

Repositioning Effect of Utilizing E-Learning Model in Enhancing Engagement and Promoting Active Learning Among Tertiary Education Students in Accounting

Ali-Okoro, O.C.M.

Department of Library, Information Science and Educational Technology
Imo State University, Owerri

[E-mail: aliokoroonyvechi_cm@yahoo.com](mailto:aliokoroonyvechi_cm@yahoo.com)

&

I.F. Okoro

Department of Curriculum/Instruction
Alvan Ikoku Federal College of Education, Owerri

Abstract

The study investigated the repositioning effect of utilizing e-learning model in enhancing engagement and promoting active learning among tertiary education students in accounting. One research question and two hypotheses were formulated to guide the study. Analytical research design was adopted. The population of the study consisted of all second year degree students in Imo State with a population size of 4, 570 students. A sample of 100 students was drawn through purposive and simple random sampling techniques involving second year degree students from each of the selected tertiary institutions. The instrument for data collection was a researcher-made four-point rating scale. The instrument had a reliability coefficient of 0.83 determined through the use of Cronbach-Alpha method. Data generated was analyzed using mean and standard deviation for the research question and Z-test was used to test the hypotheses at 0.05 level of significance. The findings of the study revealed that the repositioning effect of utilizing e-learning model enhanced behavioural, emotional, cognitive and agentic engagement and promote active learning among tertiary education students in accounting and there is no significant difference on the extent of students' behavioural, emotional, cognitive and agentic engagement in repositioning effects of using e-learning model in enhancing engagement and promoting active learning. It was therefore recommended among others that teacher-educators should adopt e-learning model in teaching accounting in tertiary institutions to enhance and promote active learning.

Keywords: Repositioning effect, e-learning model, engagement, active learning, accounting

Introduction

There are different motives of measuring results, evaluating performance and setting business-oriented goals by every business organization. This can only be achieved when every business organization understands the language of accounting. According to Ama (2010), it is difficult to participate in accounting processes if one does not understand and speak the language. Accounting has the purpose of providing useful information about economic activities to decision makers. The economic activities, among others, include information about recent activities and forecasts of what may happen in the future. The knowledge of accounting plays a significant role in enhancing the country's financial accountability and social economic development. Accounting is a compulsory subject for students who are studying core accounting courses in tertiary education. Accounting information is also used in the same manner managers do in business by administrators of government agencies and non-profit making organizations. Individuals use accounting information in managing their personal affairs and to file income tax returns.

Accounting is seen as the act of recording, classifying and summarizing in significant manner and in terms of money, transactions and events which are in part of at least of a

financial character and interpreting the results thereof (Ama, 2010:32). The inculcation of accounting education skills (classifying, recording, interpreting, communicating, measuring, analyzing and summarizing) should be provided to the learner for actual practice of skills implied in the concept for accounting to succeed in accomplishing its goals in the learners through teaching and learning process (Ali-Okoro, 2014). According to the Federal Republic of Nigeria (FRN, 2014), accounting, as a subject, is seen as one of the subjects extracted from business studies. Supporting the above view, Ali-Okoro (2014) defined accounting as the art of recording, classifying, interpreting, summarizing, analyzing and communicating economic information in a significant manner to allow informed judgement and decisions by the users of the information.

Accounting is a social science subject that is mostly viewed and considered as difficult and boring by many students despite its importance as it deals with figures just like in mathematics. Many methods exist for accounting instruction in the tertiary education institutions by the teacher-educators of accounting. Through observations by Okoro (2008), Udo & Udosen (2010) and Unamba, Izuagba & Ogbonnaya (2016), teacher-educators employ conventional method of instruction such as charts, flip charts, models, etc., which make the presentation in the teaching-learning environment to be passive and ineffective to students, thereby affecting their academic output. This condition brings lack of interest in studying the subject which tends to deal with numbers (Ali-Okoro, 2014). Numbers have the high possibility of frightening most students naturally if the concept is not brought home to the learners for meaningful learning to be recorded. There are tertiary institutions in Imo State that are located in both urban and rural areas in the different educational zones. They are as follows: Alvan Ikoku Federal College of Education Owerri (AIFCE, OW), Imo State University, Owerri (IMSU, OW), Imo State College of Education, Ihitte-Uboma, Eastern Palm University, Ogboko; Federal Polytechnic Nekede, Owerri; Federal University of Technology, Owerri (FUTO); University of Agriculture and Environmental Sciences, Ohaji-Umuagwo, among others.

