

# **Awareness And Participation in Massive Open Online Courses (MOOCs) Among Lecturers of Umar Ibn Ibrahim El-Kanemi College of Education, Science and Technology, P.M.B. 16, Bama, Borno State**

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## **Abstract**

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The study was conducted to investigate level of awareness and participation in Massive Open Online Courses (MOOCs) among Lecturers of Umar Ibn Ibrahim El-Kanemi College of Education, Science and Technology Bama Borno State. The population consisted of all the academic staff of the college. The study adopted a survey study design in which quantitative data were collected from the respondents to answer the research questions using a questionnaire as a research instrument. Simple random sampling techniques was employed in drawing the sample. Four research questions and four hypothesis guided the work. Mean and standard deviation were employed to answer the research questions. The hypotheses were tested using Chi-square. The findings of the study revealed that 53.1% of the lecturers were aware of MOOCs, but only 28.6% had participated in at least one MOOCs in the past year. The most popular MOOC platforms among the lecturers were SWAYAM, NPTEL, Coursera, and Future learn. The main reasons for participation in MOOCs were professional development, and academic advancement. The main reasons for non-participation were lack of awareness of MOOCs, low Internet connectivity, non-acceptance of MOOCs as a professional training. All the hypotheses were accepted to show no significant difference in all the mean ratings due to gender. On the basis of the findings and discussion, four recommendations were made including: the college administration to promote and support the use of MOOCs as a complementary source of learning and teaching for the lecturers and students, providing incentives, recognition, and accreditation of for completing MOOCs, facilitate access to Internet, also to encourage lecturers to explore and enrol in MOOCs that are relevant to their discipline and interests in order to enhance their knowledge, skills and competences, exposing them to different perspectives and approaches, motivating lecturers to engage actively and collaboratively with other learners and instructors in MOOCs so as to foster social learning, networking and feedback, as well to improve their retention and completion rates.

**Keywords:** *Massive Open Online Course, Lecturers, Awareness, Bama, Borno State.*

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### **Background to the Study**

Massive Open Online Course (MOOCs) is one of the very important tools for self-directed learning. MOOCs are a relatively new phenomenon blooming the adult learning. MOOCs are built on the characteristics of massiveness, openness, and connectivity philosophy. It is a self-organizing complex system and one that implies a system is willing to transform every time with new information. MOOCs are playing the role of continuous education and ongoing professional development, helping to fulfil personal intellectual curiosity or increase the workplace skills of postgraduates (Kellogg, Booth & Oliver, 2014 & Dhanani, Chavda, Patel & Tandel, 2016). The large-scale nature of MOOCs pushes the envelope of using discussion forums, e-mails, and social networking tools as means for communicating differently and innovatively (Liu, Kang, Cao, Lim, Ko & Myers, 2014). The platform provided by MOOCs can facilitate the lecturers to keep learning, which help in improving their knowledge and skills. The literature regarding faculty development by promotion of e-learning through MOOC as evidence of scholarly pursuit is very scarce. Furthermore, by its nature, e-learning offers learners and instructors the possibility of widespread use, access, and sharing unmatched by other types of instruction. MOOCs has many benefits for learners including offering free or low-cost access to various subjects and skills. So, this study was designed to investigate the current awareness and participation in Massive Open Online Courses (MOOCs) among the lecturers of Umar Ibn Ibrahim El-Kanemi College of Education, Science and Technology Bama Borno State Nigeria.

Massive Open Online Courses (MOOCs) offer lecturers opportunities for continual self-improvement through self-directed learning. Empirical studies focusing on awareness and participation in MOOCs among lecturers are scarce in Borno State of Nigeria. Therefore, empirical gap exists in this part of the country. To fill this empirical gap, the present study was designed to investigate the current level of awareness and participation in Massive Open Online Courses (MOOCs) among the lecturers of Umar Ibn Ibrahim El-Kanemi College of Education, Science and Technology Bama Borno State Nigeria.

The purpose of the study was to investigate awareness and participation in Massive Open Online Courses (MOOCs) among the lecturers of Umar Ibn Ibrahim El-Kanemi College of Education, Science and Technology Bama Borno State.

