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UTILIZATION OF MOODLE LEARNING MANAGEMENT SYSTEM (LMS) BY UNDERGRADUATE STUDENTS AT THE KINGS UNIVERSITY COLLEGE, GHANA

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ABSTRACT

Today, university students have become so much inclined with technology with a majority of them having personal computers at their disposal. In sub-Saharan Africa and Ghana particularly, emerging evidence has suggested a broad range of circumstances surrounding the use of a learning management system in improving teaching and learning. The purpose of the study was to examine how effectively the learning management system is being utilized by Ghanaian university students, particularly at Kings University College, Accra. The survey research design was used for the study. Using questionnaires, data were collected from 178 undergraduate students in finding out their awareness, challenges and future use of the MOODLE LMS. The analysis of data revealed the channel of awareness of the MOODLE LMS was very low ($M=1.34$, $SD=0.44$). Again, the students were experiencing challenges such as poor internet

connectivity, lack of computer skills among others when using the platform ($M = 4.55$, $SD = 2.15$). In spite of this, they were willing to use the MOODLE LMS in future for their academic work ($M=4.42$, $SD=2.20$). The outcome of the data analysis perhaps suggests that acquiring adequate technology infrastructure, organizing seminars and asking students to use the LMS may not enough. Furthermore, effective utilization of the LMS should be based on mandatory institutional policies and objectives. The study contributes to the discourse on the integration of the LMS from the perspective of undergraduate students studying in a Ghanaian private university. Based on the findings, the study recommends effective computer training for students as it will go a long way in making the e-learning platform friendlier to use.

Key Words: Moodle LMS, University, Ghana, E-Learning

INTRODUCTION

The 21st century has seen rapid development and growth in the use of numerous technological devices such as computers, laptops, mobile phones, iPods among others. The emergence of the internet has accelerated the incorporation of online educational resources such as electronic textbooks and reading materials, e-libraries into the curricula of higher learning institutions. As a result of this, the application of e-learning continues to gain importance in higher education globally. At the moment, the integration of educational technology in tertiary education has profoundly led to a new teaching and learning paradigm

Today, majority of lecturers in various educational establishments across the world have taken advantage of the several innovations of the information and communication technology in delivering online educational materials to their students using the Learning Management System. The paradigm shift has facilitated a blended form of learning combining traditional face-to-face lecture style and web-based form of learning (Obisat, Airawashdeh, Altarawneh, & Altarawneh, 2013).

As explained by Coates, James and Baldwin (2005) an LMS is an incorporate a varied variety of instructional and educational tools, thus building an online learning atmosphere where students can easily access learning and teaching materials irrespective of time and place and could effectively contribute to online discussions. A significant number of public universities in Ghana such as the University of Ghana, the University of Education among others are blending online learning with their traditional methods of teaching, allowing working students to efficiently continue their education while pursuing their personal goals and professional careers. A few Ghanaian private universities such as the Central University College that have fruitfully embraced an LMS to supplement to enhance their teaching and learning activities (Marfo & Okine, 2010).

The Kings University College was established in February 2009 as a privately-owned tertiary institution. In 2013, the university was among the few private universities that had successfully introduced the Moodle LMS as a supplement to its traditional face-to-face lecture room teaching and learning methodology. Regrettably, a few undergraduate students I interacted at the Kings University College indicated that the system had been underutilized since its introduction by the University. The views of these students seemed to suggest that the system does not meet their expectation. It is against this background that the study was carried out to establish: whether undergraduate students were using the Moodle LMS for all their academic work? The study intends to find out why this is this problem is so.

The objectives of the study;

1. The channel of awareness of the Moodle LMS by the students
2. The Challenges encountered by students while using the Moodle LMS
3. To find out whether students will use the Moodle LMS for their future academic work.

The findings of the study sought to contribute to the ongoing e-learning discourse with new and fresh ideas from the perspective of university students learning in a private university such as the Kings University College, Accra.

LITERATURE REVIEW

Claar, Dias and Shields (2014) and Ellis (2009) strongly believe that a well-planned higher academic institution aspiring to adopt an LMS should judiciously select one that would be able to accomplish six central activities for the institution. According to these scholars, these activities comprise; combined teaching initiatives on a scalable online learning platform; centralized and automated administration; use of self-service and self-guided services; assemble and deliver learning content rapidly; support portability and standards and personalize content and enable knowledge re-use. In addition to the above, Salerom (2009, p. 277) was of the view that the most vital success elements for the choice of an LMS are “asynchronous and synchronous communication tools, usability, content structure, standards compliance, cost, easy maintenance, students’ attitude, assignments, and multimedia.”