Performance in accounting in tertiary institutional examinations as well as in external examination bodies such as Institute of Chartered Accountants of Nigeria (ICAN) are not satisfactory at all; moreover, students' performance in accounting was found to be below average in the accounting professional examinations in Nigeria in 2017 (ICAN, 2017). Less than 50% passed at credit level from 2008 to 2017 as revealed by the Institute of Chartered Accountants of Nigeria (ICAN). In 2012, the chief examiner's report confirmed that candidates exhibited very weak logical presentations on questions to manufacturing accounts as well as partnership accounts; and this had vigorous adverse effects on their performances (ICAN, 2017). These problems rose as a result of problems facing teaching-learning effectiveness of accounting at tertiary education level of Nigerian educational institutions. Due to this problem also, most of our Nigerian teacher-educators are very conversant with the use of conventional (lecture) method of instruction, thereby rendering the students passive and ineffective learners which affects their academic output (Udo & Udosen cited in Anulobi & Uzoma, 2012). This conventional method as identified, keeps the students passive in the classroom against the student-centred learning approach recommended by the FRN (2014).

Learner-centred approach of instruction is being advocated for in line with the development of proper values for the society at large. Acquiring both physical and intellectual skills which will enable individuals to be self-reliant and useful members of the society is one of the goals of tertiary education and this call for effective instructional delivery. The instructional method employed by the teacher plays an important role in the acquisition of skills and meaningful learning (Ukegbu & Unamba, 2015). Based on this, attention is focused on the mode of instructional delivery that shows the repositioning effect in our tertiary education

institutions in order to enhance the students' engagement and promoting active learning among tertiary education students in accounting. Enhancing the understanding of accounting principles requires pro-activity of students in accounting problems; as opportunities to develop, interact and share with their friends should be given to students through online environment. One of the best examples of the integration of accounting education in the 21st century is through the electronic learning (e-learning).

E-learning involves the use of technology to enhance learning including digital collaboration, satellite broadcasting, CDROMS, video and audio conferencing, mobile technology, interactive TV and web based technologies (Bennink, 2004). Many successes in outcomes of learning have been recorded as a result of combination of e-learning with face to face delivery. E-learning also seen as a component of flexible learning is a wide set of applications and processes, which use all available electronic media to deliver education and training (Eklund, Kay & Lynch, 2003). It also provides people with a flexible and personalized way to learn. It offers learning-on-demand opportunities and reduces learning cost. E-learning is individual - customized learning that allows learners to choose and review material at their own pace. E-learning may be delivered through numerous electronic media, including the Internet, intranets, extranets, satellite broadcast, audio/videotape, interactive television, and CD-ROM (Eklund, Kay & Lynch, 2003). It is not confined to online learning but it includes computer-based learning, web-based learning, virtual classrooms and digital collaboration.

E-learning is all about learning that occurs at the computer that enables the convergence of the Internet and learning, or Internet-enabled learning (Olaniyi, 2006). Further explaining, Olaniyi (2016) also construed that it is also the delivery of individualized, comprehensive, dynamic learning content in real time, aiding the development of communities of knowledge, linking learners and practitioners with experts. In the same vein, Pinto, Selvaggi, Sicignano, Vollono, Iervolino, Amato, Molinari & Grassi (2008) opined that e-learning is an abbreviation of electronic learning, indicating the provision of education and training on the Internet or the World Wide Web. The authors also construed that the internet offers numerous advantages compared with other mass media such as the provision of access to a large amount of information previously known only to individual specialists; permitting the use of images or video due to its flexible nature; and allowing the linking to Websites on a specific subject, thereby contributing to the expansion and upgrading of knowledge (P. 10).

