary-level pupils in Sri Lankan schools. For the Commerce Stream Advanced Level (Grades 12, 13), Accounting is a required subject. Approximately 30% of accounting students fail the accounting topic at the G.C.E. Advanced level in a nationwide exam each year. However, getting students to choose the Commerce stream at G.C.E. advanced level has grown more challenging. As a result, fewer students are enrolled in the Commerce stream. The use of an experimental research design was made. The present study included a sample of students from secondary level (Grades 12, 13) courses of boys only and girls only categories in Western Province. The treatment classes were chosen at random from the intact classes. The treatment schools were chosen because they offered accounting as a subject in their curricula and had access to computers. All groups received the Accounting Achievement Test, which was given to them both before and after (AAT). The statistical significance criterion for the analysis of the quantitative data was established at $p = 0.05$. The findings show that e-learning techniques increased students' motivation and success in order to dispel the myth that accounting is a challenging secondary-level topic. The study showed that the E-Learning technique was more successful in boosting students' motivation and aptitude for learning accounting.

Key terms: E-learning, Accounting, Secondary Level

Introduction

There are five streams available for G.C.E. Advanced Level students to choose from under the current general education system in Sri Lanka. The Commerce Stream has the second-highest number of students. For students in the Commerce programme, accounting is a required subject. Additionally, the focus of accounting education has shifted from being knowledge-based to being process-oriented. They want to bring about improvements that will lead to better intellectual, interpersonal, and business-related general knowledge (Doost, 1999). The accounting and non-accounting business world must support changes to the accounting curriculum (Steadman and Green, 1995). Effectively preparing students to become accountants to meet the demands of the job economy and contemporary issues (AAA, 1986; AECC. 1990). It is anticipated that the secondary school curriculum will further expand IT and e-learning approaches in accounting education. As a result, the researcher decided to conduct the current study.

According to the Kenya Institute of Education (1988), Boone and Kurtz (1987), and Kiboss (2002), the purpose of business education (including accounting education) is to provide students with the knowledge, skills, and attitudes needed to operate successfully in any business environment. This is because poor business managers and accountants will result from any shortcomings in the secondary level teaching and learning processes. Accounting education that incorporates IT is more practical and easily transferable in the real sector (Kiboss, 2013). As a result, traditional accounting teaching and learning methods, particularly those used in Sri Lankan schools, are unable to meet the needs of the modern business sector. E-learning is therefore regarded as a particularly effective tool for teaching accounting.

Background of the study

A recurring theme in the research is that e-learning encourages students to develop their own theories and interpretations, which shows that both the quality and quantity of learning has improved (Bates, 2005, Kashora, 2012). E-learning encourages cooperative learning and active learning among students. Therefore, it is frequently assumed that e-learning technologies provide additional opportunities

for learning and improve learning quality. Thus, given that recent research indicates that ICT might advance knowledge, constructivist learning methodologies in accounting may need to be devised (Kashora, 2012).

The benefit of e-learning is its flexibility, whether it be in terms of the number of students involved or the preferred study time (Afifi, 2011). In addition, using e-learning is advantageous for developing students' abilities through independent learning, which results in longer retention of information acquired. E-learning delivery systems also make it feasible to reach students who live in remote locations, lower educational costs, and improve accessibility for those with impairments. These are all characteristics of e-learning that make it more suited for accounting education. The learning process in e-learning promotes students to communicate ideas autonomously in a virtual classroom and creates high quality in communication (Davis, 2012). As can be seen in Table - 1 below. The number of candidates sat G.C.E. Advanced Level examination and their performance in accounting subject in last five years.

Table 1 : Number of Candidates and their performance in Accounting at G.C.E. A/L Exam

Grades	**2015**		**2016**		**2017**		**2018**		**2019**	
	Number	**%**	**Number**	**%**	**Number**	**%**	**Number**	**%**	**Number**	**%**
A	8733	14.49	8378	14.64	10747	19.00	5045	9.31	5594	12.12
B	6961	11.55	6140	10.73	6489	11.47	5394	9.95		
C	12405	20.58	10700	18.69	11609	20.52	10758	19.84	4319	9.35
S	15395	25.54	16392	28.64	14313	25.30	18249	33.66	8761	
W/F	16780	27.84	15630	27.30	13415	23.71	14765	27.24		18.97
									13732	
									13767	29.74
										29.82
Total	60274	100.00	57240	100.00	56573	100.00	54211	100.00	46173	100.00

Source : Department of Examinations, Sri Lanka.

According to the Table-1,Every year students' fail rate is high and Distinction (A) pass rate is low in accounting subject in G.C.E Advanced level exam at national level. Therefore, traditional chalk and talk method is not suitable in accounting subject for better understanding.

Significance of the study

- In the present educational practices this study will help to find the suitable E-learning teaching learning technologies for the accounting education in the Sri Lankan school system especially at senior secondary level.
- For the future researchers in the same field, this study may contribute to the knowledge base in the field of accounting education.

Related Literature Review

Accounting education can be seen as experience, practise, and a vital component of business education. Accounting's goal is to give managers visibility into the outcomes of their decisions. The goal of accounting education is to assist students in becoming qualified accountants (Elaine Martin, Pat Evans & Elizabeth Foster, 1992). The instructor should frequently combine theory and practise.

