

Effect of E-Learning and Student Motivation among 200 Level Undergraduate Students of Umaru Musa Yar'adua University Katsina, Nigeria

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Abstract

This study examined the significant effect of E-learning and its role in instruction of students of Umaru Musa Yar'adua University Katsina. The objective of the study was to determine the strength of the relationship between-learning and motivation among students participating in the research. The study used descriptive research design of survey type. The population of the study covered a total number of Four Hundred and Eighty-Eight (488) 200 level Education students out of which 217 students were sampled using simple random sampling technique. Two validated instruments were used namely (E-learning questionnaire and Intrinsic Motivation questionnaire) The instrument was applied to collect information from students of Umaru Musa Yar'adua University Katsina, the result of the findings shows that e-learning is an element which affects students' motivation. The statistical method of Pearson's correlation coefficient was used for data analysis.

Keywords: *E-learning, Students' motivation*

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Background to the Study

Nowadays, the fast development of information systems and the Internet technology not only makes a lot of progress in multi-media and the Internet industry, but it also affects innovation in the educational learning style. E-learning is used as another option to face to face education. As a matter of fact, its use increases in a direct proportion with the increase number of students. This has made educators exert a lot of effort to help the learners to get interactive content that is full of multimedia, because it has been proven that it has a significant effect on the process of learning. Different and interesting methods of teaching in educational delivery systems like interactive and reflective schools of thought have, challenged the traditional attitudes to education. Keramati, Afshari-Motrad, and Karmrani, (2011).

Literature review

E-learning has been introduced as a tool in the learning process in the majority of the Nigerian universities. As an outcome of this, many universities are using e-learning in different ways. For this reason the necessity for academic and technical knowledge to teach students how to utilize the Internet and the knowledge is becoming core proficiency for many Lecturers. Some scholars have predicted that the traditional classroom will vanish. E-learning has entered the instruction as well as the corporate world in many different ways and it also completes the traditional delivery styles. It has enabled the traditional educational patterns like distance learning Keramati, Afshari-Motrad, and Karmrani (2011).

1. E-learning according to Li, and Masters, (2009). can be defined as a learning process created by interaction with digitally delivered content, network-based services and tutoring support Abdelaziz, Samer, Karam, and Adbrelrahman (2011). E-learning is any technologically mediated learning using computers whether from a distance or in face to face classroom setting (computer assisted learning), it is a shift from traditional education or training to ICT-based personalized, flexible, individual, self-organized, collaborative learning based on a community of learners, teachers, facilitators, experts. Afzal, Ali, Aslam, and Amid, (2010). E-learning is the use of Internet technologies to enhance knowledge and performance. E-learning technologies offer learners control over content, learning sequence, pace of learning, time, and often media, allowing them to tailor their experiences to meet their personal learning objectives. Innovations in e-learning technologies point toward a revolution in education, allowing learning to be individualized (adaptive learning), enhancing learners' interactions with others (collaborative learning), and transforming the role of the teacher. Edmundson (2007). The integration of e-learning into education can catalyze the shift toward applying adult learning theory, where educators will no longer serve mainly as the distributors of content, but will become more involved as facilitators of learning and assessors of competency. E-learning refers to the use of Internet technologies to deliver a broad array of solutions that enhance knowledge and performance.

Technology suggests that new methods that can be applied to make instruction easier and interesting to learners because new technologies make modifications in instruction. El-Seoud, Seddik, Tak-Eddin, Ghenghesh, Nosseir and El-Khouly (2013), Many proponents of e-learning consider that everyone should be prepared with basic knowledge of technology, as well as utilize it as a means of getting educational aims (E-learning, 2013).

Moreover, El-Seoud, Seddiek, Taj-Eddin, Ghenghesh and El-Khouly (2013). there have been two common e-learning modes: distance learning and computer assisted instruction. Distance learning uses information technologies to deliver instruction to learners who are at remote locations from a central site. Computer assisted instruction (also called computer-based learning and computer based training) uses computers to aid in the delivery of stand-alone multimedia packages for learning and teaching. Multimedia learning uses two or more media, such as text, graphics, animation, audio, or video, to produce engaging content that learners access via computer.