Through the use of e-learning model, students are naturally made to learn individually thereby enhancing engagement and promoting active learning. Furthermore, teachers rely on engagement as an observable indicator of their students' underlying motivation during instruction (Furrer & Skinner, 2003). Engagement represents the range of actions students take to advance from not knowing, not understanding, having skill and achieving (Reeve, 2013). Engagement is highly important as it predicts important outcomes such as learning development (Unamba, Izuagba & Ogbonnaya, 2016). Engagement has four strong aspects as opined by Reeve (2013), namely; behavioural engagement, emotional engagement, cognitive engagement and agentic engagement.

Behavioural engagement connotes making a judgement of how actively involved, the student was in the learning activity would enhance assessment of his or her concentrations, attention and effort (Unamba et al 2016). Effective communication, the exhibition of a caring attitude towards students' learning, provision of active learning opportunities and the use of co-operative learning approaches enhances behavioural engagement. From the foregoing, high behavioural engagement leads to active learning with the total support of the instructional environment. Emotional engagement helps students to assure responsibility towards one another thereby motivating them to complete the task (Jones, 2012). According to Taylor and Staler (2013), there is a relationship between emotions and learning. Less motion connotes

less learning while more emotion promotes more learning. In other words, students who receive no feedback in class or on discussion board will not learn through that material post about that on a particular topic. From the foregoing, emotional engagement can be deduced to be the zeal and showing interest on task-facilitating emotion as well as the degeneration, distress or disregard of interest on task-withdrawing emotion. Discussion boards and problem-solving in e-learning model could create emotional engagement, which absolutely leads to active learning.

The attitudes and actions of teacher-educators show the level of engagement exhibited on the students. In other words, teacher-educators who use lower order questioning technique in classroom do not allow discussion of problem-solving strategies (Smart & Marshall, 2013). This simply means that the use of higher order questioning technique which is characterized by its complexity, allows students to brain-storm thereby giving them the opportunity to explain, justify and rationalize with others in the classroom. This makes the students to be cognitively engaged in classroom discussions. Therefore, cognitive engagement deals with the strategy of using higher order questioning technique in engaging students cognitively so as to achieve active learning during instructional process.

Agentic engagement is a new pathway for students' engagement in which students try to create a more motivational and supportive learning environment for themselves and which enables educators to support students' efforts to engage themselves (Reeve, 2013). A self-regulated learning environment for agentic learners to engage with supportive educators, who in-turn, encourage students to seek feedback and help them to learn from their mistakes is required. Therefore, there is need for teacher-educators and students to have the capability to tackle new and challenging situations. Increased levels of learning and higher motivational support will be achieved greatly when students are engaged agentially. Furthermore, Unamba et al (2016) investigated the use of flipped classroom model to enhance engagement and promote active learning among primary school pupils in algebra. Results revealed that the use of flipped classroom model enhance behavioural, emotional, cognitive and agentic engagement and promotes active learning among tertiary education students in algebra. The above studies were made using flipped classroom model and not e-learning, thus the major thrust of the present study.

Statement of Problem

Many methods exist in the teaching of accounts in some Nigerian tertiary education institutions. These methods of teaching are mainly teacher-centered approaches that involve the use of planned repetition as a teaching skill, and the use of lecture method that mostly do not allow students to comprehend the knowledge needed in the process of analyzing, evaluating and interpreting the accounting results. The processes such as addition and posting of business transactions on either debit or credit side, may not make the students to be critically thinking, thereby not promoting active learning and engagement as a result of finding it difficult to apply the knowledge of double entry principles. E-learning model has been adopted in the Nigeria educational system as one of the innovative measures of making students to be active learners. More so, e-learning has not been fully integrated and recognized as one of the major innovative strategies in the education curriculum. Could it be that e-learning has the capability of enhancing engagement of students in learning accounts in tertiary education to an extent?