Additionally, Chaubey and Bhattacharya (2015) deliberate on several characteristics that a suitable LMS should be equipped with in order to be helpful to both faculty members and students in general. These researchers recognized interactivity, the provision of learning goals with content, teaching, assessment, tracking of progress and integrating of legacy systems as vital features that an LMS should have. Furthermore, they believe that the safety of an LMS should not be taken for granted as it could go a long way to breach the entire system depriving users of its useful benefits.

Dahlstrom, Brooks and Bichsel (2014) merging findings from three sources of about 800 educational institutions, 17,000 faculty and 75,000 students from their 2013 and 2014 EDUCAUSE survey came out with fascinating findings. According to them, whereas both faculty and students value the LMS as enrichment to their teaching and learning experiences, only a few used the advanced features to their fullest capacity. They also noted that user satisfaction was the highest concern for the basic LMS features and lowest for features designed to foster collaboration and engagement. Besides, both faculty and students believed that they could be more effective users if they were more experienced and knowledgeable about its features.

RESEARCH METHODOLOGY

The researcher in this study used the cross-sectional survey method as it helped to collect information from sample information from a sample rather than from an entire population at one point in time. The population comprised all undergraduate students at the Kings University College, Accra. The total number of undergraduate students was 550. Using the convenience sampling technique, a total number of 178 undergraduate students were selected for the study. The questionnaire was used as the main instrument for collecting data for the study. This is because the interview schedule could not be used for this study due to the large sample size. The questionnaire gave the respondents enough time to fill out the questions and return them on time.

On entering the Kings University College campus, the researcher had to introduce himself to the Registrar of the University. After establishing a rapport with the Registrar and Lecturers and being granted permission, the researcher was allowed to distribute the questionnaires to the undergraduate students who were at lectures at the time of the study. The students exhibited enthusiasm in the completion of the questionnaires. All the questionnaires could however not have been distributed in a single day as some of the respondents did not turn up for lectures. At the end of the data collection, 190 respondents answered and returned the questionnaires filled. Out of this number, 178 questionnaires were used for the analysis as they had been properly filled. To safeguard against errors, the researcher conducted a pretest of the instrument before the commencement of the data collection.

DATA ANALYSIS

This study examined the views of undergraduate students on the use of the MOODLE LMS. Data analysis was conducted using descriptive statistics. Thus means and standard deviations. A total number of 178 students responded to the questionnaires with a response rate of 89%. The gender distribution of males were (53.9%), females (46.1%). Regarding age, the majority of respondents (80%) were below 22 years whilst 20% were above 23 years. Students' representations were as follows: level 100 (23.2%), level 200 (19.8%), level 300 (24.3%) and level 400 (28.5%).

The findings obtained from the study have been presented analyzed and presented under the following themes: Awareness of the Learning Management System; Challenges of using the LMS; and Future use of the MOODLE.

CHANNEL OF AWARENESS OF THE MOODLE LMS

The MOODLE LMS enables students to their submit assignments online, download course materials, partake in discussion forums, quizzes among others. Table 1. Below presents the channel of awareness of the MOODLE LMS by undergraduate students at the Kings University College.

Table 1: Channel of Awareness of MOODLE LMS.

Channel of Awareness	Mean	Standard Deviation
Awareness Subscale (5 Items)	1.34	0.44
Lecturers	1.69	0.69
Friends	1.40	0.47
Kings University website	1.25	0.40
Orientation	1.14	0.37
Notice Boards	1.24	0.27

Source: Field Data, 2018.

N=178 in all cases across

The analysis of results from Table 1 revealed that the channel of awareness of the MOODLE LMS by undergraduate students at Kings University College was very low (**M=1.34, SD =0.44**). However, **the** majority of the undergraduate students indicated that they heard about the MOODLE from their lecturers (**M=1.69, SD=0.69**). Others equally became aware of the system from their friends(**M=1.40, SD=0.47**).On the other hand, a few students(**M=1.14, SD=0.37**) also became aware of the system during their orientation program when newly admitted into the Kings University College and others through by checking on the various notice boards on campus (**M=1.24, SD=0.27**).

CHALLENGES FACED BY STUDENTS WHILE USING THE MOODLE LMS

For effective utilization of the Moodle platform, one may need to have adequate infrastructure and technological skills. The challenges faced by undergraduate students whiles using the MOODLE LMS has been presented in Table 2.

Table 2. Challenges encountered whiles using the MOODLE LMS.