Holley (2009), blended learning, a fairly new term in education but a concept familiar to most educators, is an approach that combines e-learning technology with traditional instructor-led training, where, for example, a lecture or demonstration is supplemented by an online tutorial. Faculty, Department, administrators, and learners find that multimedia e-learning enhances both teaching and learning. El-Seoud, Seddiek, Taj-Eddin, Ghenghesh and El-Khouly (2013). These advantages can be categorized as targeting either learning delivery or learning enhancement. Learning delivery is the most often cited advantage of e-learning and includes increased accessibility to information, ease in updating content, personalized instruction, ease of distribution, standardization of content, and accountability. Holley (2009). Accessibility refers to the user's ability to find what is needed and when it is needed. Improved access to educational materials is crucial, as learning is often an unplanned experience. Updating electronic content is easier than updating printed material. Fee (2005). E-learning technologies allow educators to revise their content simply and quickly. Learners have control over the content, learning sequence, pace of learning, time, media, which allows them to tailor their experience to meet personal learning objectives.

Internet technologies permit the widespread distribution of digital content to many users simultaneously anytime and anywhere. An additional strength of e-learning is that it standardizes course content and delivery. However, Lonescus (2012). e-learning can be designed to include outcomes assessment to determine whether learning has occurred. Advantages in learning enhancement are less well recognized but potentially more revolutionary aspect of e-learning than are those related to learning delivery. E-learning technologies offer educators a new paradigm based on adult learning theory, which states that adults learn by relating new learning to past experiences, by linking learning to specific needs, and by practically applying learning, resulting in a more effective and efficient learning experiences. E-learners have demonstrated increased in retention rates and better utilization of content, resulting in a better achievement of knowledge, skills, and attitudes. Li, and Masters, (2009). Multimedia e-learning offers learners the flexibility to select from a large menu of media options to accommodate their diverse learning styles.

Motivation is at the center of all human activity, including school learning and achievement. The best asset to any committed teacher is a crop of motivated learners. E-learning makes teacher's work easier, it motivate the students to learn and the attainment of teaching objectives are ensured. However, learner motivation depends on a number of factors, among which are teacher motivation and competence, supportive parents, peer group member and the provision of conducive learning environment and resources. Above all, for the learners themselves to have the requisite level of motivation, they most poses the intellectual ability to learn and the necessary background experiences on which to build new learning. A supportive classroom must ensure the readiness of the learners for the contents of learning. This means that they must have the mental abilities (intelligence, necessary level of cognitive development), emotional stability and attention span. Holley (2009).

It is essential for teachers to understand their students' motivations. Although students take online courses with the intention of successfully completing them, they tend to fail for a number of reasons. The success or failure of online instruction is perhaps related to student motivation.

To stimulate students, teachers should Lonescus (2012).

1. Keep in mind that motivation must be natured in students.
2. Explain to their students how the online environment may be used.
3. Encourage interaction and collaboration among their students.
4. Build study groups so that students will no longer be studying in isolation.
5. Help students to make friends by meeting fellow students in the online environment.
6. Interact with their students by monitoring the online presence of them and supplying them with continuous feedback.
7. Construct their learning materials and environment to target their students.
8. Facilitate the students' interaction with the online material by explaining the goal behind designated tasks.
9. Be aware of students' frightened, worries and nervousness because such anxiety may have a negative effect on their accessibility and motivation.

All of these approaches could be crucial tools to develop new strategic teaching plans that might assist lecturers to influence learners' level of motivation. Ciganek (2012), asserts that "learners learn more using computer-based instruction in comparison to traditional classroom methods." One possible factor for this seems to be the increased level of learner participation through interactivity. This results in higher levels of cognitive engagement and perseverance to complete the task.

Moreover, studies also shows that the success of e-learning methods in Nigerian universities can only be measured according to the effectiveness of delivery. Therefore, the adoption of e-learning initiatives falls considerably on the training of staff which is really a major challenge. It has been acknowledged that many lecturers are reluctant in accepting aspects of technology in the teaching process. Unfortunately, teachers that are not well trained might face difficulties in application use Elkhorly (2010).

Furthermore, in order for success to occur university lecturers must accept, implement and adopt technological advancements offered by e-learning. Such new educational approaches are imperative in order to maintain the quality of courses Holley (2009), Having said that, training lecturers on how to use e-learning to enhance teaching practices should not focus primarily on how to use the hardware and software Elkhorly (2010). but rather on how to be adaptable to both formal and less formal teaching methods and techniques Fee, (2005).

The instructor prepares the course material through a number of educational strategies to suit the different learning styles of students. Lecturers can use a number of strategies to highlight the goals of an assessment Lonescus (2012).