Purpose of the Study

The main purpose of the study is to examine the repositioning effect of utilizing e-learning model in enhancing engagement and promoting active learning among tertiary education students in accounting. Specifically, it sought to:

1. ascertain the extent behavioural engagement, emotional engagement; cognitive engagement and agentic engagement promote active learning in accounting through e-learning model.

Research Question

1. To what extent do behavioural engagement, emotional engagement; cognitive engagement and agentic engagement promote active learning in accounting through e-learning model?

Research Hypotheses

The following hypotheses were tested at 0.05 level of significance;

1. There is no significant difference between the mean rating scores of students on the extent behavioural engagement, emotional engagement; cognitive engagement and agentic engagement promote active learning in accounting through e-learning model.
2. There is no significant difference between the mean rating scores of urban and rural students on the extent behavioural engagement, emotional engagement; cognitive engagement and agentic engagement promote active learning in accounting through e-learning model.

Methodology

The researcher adopted analytical research design in investigating the repositioning effect of utilizing e-learning model in enhancing engagement and promoting active learning among tertiary education students in accounting. The population of the study consists all the second year degree students in Imo State with a population size of 4, 570 students. Due to proximity, financial and respondents' constraints encountered by the researchers, purposive sampling technique was adopted and used to select the second year degree students from Alvan Ikoku Federal College of Education, Owerri and Imo State University, Owerri; while simple random sampling technique was used to select the respondents from the two different institutions. A sample of 100 students from two Local Government Areas in Imo State was drawn through the use of purposive and simple random sampling techniques involving one class from each of the selected tertiary institutions. One class here refers to second year degree students.

The instrument for data collection was researcher – made four point likert type of rating scale titled e-learning model in accounting (ELMA). It was designed based on the four features of engagement as opined by Reeve (2013) namely; behavioural engagement, emotional engagement, cognitive engagement and agentic engagement. The instrument was a modified four-point type of rating scale. The validity of the instrument was determined by two specialists in educational technology, from a specialist in measurement and evaluation department and two specialists in education accounting. The validators made efficient, valuable and vigorous corrections on the instrument. The corrections made the instrument to be very effective for the data gathered to be reliable enough for the study. A trial-test was carried out on tertiary education students outside the study sample using Cronbach-Alpha Statistics thereby establishing a reliability coefficient of 0.83. Mean and standard deviation were used to answer the research question while Z-test was used to test the hypotheses at 0.05 level of significance using SPSS version 17.0. Mean utilization of 2.50 and above was accepted while below 2.50 was rejected.

Results

Table 1: Mean and Standard deviation on behavioural, emotional, cognitive and agentic engagement

S/N	Item Statement	Mean	SD
Behavioural Engagement			
1	I am always punctual in e-learning classroom	6.57	0.9
2	I am highly attentive to accounts e-learning classroom	6.56	0.8
3	I work very hard in participating in e-learning classroom discussions	5.88	0.7
4	I try very hard in achieving maximally in e-learning classroom	5.68	0.8
5	I am always delighted in learning accounts through e-learning classroom	6.74	0.7
Cumulative Mean		6.28	0.8
Emotional Engagement			
6	I feel interested when I connect with my colleagues in e-learning classroom	6.45	0.9
7	I feel good whenever I learn new concepts using e-learning model	5.89	1.0
8	The e-learning class is fun	6.86	0.8
9	I am always involved in tackling issues discussed in e-learning classroom	5.77	0.7
10	I feel delighted whenever I am in e-learning classroom	5.68	0.8
Cumulative Mean		6.13	0.8
Cognitive Engagement			
11	I try to relate what I am learning to know what I am already know	5.89	0.9
12	I create my own examples to help me understand accounting concepts	6.37	1.1
13	I try in making various ideas to fit together with accounting concepts	5.58	0.7
14	I endeavour to connect my current learning with my own experiences	5.76	1.2
Cumulative Mean		5.90	1.0
Agentic Engagement			
15	Let my teacher-educator know my area of interest	5.56	0.6
16	Let my teacher-educator know my area of needs and wants	5.08	0.7
17	I make adjustments to ensure that my learning is made possible	5.56	0.8
18	I ask questions for clarity to my teacher-educator	6.78	0.7
19	I ask questions in order to learn more	5.90	0.9
20	I express my opinions freely in e-learning classroom	6.36	0.7
Cumulative Mean		5.87	0.6