The requirements for accounting education have been impacted by the growing complexity of company. Any education that places a strong vocational emphasis will exhibit the same pattern. The accounting industry is under pressure from changes in globalisation, technology, information sources, and corporate practises. Institutions of higher learning are required to support society's requirements, particularly those of the corporate world. They should develop top-notch students who have the potential to become future accounting professionals and who possess not only accounting knowledge but also analytical, technical, communication, and interpersonal skills in order to address all of these problems. Collaboration between educational institutions and business is necessary for success in this endeavour (Eskola, 2011). Therefore, the present and future needs of organisations cannot be met by traditional learning and teaching technologies.

E-learning gives higher education students the freedom to pursue their studies while also pursuing their personal goals and maintaining their professions without having to adhere to a strict schedule (Borstorff and Lowe, 2007). E-learning is becoming increasingly significant in educational institutions. One of the best techniques of education is e-learning, which is said to be more successful (Hameed et al, 2008). The implementation of E-learning gives institutions and their students a great deal of flexibility when it comes to the timing and location of information delivery or receipt for learning (Smedley, 2010). By making it simple to access a vast amount of material, e-learning improves the effectiveness of knowledge and certifications. Students are inspired by e-learning to engage with others, exchange ideas, and appreciate various viewpoints. The relationships that support learning are improved and communication is made easier through e-learning. E-learning offers more opportunities for interaction between students and teachers while delivering content (Wagner et al, 2008).

Problem Statement

Current advancements in e-learning technology can benefit students learning accounting in a traditional classroom setting by enhancing their knowledge, abilities, and attitudes. In a technologically advanced world, the techno generation is developing. E-learning technology integration would be a logical next step in their growth trajectory as they develop their accounting programme (Kashora, 2012). However, traditional teaching methods (passive approach) are still used in Sri Lankan classrooms to impart accounting knowledge. As a result, there is a growing discrepancy between the knowledge and abilities demanded of accounting practitioners in the field and those of the generation of accountants being created by institutions. This study aims to determine how the development of E-learning technologies benefits accounting topic learning and teaching in a classroom context.

Research objectives

This study expects to achieve the following:

1. Identify the importance of E-learning in general education.
2. To assess the usability of E-learning in accounting education at senior secondary level in schools.
3. To explore the potential of ICTs in the development of pedagogical methodologies in accounting education in schools.
4. Suggest to develop E-learning approach that would assist to enhance learning abilities in accounting subject at senior secondary levels in Sri Lankan schools.

Limitations of the study

- The main limitations will be around issues of reliability and validity. For instance, a fully measuring instrument will not give reliable measurements which can be become a limitation to the study.
- E-learning technologies is currently a topical areas, therefore there is the chance of replication of some research results elsewhere.
- The time of study is limited to the three months.
- The study sample will be selected only from two schools in Western province.

Operational Definition of the Key Terms

- **E- Learning**

E-learning is learning with the electronic devices as the only learning tool; that is the way of electronic learning, online learning or the can find understanding anytime and anywhere. E-learning can be achieved through digital instruments whether by computer, the internet, satellite broadcast, compact disk or interactive TV.

- **Accounting**

Accounting is a problem solving subject like mathematics which provides information to the users to make financial decision about the business. Accounting curricula for school level students are prepared and implemented by the National Institute of Education in Sri Lanka.

- G.**C.E. Advanced Level**

The students who belong to the age group of 17-19 in their study in grades 12 & 13 in general education system of Sri Lanka.

Research Methodology

Research Structure

This is and mixed (Quantitative and Qualitative) approach study. Pre-test and Post test Experimental method was employed. The students were divided into two groups as an experimental and control group. The variables include group and a control group. The variables include the students' ability and teacher's ability. The independent variable is the impact of accounting E-learning. The dependent variable is the control group and experimental group with learning achievement.

Sample

The study sample was a total 20 students divided into two groups. 10 students were in each class (Control and experimental).

Measurement

The Study applied experimental design that was division into the experimental group and control group learning effect evaluation was done using pre-test and post test. In order to achieve the purpose of the study, the experimental group applied E-learning strategy and the control group applied traditional teaching strategy (Chalk and talk). The study proceeded for 12 weeks. The experimental design model is as following:

Table: Experimental Design Model

Group	Pre Test	Treatment	Post Test
Experimental	Y1	X	Y2
Control	Y3	-	Y4

Y1, Y3 - Pre test, Y2, Y4 – Post test, X – Treatment

Research Tools

E – learning Content

The teacher decided the learning goals, learning content and analyzes the students' capabilities, develop material and media, implement learning, check the evaluation and correct the comprehensive in order to achieve the learning goal and allow for an acceptable learning effectiveness.

Basic ability scale form

Each question includes two parts based on the ratio of different learning hours and the degree of curriculum involvement. The scale form is based on expertise validity.

E-learning achievement form

E learning achievement test is based on learning goals, are based on the ratio of different learning hours and the degree of curriculum involvement. The scale form is based on expertise validity.

Data analysis

In order to achieve the objectives of the study, the measurement is :

1. To analyze basic ability scale form depending on independent t-test based on mean and standard deviation.
2. To identify the differentiation of different learning styles for students learning accounting depending on ANCOVA and pre-test grades is covariance.

Ethical Consideration

APA's Ethical Considerations were taken into account when planned and conducted the study. APA ethics code (2017) and Greswell (2009) suggest that researchers should protect their research subjects, develop a level of trust with subjects and promote the integrity of research and to guard against misconduct.

Conclusion

The current study demonstrates the necessity for a thorough e-learning approach to accounting education for secondary school students in Sri Lankan schools. The best option for a better understanding of accounting would be an online course.

The literature reviewed in this study provided recommendations and a number of needs, and these analyses indicated certain difficulties and new findings. An e-learning framework for teaching accounting to secondary level students in Sri Lankan schools might be developed using a research analysis framework as the foundation.

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