1. Explain to students why the task is important and interesting to them. It may be useful to link the task to practices that the students may use in their professional life.
2. Define the learning objective of the task. Such objectives will identify the performance standards that a student needs to meet to reach the desired goal.
3. Give advice in relation to the time required to complete the activity.
4. Provide preliminary exercises that the student can practice, thereby building their confidence and boosting their motivation.

All these elements should help students to understand online exercise goals which in turn might increase their motivation. Also assessments can be formative, i.e. taken throughout the duration of the course or summative, at the end of the course Edmundson (2007). The most appropriate method of obtaining the student's awareness is through a summative assessment, which is carried out towards the end of the course. The student's performance, or achievement, may be apparent throughout the course in the form of "assignments, tests, and class discussions," but in many classroom activities learning "is fugitive, recordable only at great cost and inconvenience" Holley (2009). However, e-learning tools can make assessment more simplified by changing a difficult task into a more achievable one, by enabling an interactive approach to course assessment.

Motivation to learn

Promoting motivation to learn is one of the main principles for efficient education Isa, and Manuel (2011). Motivation to learn reveals that a student desires to take part in, and learn from, a training activity Isa, and Manuel (2011). Motivation to learn in the context of the theory of planned behavior (TPB) signifies an attitudinal variable. Student motivation is often parted into two types: Intrinsic motivation and extrinsic motivation.

Intrinsically motivated students strongly involve themselves in learning out of unique thing, interest, or gratification, or in order to attain their own scholarly and personal objectives. Intrinsically motivated students like to use strategies that need more struggle and that let them to process information more extremely. Extrinsically motivated students are tending to put forth the least amount of struggle necessary to get the most reward Afzal, Ali, Aslam, and Amid (2010).

Research Objectives

1. To determine the effect of e-learning on students motivation in Umaru Musa Yar'adua University Katsina
2. To find out the effect of e-learning on male and female students motivation of students of Umaru Musa Yar'adua University Katsina.

Hypotheses

- Ho₁:** There is no significant influenced of e-learning on students motivation in Umaru Musa Yar'adua University Katsina
- Ho₂:** There is no significant gender difference in e-learning on male and female students motivation of Umaru Musa Yar'adua University Katsina.

Research Methodology

The statistical population in this study is Four Hundred and Eighty Eight (488) 200 level students of Department of Education Umaru Musa Yar'adua University Katsina. The sample volume has been calculated using required sample size from the research Advisors as 217students. In order to select the members of sample, the researcher used simple random sampling technique.

Reliability of the Instruments

After being revised in the light of expert's suggestions, the questionnaires were pilot tested among 40 students that formed part of the population but outside the sample of this study. The instrument was administered once and split-half method involving odd and even numbered items were observed. The scores were then correlated using Cronbach alpha. (e-learning questionnaire 0.63 and intrinsic motivation 0.74), that is presented in Tables 2 & 3. In order to test the hypotheses an expert-designed questionnaire was used for e-learning and intrinsic motivation which included 18 questions each, it was according to 5-point Likert Scale (1=undecided, 2= strongly disagree, 3 = disagree 4= agree, 5 =strongly agree).

Analyses and Results

This section presented the results and analysis of data.

After the data has been collected from the sample an analysis inferential statistic involving paired sample correlation analysis (Pearson Product Moment Correlation) were used to report research findings. The justification behind employing Pearson Product Moment Correlation is that in all cases (hypotheses) two variables or groups were used. Data is interval and collected from fairly large sample size.

Findings showed that results are consistent with the hypotheses. The results of the research showed, that there is a significant relationship between e-learning and students' motivation. Also the findings indicated that when teachers apply e-learning, more motivation is generated by students and vice versa..Considering the data collected the correlation matrix between variables and gender has been computed. The computed coefficient in the matrix is presented in table 4.