Results in table 1 show extent of repositioning effect of utilizing e-learning model in enhancing engagement and promoting active learning among tertiary education students in accounting is highly positive as perceived in the cumulative means and standard deviations.

Table 2: Summary of the Cumulative Mean and Standard Deviation

	Behavioural	Emotional	Cognitive	Agentic
Mean	6.28	6.13	5.90	5.87
SD	0.8	0.8	1.0	0.6

Results in table 2 show that the mean of behavioural engagement is the highest ($x = 6.28$) followed by emotional engagement ($x = 6.13$), cognitive engagement ($x = 5.90$) and agentic engagement ($x = 5.87$) being the lowest. It clearly shows that behavioural, emotional, cognitive and agentic engagements promote active learning with emotional engagement having the highest standard deviation of 1.0 compared to cognitive and agentic engagements.

Table 3: Z-test analysis on gender

Gender	N	Mean	SD	z-cal	α	z-crt	Decision
Male	45	2.9	0.9	1.76	0.05	1.89	Accept H_0
Female	55	3.8	0.8				

The result in table 3 shows that z-cal value (1.76) is less than table value (1.89) at 0.05 level of significant. Based on the result, the null hypothesis is accepted, thus, there is no significant difference exists between the mean rating scores of students on the extent behavioural engagement, emotional engagement; cognitive engagement and agentic engagement promote active learning in accounts through e-learning model.

Table 4: Z – test analysis on location

Location	N	Mean	SD	z-cal	α	z-crt	Decision
Urban students	47	2.7	1.6	0.196	0.05	1.89	Accept H_0
Rural students	53	2.3	1.5				

The result in table 4 shows that z-cal value (0.196) is less than the table value (1.89) at 0.05 level of significance. Based on this, null hypothesis stated is accepted. This implies that no significant difference exists between the mean rating scores of urban and rural students on the extent behavioural engagement, emotional engagement; cognitive engagement and agentic engagement promote active learning in accounts through e-learning model.

Discussion

The study ascertained the extent behavioural, emotional, cognitive and agentic engagements of students promote active learning in accounting through e-learning model. It was therefore discovered that the extent students' behavioural, emotional, cognitive and agentic engagements help in repositioning effects of using e-learning model in teaching and learning accounting. The finding of this study also agrees Unamba, Izuagba & Ogbonnaya (2016) as well as the hypothesis that there is no significant difference on the students' extent of behavioural, emotional, cognitive and agentic engagements in repositioning effects of using e-learning model in enhancing and promoting active learning.

Conclusion

From the foregoing, it is therefore concluded that the e-learning model utilization has repositioning effect in enhancing engagement and promoting active learning during instructional activities.

Recommendations

Based on the findings of the study, the following recommendations were made:

1. In order to reposition the effect of accounting instruction, teacher-educators should endeavour to attend workshops, seminars and conferences organized by professional academic bodies in order to ensure adequate upgrade in the utilization of innovative technologies for instructional activities that enhance students' engagement in instructional activities and promotion of active learning.
2. Teacher-educators should endeavour to adopt e-learning model in the instructional delivery of accounts in tertiary education institutions so as to reposition the effect of enhancing engagement and promotion of active learning.