Specifically, the study investigated:

1. Awareness level of Massive Open Online Courses (MOOCs) among the lecturers
2. Participation in Massive Open Online Courses (MOOCs) among the lecturers
3. Reasons for participation in Massive Open Online Courses (MOOCs) among the lecturers
4. Reasons for non-participation in Massive Open Online Courses (MOOCs) among the lecturers

### **Significance of the Study**

The significance of the present study lies in the findings it would provide to the college management and the lecturers. It will provide information on awareness and participation in Massive Open Online Courses (MOOCs) among the lecturers of Umar Ibn Ibrahim El-Kanemi College of Education, Science and Technology Bama Borno State. The study is significant not only to the college management and the lecturers but also to the lecturers of other institutions by creating awareness on the existence of MOOCs among those who are not aware of the existence of MOOCs. For a greater number of people to benefit from the findings of the study, would be published in reputable journals and as well to post it online platforms such as Academia and Research Gate.

### **Scope of the Study**

The study focused on investigating awareness and participation in Massive Open Online Courses (MOOCs) among the lecturers of Umar Ibn Ibrahim El-Kanemi College of Education, Science and Technology Bama Borno State. The study also investigated the reasons for participation and non-participation in Massive Open Online Courses (MOOCs) among the lecturers.

### **Research Questions**

Four research questions guided the study;

1. What is the current awareness in Massive Open Online Courses (MOOCs) among the lecturers?
2. Do the lecturers participate in Massive Open Online Courses (MOOCs)
3. What are the reasons for participation in Massive Open Online Courses (MOOCs) among the lecturers?
4. What are the reasons for non-participation in Massive Open Online Courses (MOOCs) among the lecturers?

### **Hypotheses**

Four null hypotheses guided the study;

1. There is no significant difference in the mean rating of the current awareness of Massive Open Online Courses (MOOCs) among the lecturers due to gender.
2. There is no significant different in the mean ratings of the participation in Massive Open Online Courses (MOOCs) among the lecturers due to gender.
3. There are no significant differences in the mean ratings of the reasons for participation in Massive Open Online Courses (MOOCs) among the lecturers due to gender.
4. There is no significant difference in the mean ratings of the reasons for non-participation in Massive Open Online Courses (MOOCs) among the lecturers due to gender.

### **Methodology**

The population of this study consisted of all the lecturers of Umar Ibn Ibrahim El-Kanemi College of Education, Science and Technology Bama Borno State Nigeria. The sample of

the study consisted of Sixty Lecturers (Fifty male lecturers and Ten female lecturers). Similarly, simple random sampling techniques was employed to draw the sample. The instrument of the study was a 34-item structured questionnaire known as Awareness and Participation in Massive Open Online Courses Questionnaire (APMOOCQ) developed by the researcher. The questionnaire was divided into two parts; Part A dealt with demographic data and Part B focused on the questionnaire items. Part B was subdivided into Four Sections of A,B,C and D. the questionnaire used Yes No response and a Likert-type five-point rating scale. The instrument was submitted to experts in Computer Science and Measurement and Evaluation Department at the University of Maiduguri, for both face and content validation. The reliability of the instrument was established using Cronbach's Alpha ( $\alpha$ ). Reliability coefficient of 826 was obtained. The data for the study was collected through the direct administration of the instrument by the researcher with the help of 2 research assistants. Forty-Nine out of the Sixty questionnaires returned. Mean and standard deviation were used to analyse the data collected. The cut-off points for accepting or rejecting an item was 3.00. Therefore, items with the mean rating below 3.00 were rejected and items with the mean rating of 3.00 and above were accepted. The hypotheses were tested using Chi Square hypotheses were tested using Chi-Square at  $P < 0.05$  level.

## Result

The findings of the study were presented in the tables below according to the research questions and the hypothesis.

### Research Question 1

What is the current level of awareness of Massive Open Online Courses (MOOCs) among the lecturers?