Challenges	Mean	Standard Deviation
Challenges Subscale(6 items)	4.55	2.15
Using the MOODLE LMS is stressful	4.56	2.03
It is frustrating using the MOODLE LMS	4.55	2.23
There is a lack of adequate ICT Infrastructure	4.57	2.19
I lack adequate computer skills on how to use the MOODLE LMS	4.65	2.45
Poor internet connectivity affects my usage of the MOODLE LMS.	4.76	2.67
I don't have a personal computer to use the MOODLE LMS	4.23	1.34

Source: Field Data, 2018.

N=178 in all cases across

From Table 2, the result of the data analyzed revealed that undergraduate students at experienced high levels of challenges when using the MOODLE LMS (**M = 4.55, SD = 2.15**). From the analysis, the majority were battling with poor internet connectivity on campus (**M= 4.76, SD=2.67**). Others lacked adequate computer skills (**M=4.65, SD=2.45**) whiles others lacked a personal computer to enable them effectively use the system (**M=4.23, SD=1.34**).

FUTURE USE OF MOODLE LMS

Majority of university students may use the LMS to access their lecture notes and reading materials. Table 3. Presents the future use of the MOODLE LMS by undergraduate students of the Kings University College.

Table 3. Future use of the MOODLE LMS.

Future use of Moodle LMS	Mean	Standard Deviation
Subscale (3 items)	4.42	2.20
I will use the MOODLE LMS in the future studies	4.51	2.45
I will use the MOODLE LMS on a regular basis in the future for my course work	4.45	2.14
I always try to use the MOODLE LMS to do my academic work due to its useful features	4.32	2.01

From Table 3, undergraduate students are willing to use the MOODLE in for their future studies (**M=4.42, SD=2.20**). The analysis reveals that undergraduate students will use the MOODLE LMS for their future course work (**M=4.45, SD= 2.14**). Also, they agreed to the fact that that they will use the MOODLE LMS to do all their academic work as a result of its significant features (**M=4.32, SD=2.01**).

DISCUSSION OF RESULTS

It could be inferred from the analysis that the channels through which undergraduate students at Kings University College became aware of the existence of the MOODLE LMS were very low (M=1.34, SD=0.44). This possibly indicates that the majority of under graduate students were not aware of the existence of the MOODLE LMS. This revelation may come as a surprise because the MOODLE LMS link is so visible on the Kings University website that it should draw the attention of any curious undergraduate student to explore its contents. Others indicated that they got to know of the platform through their lecturers (M=1.69, SD=0.69) and friends (M=1.40, SD=0.47). This may suggest that the majority of the students rely on their lecturers and peers for information. As it's presently may not be attracting the students, the Kings University College could possibly create a lot of awareness on the use of the LMS for all academic on campus.

The analysis of results showed that undergraduate students were experiences challenges when using the MOODLE LMS (M = 4.55, SD = 2.15). Concerning these challenges encountered, poor internet connectivity (M=4.76, SD=2.67), lack of computer skills (M=4.65, SD=2.45), the inability of students owning their personal computers (M=4.23, SD=1.34) among others may go a long way to hinder the effective use of the MOODLE LMS.

About the future use of the MOODLE LMS, the willingness expressed by the undergraduate students is a great guarantee for its continuous utilization (M=4.42, SD=2.20). Undergraduate students appreciated the positive impact of the MOODLE LMS on their academic work (M=4.32, SD=2.01) and a result was prepared to use it in for their future studies (M = 4.45, SD = 2.14).

RECOMMENDATIONS OF STUDY

From the findings obtained from undergraduate students at the Kings University College, the following recommendations are made for the benefit of higher education institutions considering or contemplating to integrate the MOODLE LMS into their teaching and learning curriculum.

- First of all, there should be a mandatory intuitional policy supporting online teaching with clearly stated guidelines. Again, students should be made aware of the existence of the e-learning platform not only through posters, leaflets etc but through workshops, conferences, seminars and an annual orientation programs when newly admitted.
- Secondly, adequate computers should be made available for all students involved in e-learning. The cost of the computer could be included in their tuition fee when agreed by them. Students' restrictions on the use of computers in departmental libraries could perhaps be relaxed to enhance easy access to the e-learning platform.
- Finally, the University must ensure that there is an availability of internet facilities in offices, departments and students halls of residence. The internet should be reliable and fast so that students can access it at anytime and anywhere.

CONCLUSION

The MOODLE LMS is one of the e-learning platforms gaining much popularity on university campuses in Africa and beyond. As revealed by the study, there is a need for an awareness campaign and computer training for students at Kings University College. Also, there should be adequate computers and easily

accessible internet facilities for all students on campus. Lastly, the internet should be well planned so that students with personal laptops can have access anywhere and at any time while on campus.

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