References

- Ali-Okoro, O.C.M. (2014). *Effects of powerpoint presentation in the teaching and learning of accounting in senior secondary schools*. An unpublished M.Ed Thesis, Imo State University, Owerri.
- Ama, G.A.N. (2010). *Intermediate financial accounting, theory and practice*. Port-Harcourt: Cutting-edge Publishing Company.
- Anulobi, J.C. & Uzoma, P.O. (2012). Effects of the use of powerpoint instructional slides on the academic performance of edu-tech students in Owerri: *Paper presentation at 2012 school of education conference, AIFCE Owerri, Imo State from 4th -7th July, 2012*.

- Bennink R. (2004). *Implementing e-learning from the corporate perspective*. Retrieved October 1, 2010, from www.knowledgetree.flexiblelearning.net.au/edition05/.../bennink.pdf
- Eklund, J., Kay, M., & Lynch, H. M. (2003). *E-learning emerging issues and key trends*. Retrieved October 21, 2010, from <http://pre2005.flexiblelearning.net.au/research/2003/elearning250903final.pdf>
- Federal Republic of Nigeria (2014). *National policy on education (6th ed.)*. Lagos: NERDC Press.
- Furrer, C., & Skinner, E.A. (2003). Sense of relatedness as a factor in children's academic engagement and performance. *Journal of Educational Psychology*, 92, 148-182.
- Jones, T. (2012). Community in the classroom: An approach to curriculum and instruction as a means for the development of student cognitive, social and emotional engagement in a high school classroom. *Doctoral Dissertation*. Retrieved on November 15, 2019, from <http://search.proquest.com/docview/126750757/fulltextPDF/142FE586590EF363FA/1?accountid=14645>
- Okoro, I.F. (2008). *Effects of cognitive styles, problem-solving and expository methods of teaching on students' achievement in home economics*. Ph.D unpublished Thesis, Abia State University, Uturu.
- Olaniyi, S. S. (2006). *E-Learning Technology: The Nigeria experience shape the change*. XXIII FIG Congress. Munich Germany.
- Pinto, A., Selvaggi, S., Sicignano, G., Vollono, E., Iervolino, L., Amato, F., Molinari, A., & Grassi R. (2008). *E-learning tools for education: regulatory aspects, current applications in radiology and future prospects*. National Center for Biotechnology Information, U.S. National Library of Medicine 8600 Rockville Pike, Bethesda MD, 20894 USA.
- Reeve, J. (2013). How students create motivationally supportive learning environments for themselves: The concept of agentic engagement. *Journal of Educational Psychology*, 105 (3), 579-595.
- Smart, J.B., & Marshall, J.C. (2013). Interactions between classroom discourse, teacher questioning and student cognitive engagement in middle school science. *Journal of Science Teacher Education*, 24, 249 – 267.
- Taylor, S.S. & Statler, M. (2013). Material matters: Increasing emotional engagement in learning. *Journal of Management Education*, 20(10). 1-22.
- Udo, A.L. & Udosen, I.R. (2010). Powerpoint utilization and academic performance of biology students in Akwa-Ibom State College of Education, Afgha-Nsit. *Proceedings of Nigeria Association for Educational Media and Technology: 31st Annual Convention and National Conference*. 1(3). 75-81.
- Ukegbu, M.N. & Unamba, E.C. (2015). Effects of Web-based mathematics instruction on mathematics achievement, attitudes, anxiety and self-efficacy of secondary school students. *Journal of Education, Media and Technology*, 19(1), 164-170.
- Unamba, E.C., Izuagba, N.J. & Ogbonnaya, C.N. (2016). The use of flipped classroom model to enhance engagement and promote active learning among primary school pupils in algebra. *Journal of Teacher Perspective*, 11(1). 198-210.