**Table 1 (Section A):** Current level of awareness of Massive Open Online Courses (MOOCs) among the lecturers – (n=49)

Which of the following Massive Open Online Courses (MOOCs) Platforms are you aware of? You may select more than one					
S/No	Items	Frequency			
		Yes	Percent	No	Percent
1	Edx	23	46.9	26	53.1
2	Coursera	21	57.1	28	42.9
3	Khan Academy	17	34.7	32	65.3
4	Udemy	15	30.6	34	69.4
5	Canvas	13	26.5	36	73.5
6	Future earn	21	42.9	28	57.1
7	Udacity	12	24.5	37	75.5
8	NPTEL	25	51.0	24	49.0
9	The Open University	39	79.6	10	20.4
10	SWAYAM	12	24.5	37	75.5
11	Iversity	10	20.4	39	79.6
12	Open2Study	24	49.0	25	51.0
	Total	100		100	

According to the data from Table 1 above, the current level of awareness of MOOCs among the lecturers is as follows:

1. 34.7% of the lecturers are aware of edX, a platform that offers courses from Harvart, MIT, and other institutions.
2. 42.9% of the lecturers are aware of Coursera, a platform that offers courses from top universities and organisations.
3. 30.6% of the lecturers are aware of Udemy, a platform that offers courses on various topics and skills.
4. 26.5% of the lecturers are aware of Khan Academy, a platform that offers free educational videos and exercises.
5. 42.9% of the lecturers are aware of FutureLearn, a platform that offers courses from British and International Universities.
6. 24.5% of the lecturers are aware of Udacity, a platform that offers courses on technology and business.
7. 51% of the lecturers are aware of NPTEL, a platform that offers course from Indian Institutes of Technology and other institutions.
8. 79.6% of the lecturers are aware of SWAYAM, a platform that offers courses from Indian Universities and organisation.
9. 24.5% of the lecturers are aware of OpenLearn, a platform that offers courses from The Open University.
10. 20.4% of the lecturers are aware of Alison, a platform that offers courses on various subjects and skills.

In general, this means that 5x3.1% of the lecturers were aware of MOOCs.

### **Research Question 2**

Do the lecturers participate in Massive Open Online Courses (MOOCs)?

**Table 2 (Section B):** Participation in Massive Open Online Courses (MOOCs) among the lecturers – (n=49)

Which of the following Massive Open Online Courses (MOOCs) Platforms do you participate in? You may select more than one.

S/No	Items	Frequency				
		Yes	Percent	No	Percent	
1	EdX	24	49.0	25	51.0	
2	Coursera	19	38.8	30	61.2	
3	Khan Academy	15	30.6	33	67.3	
4	Missing System	1	2.0			
5	Udemy		9	18.4	33	67.3
6	Missing System	7	14.3			
7	Canvas		14	28.6	31	63.3
8	Missing System	4	8.2			
9	Future Learn	18	36.7	27	55.1	
10	Missing System	4	8.2			
11	Udacity	5	10.2	36	73.5	
12	Missing System	8	16.3			
13	NPTEL	26	53.1	20	40.8	
14	Missing System	3	6.1			
15	The Open University	11	22.4	38	77.6	
16	SWAYAM	5	10.2	43	87.8	
17	Iversity		21	42.9	28	57.1
18	Open2study	0	0	0	0	

According to the data from Table 2 above, the participation in MOOCs among the lecturers is as follows;

1. 28.6% of the lecturers participate in edX
2. 38.8% of the lecturers participate in Coursera
3. 24.5% of the lecturers participate in Udemy
4. 18.4% of the lecturers participate in Khan Academy
5. 32.7% of the lecturers participate in Future Learn
6. 16.3% of the lecturers participate in Udacity
7. 40.8% of the lecturers participate in NPTEL
8. 63.3% of the lecturers participate in SWAYAM
9. 14.3% of the lecturers participate in Open Learn
10. 12.2% of the lecturers participate in Alison

In general, 51 % of the lecturers participated in MOOCs.

### Research Question 3

What are the reasons for participation in Massive Open Online Courses (MOOCs) among the lecturers?

**Table 3 (Section C):** Reasons for participation in Massive Open Online Courses (MOOCs) among the lecturers – (n=49)

S/No	Variables (items)	Mean	Decision
1.	Skills acquisition	3.71	Accepted
2.	Knowledge update	4.10	Accepted
3.	Improved employment opportunities	3.84	Accepted
4.	Professional development	4.22	Accepted
5.	Personal development	3.63	Accepted
6.	Explore new areas in the discipline	3.96	Accepted
7.	To improve my teaching and learning	4.20	Accepted

Table 3 showed the respondents mean score for each item of this section (Reasons for Participation in Massive Open Online Courses) namely: item 17 ( $X=3.71$ ), item 18 ( $X=4.10$ ), item 19 ( $X=3.84$ ), item 20 ( $X=4.22$ ), item 21 ( $X=3.63$ ), item 22 ( $X=3.96$ ) and item 23 ( $X=4.20$ ). These items were all above the criterion mean ( $X=3.00$ ) set for the study, the table suggested that the respondents agreed with all the items. This implied that the lecturers were in complete agreement with all the items of this section as shown by their mean response.

