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GENDERRESPONSETOWARDSLEARNINGMANAGEMENTSYSTEMSINENHANCINGTEACHINGANDLEARNING

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ABSTRACT

The study was undertaken to investigate the gender response towards Learning Management Systems in enhancing teaching and learning of Biology in Alvan Ikoku Federal College of Education, Owerri. Two research questions and one null hypothesis guided the study. The study adopted a descriptive survey design. The population of the study consisted of Biology teachers and students in the institution. Purposive and stratified random sampling techniques were used for the teachers and students respectively. Twenty five **(25)** teachers and three hundred students **(300)** were used as the sample size. Summative scale was used for data collection. The internal consistency of the instrument was **0.84** using Cronbach Alpha formula. The research questions were analysed using arithmetic mean while hypothesis was tested using Chi-square at **0.05** level of significance. The results of the analysis revealed that there is apathy towards the use of Learning Management Systems among female teachers and female students than their male counterparts. It was recommended among other things that teachers in tertiary institutions should adopt the use of Learning Management Systems as a blended teaching strategy in enhancing teaching and learning and ensure that it is strictly for academic purpose devoid of social interactions.

INTRODUCTION

Recent advances in Information and Communications Technology (ICT) in 21st century have, to a large extent, enhanced teaching and learning with respect to saving costs, time and seamless delivery of instructions (Chaubey& Bhattacharya, 2015). According to Ugwuoti, Iwu, Azoro, Okere and Omugo(2017), they emphasized the need for all tertiary institutions in the country to upgrade their educational system at all levels as evidences abound that traditional or conventional methods employed especially in teaching and learning of Biology does not produce the required results. Consequently, Learning Management Systems (LMS) seem to be one of the solutions towards effective teaching and learning.

Learning Management Systems (LMS) are web-based systems that allow teachers and/or students to share materials, submit and return assignments, and communicate online (Lonn&Teasley, 2009). It is a software application for the administration, documentation, tracking, and delivering e-learning education courses or training programs (Ellis, 2009). Among the numerous LMS used in tertiary institutions are Moodle, Google Classroom and Atutor just to mention a few. Learning Management Systems is a web-free blended learning platform developed for schools; aimed at simplifying the process of sharing files in a paperless way between teachers and students (Wikipedia). In addition, Learning Management Systems makes use of apps like the docs, slides for preparing contents for students, sheets for scoring and recording. Teachers create the classroom while students join class by invitation or through a private code. Despite the benefits and applications of Learning Management Systems, it has its disadvantages. These include: limiting connectivity because the teachers and students must have Learning Management Systems-supporting smart phones and email accounts before joining the group and access to the internet to send and receive messages.

To this end, there is a need to investigate the gender response towards Learning Management Systems in teaching and learning of Biology.

Purpose of the Study

The study sought to achieve the following:

(i) To compare gender response of male and female teachers towards Learning Management Systems in teaching of Biology.
(ii) To compare gender response of male and female students towards Learning Management Systems in learning of Biology.

Research Questions

The following questions guided the study:

(i) Is there gender response towards Learning Management Systems in teaching of Biology between male and female teachers?
(ii) Is there gender response towards Learning Management Systems in learning of Biology between male and female students?

Hypothesis

The following hypothesis was formulated for the study:

$H0_1$: There is no significant difference in gender response between male and female teachers towards Learning Management Systems in teaching of Biology.

METHODOLOGY

The study adopted a survey design approach due to the nature of the study in which purposive and stratified random sampling techniques were used for the teachers and students respectively. The population of the study consisted of all teachers and students of Biology in Alvan Ikoku Federal College of Education, Owerri. The sample comprised of 25 teachers and 300 students.

Instrumentation

A summative scale developed by the researcher was used. The scale was a 20 item opinion report on Gender Response Towards Learning Management Systems (GRTLMS). The scale had two sections. Section A sought the demographic information of the participants while section B was geared towards finding the participants' responses towards Learning Management Systems. It has a likert type structure on a 4-point scale ranging from Strongly Agree (SA) to Strongly Disagree (SD). Three (3) experts from Science Education Department of Enugu State University of Science and Technology validated the instrument. The reliability of the same instrument was confirmed by the use of internal consistency using Cronbach Alpha formula at **0.84.**

Results

Table 1: Mean result on gender response to Learning Management Systems between male and female teachers.

Source of variation	Mean response from male teachers	Mean response from female teachers	Decision
Gender response towards Learning Management Systems	2.73	2.51	Large extent

The result in table 1 shows mean responses of 2.73 and 2.51 for male and female teachers respectively. These responses are too a large extent; implying a positive response. The result also shows that male teachers have a better response towards Learning Management Systems than female teachers.

Table 2: Mean results on gender response to Learning Management Systems between male and female students

Source of variation	Mean response from male students	Mean response from female students	Decision
Gender Response towards Learning Management Systems	2.91	2.60	Large extent

The result in table 2 shows mean responses of 2.91 and 2.60 for male and female students respectively. These responses are too a large extent; implying a positive response. The result also shows that male students have a better response towards Learning Management Systems than female students.

Table 3: Chi-square test results on gender response between male and female teachers.

Source of variation	X^2cal	ᾱ	df	X^2critical	Decision
Gender Response towards Learning Management Systems	14.56	0.05	3	7.81	Reject $H0_1$

The result in table 3 shows that null hypothesis is rejected; implying that male teachers have better positive responses towards Learning Management Systems than female teachers. This is because X^2cal value of 14.56 is greater than the X^2critical value of 7.81 at 0.05 significant levels.

DISCUSSION

Findings revealed that male teachers and male students exhibited a better response towards Learning Management Systems in teaching and learning of Biology. The disparity in response between male and female teachers looks insignificant but of great importance because it contradicts the views of Yusuf and Balogun (2011) who reported gender has no place in determining the attitude of teachers towards ICT. Furthermore, as shown in table 2, male and female students show positive responses towards Learning Management Systems but male students are prone to ICT facilities than females. The positive response exhibited by both male and female students can be hinged on the fact that Learning Management Systems eases communication, sharing of ideas and provides a conducive learning platform. This is in agreement with Esber (2019) who reported that students irrespective of their sex have positive attitude towards

Learning Management Systems. The result in table 3 shows that there is a significant difference between male and female teachers' responses towards Learning Management Systems.

CONCLUSION

The paper analyzed gender response towards Learning Management Systems in enhancing teaching and learning of Biology in Alvan Ikoku Federal College of Education, Owerri. The findings of the study have shown that Learning Management Systems is a good application with lots of benefits such as promoting blended learning, bridging the gap between teacher-student relationship, flexibility towards teaching and learning and its affordability.

RECOMMENDATIONS

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

1. School authorities should provide free WiFi; a free wireless local area networking for students and teachers in order to enhance teaching and learning.
2. Parents should avail their children with portable smartphones and laptops as the study has shown that it is a necessity and not a luxury.
3. Teachers, especially female teachers and the students should be trained on the use of Learning Management Systems.

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