Table 1: Analysis of Gender of Respondents (Students)

GENDER	POPULATION	PERCENTAGE
Male	105	47%
Female	112	53%

Table 2: Reliability Statistics (e-learning)

Cronbach's Alpha	N of Items
.639	18

Table 3: Reliability Statistics (Motivation)

Cronbach's Alpha	N of Items
.744	18

Table 4: Inter-Item Correlation Matrix between e-learning and motivation

	E-learning	Gender	Motivation
E-learning	1.000	-.372	.999
Gender	-.372	1.000	-.369
Motivation	.999	-.369	1.000

Conclusion and Suggestions

This study highlighted the significant relationship between e-learning and students' motivation so, students are more likely to be more motivated when applying e-learning. If students are more motivated to learn, then they are more likely to be engaged; and if they are engaged and engaged successfully, they are more likely to achieve the learning objectives Cheng, (2006). So, definitely it would be extremely interesting and attractive to utilize e-learning as a standard device in the instruction of university students. Looking at the conclusion of this study, the researcher provided some suggestions that:

1. If students have computers and the Internet, they can learn anytime and anywhere, use materials repeatedly, and study the difficult part by themselves.
2. A University teacher should use e-learning strategy to strengthen students' learning motivation. And teachers should improve their skills in using e-learning strategy to enhance learning effectiveness. The school should also have a plan for teachers to conduct e-teaching seminars or conferences and to invite e-learning experts to make speeches and demonstrations to enhance the teachers' capabilities and share experiences.

In short, e-learning strategy facilitates student participation and communication. And therefore, teachers should develop e-teaching skills so as to encourage students in the use of e-learning activities and continued research should focus on e-learning styles and receptiveness of students to the topic of e-learning in future.

References

- Abdelaziz, M., Samer, K.S., Karam, O., Adbrelrahman, A. (2011). Evaluation of e-learning program versus traditional lecture instruction for undergraduate nursing students in a faculty of nursing, *Teaching and Learning in Nursing*, 6(2), 50-58.
- Afzal, H., Ali, I., Aslam, K. M., Amid, K. (2010). A study of University students' motivation and its relationship with their academic performance, *International Journal of Business and Management*, 5, (4), 80-88.
- Cheng, K., (2006). A research study on students' level of acceptance in applying e-learning for business courses- a case study on a technical college in Taiwan, *Journal of Academy of Business*, 1, (2), 265 – 270.
- Ciganek, A. (2012). Critical factory for e-learning in developing countries: A comparative analysis between ict experts and faculty, *Computers and Faculty, Computers and Education*, 58, (2), 843-855 E-learning (2013), Available. <http://en.wikipedia.org/wiki/E-learning>.
- Edmundson, A., (2007). *Globalized e-learning cultural challenges*, (USA: Idea Group Inc). White Plains, NY: Longman
- Elkhorly, M. (2010). *Cases on Challenges facing e-learning and national development: Institutional studies and practices e-learning in Egypt*, 1, Edit: Ugur Demiray, Anadolu University, Eskisehir – Turkey.
- El-Seoud, S., Seddiek, N., Taj-Eddin, I., Ghenghesh, P., El-Khouly, M. (2013). *The effect of e-learning on Learner's Motivation: A Case Study on Evaluating E-Learning and its Effect on Egyptian Higher Education*, *The International Conference on E-Learning in the Workplace 20* (3) (ICELW), New York.
- El-Seoud, S. A., Seddik, N., Tak-Eddin, I. A. T. F., Ghenghesh, P., Nosseir, A., El-Khouly, M.M. (2013). *E-Learning and motivation effects on Egyptian higher education*, 16th International Conference on Interactive Collaborative Learning (ICL) and 42nd International Conference on Engineering Pedagogy, Kazan, Russia.
- Fee, K. H. (2005). *Delivery e-Learning: A complete strategy for design application and assessment*, London and Philadelphia: Kogan Page.
- Holley, D. (2009). Which Room is the Virtual Seminar in Please, *Education and Training*, 44 (3), 112-12. <http://dx.doi.org/10.1108/60400912010424283>.
- Isa, F. A, Manuel, D. A. (2011). Increasing the quality of learning through changes in motivation, *Social and Behavioral Sciences*, 29, 1373- 1379.

- Keller, J. & Suzuki, K. (2004). Learner motivation and e-learning design: A Multinationally validated process, *Journal of Educational Media*, 29 (3), 229 – 239.
- Keramati, A., Afshari-Motrad, M., Karmrani, A. (2011). *The role of readiness factors in e-learning outcomes: An empirical study*, *computers and education*, 57 (3), 1919-1929.
- Li, H., Masters, J. (2009). E-learning and knowledge management in the early years; where are we and where should we go". *Knowledge management and e-learning, An International Journal*, 1, (14), 245 – 250.
- Lonescus, A. (2012). New e-learning method using databases, *Datagae Systems Journal*, 13 (3), 35-46.