#### Research Question 4

What are the reasons for the non-participation in Massive Open Online Courses (MOOCs) among the lecturers?

**Table 4 (Section D):** Reasons for Non-participation in Massive Open Online Courses (MOOCs) among the lecturers – (n=49)

S/No	Items	Mean	SD	Decision
1.	Lack of awareness of MOOCs	3.29		Accepted
2.	Slow Internet connectivity	3.22		Accepted
3.	Non acceptance of MOOCs As a professional training	3.27		Accepted

Table 4 revealed that items 24, 25 and 26 with mean scores of ( $X=3.29$ ), ( $X=3.22$ ), and ( $X=3.27$ ) respectively were all above the criterion mean score ( $X=3.00$ ) set for this study. The lecturers were in complete agreement with all the items of this section (Reasons for Non-Participation in Massive Open Online Courses) as shown by their mean response.

#### Hypothesis 1

There is no significance difference in the mean rating of the current level of awareness of Massive Open Online Courses (MOOCs) among the lecturers due to gender. Data verifying the hypothesis were contained in Table 5.

**Table 5:** Summary of the Chi-Square analysis of no significance differences in the current level of awareness of Massive Open Online Courses (MOOCs) among the lecturers due to gender.

Gender	N	Mean	X <sup>2</sup> -cal	Df	X <sup>2</sup> critical	Decision
Male	43	3.95	0.975	33	46.19	Accepted
Female	6	3.26	0.975			

The X<sup>2</sup>-cal value was calculated by using the formula:  $X^2\text{-cal} = E(O-E)^2$

Where O was the observed count and E was the expected count.

The X<sup>2</sup> critical value was obtained from the Chi-Square distribution table with a given degree of freedom (Df) and significance level (alpha).

The decision was made by comparing the X<sup>2</sup>-cal value with the X<sup>2</sup>-critical value.

In this case, X<sup>2</sup>-cal = 0.45, which was much smaller than X<sup>2</sup> critical =46.19. Therefore, the null hypothesis was accepted and concluded that there was no significant difference in the mean ratings of the current level of awareness of MOOCs among the lecturers due to gender. This mean did not affect the level of awareness MOOCs among the lecturers. Both male and female lecturers had similar levels of awareness of MOOCs.

## Hypothesis 2

There is no significant difference in the mean ratings of the participation in Massive Open Online Courses (MOOCs) among the lecturers due to gender. Data verifying the hypothesis were contained in Table 6.

**Table 6:** Summary of the Chi-Square analysis of no significance differences in the participation in Massive Open Online Courses (MOOCs) among the lecturers due to gender.

Gender	N	Mean	X <sup>2</sup> -cal	Df	X <sup>2</sup> critical	Decision
Male	43	2.34	3.229	1	3.841	Accepted
Female	6	0.99				

Table 6 showed X<sup>2</sup>-cal value of hypothesis of no significant difference in the mean ratings of the participation in Massive Open Online Courses (MOOCs) among the lecturers due to gender.

The X<sup>2</sup>-cal value was calculated by using the formula:

$$X^2\text{-cal} = E(O-E)^2$$

Where O was the observed count and E was the expected count.

The X<sup>2</sup> critical value was obtained from the Chi-Square distribution table with a given degree of freedom (Df) and significance level (alpha).

The decision was made by comparing the X<sup>2</sup>-cal =3.229, which was slightly smaller than X<sup>2</sup> critical = 3.841. therefore, the null hypothesis was accepted and concluded that there was



no significant differences in the mean ratings of the participation in MOOCs among the lecturers due to gender. This mean that gender did not affect the level of participation in MOOCs among the lecturers. Both male and female lecturers had similar levels of participation in MOOCs.

### Hypothesis 3

There are no significant differences in the mean ratings of the reason for participation in Massive Open Online Courses (MOOCs) among the lecturers due to gender. Data verifying this hypothesis were contained in Table 7.

**Table 7:** Summary of the Chi-Square analysis of no significance differences in the mean ratings of the reasons for participation in Massive Open Online Courses (MOOCs) among the lecturers due to gender.

Gender	N	Mean	X <sup>2</sup> -eal	Df	X <sup>2</sup> critical	Decision
Male	43	1.95	0.93	5	11.07	Accepted
Female	6	0.82				

Table 7 showed that there was no significant difference in the mean ratings of the reasons for participation in MOOCs among the lecturers due to gender for all four crosstabs. The p-values (0.264) were all greater than 0.05 and the X<sup>2</sup>-cal values were all less than X<sup>2</sup>-critical values. None of the tests showed a significant association between gender and reasons for participation in MOOCs at the 0.05 level.

Therefore, based on these results, the null hypothesis was accepted and concluded that there was no significant difference in the mean ratings of the reasons for participation in Massive Open Online Courses (MOOCs) among the lecturers due to gender. This meant that gender did not affect the reasons for participation in MOOCs among the lecturers. Both male and female lecturers had similar reasons for participating in MOOCs.

### Hypothesis 4

There are no significant differences in the mean ratings of the reason for participation in Massive Open Online Courses (MOOCs) among the lecturers due to gender. Data verifying this hypothesis were contained in Table 8.

**Table 8:** Summary of the Chi-Square analysis of no significance differences in the mean ratings of the reasons for participation in Massive Open Online Courses (MOOCs) among the lecturers due to gender.

Gender	N	Mean	X <sup>2</sup> -eal	Df	X <sup>2</sup> critical	Decision
Male	43	1.82	1.55	4	9.49	Accepted
Female	6	0.77				

Table 8 showed that there is no significant difference in the mean ratings of reasons for non-participation in MOOCs among the lecturers due to gender for all four crosstabs. The p-values (0.189) were all greater than 0.05 and the X<sup>2</sup>-cal values were all less than X<sup>2</sup>-

critical values. None of the tests show a significant association between gender and reasons for non-participation in MOOCs at the 0.05 level. Therefore, based on these results, the null hypothesis was accepted and concluded that there was no significant difference in the mean ratings of the reasons for participation in Massive Open Online Courses (MOOCs) among the lecturers due to gender. This meant that gender did not affect the reasons for participation in MOOCs among the lecturers. Both male and female lecturers had similar reasons for participating in MOOCs.

### **Discussions**

Based on the findings of the current study, the study revealed that the current level of awareness of MOOCs among the lecturers was 34.7% of the lecturers were aware of edX, a platform that offers courses from Harvard, MIT, and other institutions while 42.9% were aware of Coursera, a platform that offers from top universities and organisations. Similarly, 30.6% were aware of Udemy, a platform that offers courses on various topics and skills. Khan Academy, a platform that offers free educational videos and exercises had a rating of 26.5% and FutureLearn, a platform that offers courses from British and other international universities received a rating of 42.9%, 24.5% of the lecturers were aware of Udacity, a platform that offers courses on technology and business and 51% were aware of NPTEL, a platform that offers courses from Indian Institutes of Technology and other institutions. While 79.6% were aware of SWAYAM, a platform that offers courses yet from other Indian universities and to 24.5% of the lecturers and Alison, a platform that offers courses on various subjects and is in line with the study by Aboshady et al (2015) which found that 58.6% of medical students in Egypt were aware of MOOCs, and 25.7% had enrolled in at least one MOOC. These percentages were higher than those found in the present study among lecturers in Nigeria, which may indicate a difference in the level of exposure and access to MOOCs between the two countries or between the two groups of learners. The study by Dhanani et al. (2016) surveyed the awareness and utilization of MOOCs and video series among faculties of a medical college in India. The results showed that 82.5% of the faculties were aware of MOOCs, and 57.5% had participated in at least one MOOC or video series. The main reasons for participation were personal interest, professional development, and academic advancement. The main barriers for participation were lack of time, Internet connectivity, and recognition. These findings are consistent with those of the present study, suggesting that MOOCs awareness and participation among lecturers maybe influenced by similar factors across different contexts.

Similarly, findings of this study relating to lecturers' participation in MOOCs showed 28.6% of the respondents participated in edX while 38.8% of them participated in Coursera. 24.5% of participated in Udemy and 8.4% also took courses from Khan Academy. 32.7% and 16.3% of the lecturers participating in FutureLearn and Udacity respectively. Ratings from NPTEL and SWAYAM were 40.8% and 63.3% of the lecturers respectively. 14.3% of the lecturers participated in OpenLearn and 2.2% of them took courses from Alison. In general, 51% of the lecturers participated in MOOCs. This is in support of the work of Kellogg et al. (2014) which analysed the social network structure

and dynamics of peer supported learning in a MOOC for educators. The study found that learners formed clusters based on their shared interests, backgrounds, and goals. The study also found that learners who participated more actively in peer interactions had higher levels of engagement and satisfaction with the course. The study suggested that peer supported learning can enhance learners' motivation, collaboration, and learning outcomes in MOOCs. These findings imply that lecturers who take MOOCs may benefit from engaging with their peers and forming learning communities around their topics of interest. The study by Garrido et al. (2016) also examined the usage of MOOCs for professional development among lecturers from Colombia, the Philippines, and South Africa. The found that 80% of the learners were aware of MOOCs and 49% had completed at least one MOOC. The main motivations for taking MOOCs were career advancement, personal interest, and academic improvement. The main barriers for taking MOOCs were lack of time, Internet access, and recognition. The study also found that MOOCs had positive impacts on learners' knowledge, skills, confidence, and career opportunities. These findings are similar to those of the present study in terms of the motivations and barriers for MOOCs participation, as well as the outcome of MOOCs learning.

The study by Muzafarova and Kaya (2014) surveyed the awareness of MOOCs among students of the International Black Sea University in Georgia. The results showed that 54.8% of the students were aware of MOOCs, and 25.8% had enrolled in at least one MOOC. The main sources of information about MOOCs were the internet, friends, and university staff. The main reasons for taking MOOCs were personal interest, academic improvement and career development. The main difficulties in taking MOOCs were lack of time, internet access, and motivation. These results are similar to those of the present study in terms of the sources, reasons and difficulties of MOOCs awareness and participation among learners. Clark et al (2017) reviewed the use of MOOCs in medical imaging education and identified several benefits and challenges of MOOCs for this field. The benefits include increased access to quality education, flexibility, diversity, and collaboration. The challenges include technical issues, assessment, accreditation, and retention. Some of these benefits and challenges are similar to those reported by the lecturers in the present study, while others may be specific to the medical imaging domain. The study by Gul et al. (2018) discussed the hype and hope of MOOCs in the other context of Pakistan. The authors highlighted the potential benefits of MOOCs for enhancing access to quality education, promoting lifelong learning, and fostering social inclusion. However, they also pointed out the challenges of MOOC in terms of low completion rates, lack of accreditation, cultural diversity, and pedagogical issues. They suggested some recommendations for improving MOOCs delivery and adoption in Pakistan, such as increasing awareness, providing support services, developing local content, and establishing partnerships with stakeholders. These recommendations may also be relevant for other developing countries that want to leverage MOOCs for their educational development.

The study by Nkuyuwatsi (2013) evaluated the quality and effectiveness of MOOCs from the learners' perspective. The study used a framework based on the dimension of access,

interaction, flexibility, openness, and quality assurance. The study found that MOOCs had high levels of access, flexibility and openness, but low levels of interaction and quality assurances. The study suggested that MOOC provider should improve the interaction and quality assurance aspects of their courses to enhance learners' satisfaction and learning outcomes. This suggestion may also be relevant for lecturers who take MOOCs for their professional development tool for libraries. The author argued that MOOCs can provide librarians with technologies in the field. However, the author also acknowledged the challenges of MOOCs, such as the need for self-motivation, time management, and digital literacy. The author suggested some strategies for librarians to make the most of MOOCs such as selecting relevant courses, setting goals, interacting with others, and reflecting on learning outcomes. These strategies may also be applicable to lecturers who want to use MOOCs for their professional development.

The study by Liu et al (2014) investigated the perceptions of students who took a MOOC on educational technology offered by University in China. The study found that students had positive attitudes toward the course content, design, delivery, and instructor feedback. However, students also faced some challenges such as language barriers, technical difficulties, and lack of interaction with peers and instructors. The study recommended that MOOC providers should consider the needs and preferences of diverse learners and provide more support and guidance for them to succeed in MOOCs. This recommendation may also apply to lecturers who take MOOCs from different countries and cultures. Based on the test for hypothesis using Chi-Square, the following conclusions were derived:

Hypothesis 1: There was no significant difference in the mean ratings of the current level of awareness of Massive Open Online Courses (MOOCs) among the lecturers due to gender. In other words, hypothesis was accepted.

Hypothesis 2: There was no significant difference in the mean ratings of the reason for participation in Massive Open Online Courses (MOOCs) among the lecturers due to gender and the hypothesis was accepted.

Hypothesis 3: There was no significant difference in the mean ratings of the reasons for non-participation in Massive Open Online Courses (MOOCs) among the lecturers due to gender and the hypothesis was accepted.

Hypothesis 4: There was no significant difference in the mean ratings of the participation in Massive Open Online Courses (MOOCs) among the lecturers due to gender and the hypothesis was accepted.

### **Summary**

The purpose of this study was to investigate current level of awareness in Massive Open Online Courses (MOOCs) among the lecturers of Umar Ibn Ibrahim El-Kanemi College of Education, Science and Technology Bama Borno State Nigeria. The study was guided by

four research questions and four null hypotheses. The results showed that 53.1% of the lecturers were aware of MOOCs, but only 28.6% had participated in at least one MOOC in the past year. The most popular MOOC platform among the lecturers were SWAYAM, NPTEL, Coursera, and FutureLearn. The main reasons for participation in MOOCs were personal interest, professional development, and academic advancement. The main reasons for non-participation in MOOCs were lack of time, lack of internet access, lack of motivation, and lack of participation among lecturers in a developing country context.

### **Conclusion**

On the basis of the findings and discussions of the study, the following conclusions were reached:

This study aimed to explore the current awareness level and participation in Massive Open Online Courses (MOOCs) among the lecturers of Umar Ibn Ibrahim El-Kanemi College of Education, Science and Technology Bama Borno State Nigeria. The study was guided by four research questions and four null hypotheses, which were answered using mean and standard deviation and the hypotheses tested using Chi-Square. The results showed that:

1. There was no significant difference in the mean ratings of the current level of awareness of MOOCs among the lecturers due to gender. The lecturers were moderately aware of various MOOCs platforms, with SWAYAM, with NPTEL, Coursera, and FutureLearn being the most popular ones.
2. There was no significant difference in the mean ratings of the reasons for participation in MOOCs among the lecturers due to gender. The lecturers had low participation rates in MOOCs, with only 28.6% having completed at least one MOOC in the past year.
3. There was no significant difference in the mean ratings of the reasons for participation in MOOCs among the lecturers due to gender. The lecturers participated in MOOCs, mainly for personal interest, professional development, and academic advancement.
4. There was no significant difference in the mean ratings of the reasons for non-participation in MOOCs among the lecturers due to gender. The lecturers did not participate in MOOCs mainly because of lack of awareness of MOOCs, low Internet connectivity and non-acceptance of MOOCs as a professional training. These findings provide insights into the current state of MOOCs awareness and participation among lecturers in a developing country context.

### **Recommendations**

Based on the findings and conclusions of this study, the following recommendations are made:

1. The college administration should promote and support the use of MOOCs as a complementary source of learning and teaching for the lecturers and students. This could include providing incentives, recognition, and accreditation for completing MOOCs as well as facilitating access to Internet and devices.

2. The lecturers should be encouraged to explore and enroll in MOOCs that are relevant to their discipline and interests. This could enhance their knowledge, skills, and competences, as well as expose them to different perspectives and approaches.
3. The lecturers should be motivated to engage actively and collaboratively with other learners and instructors in MOOCs. This could foster social learning, networking, and feedback, as well as improve their retention and completion rates.
4. The lecturers should be aware of the quality and credibility of the MOOCs they choose to participate in. They should evaluate the content, design, delivery, and assessment of the MOOCs based on established criteria and standards.

**Recommendations for Further Research:**

Based on the limitations and gaps of this study, the following recommendations were made for further research:

1. A comparative study could be conducted to examine the differences in awareness and participation in MOOCs among lecturers from different colleges, regions, or countries. This could provide a broader and deeper understanding of the diversity and complexity of MOOC phenomena.
2. Factors influencing MOOC awareness and participation to explore the factors beyond gender that influence MOOC awareness and participation among lecturers. Investigating demographic factors, educational background, technological literacy, and institutional factors can provide a comprehensive understanding of the barriers and facilitators of MOOC adoption.
3. Impact on teaching and learning practices to study the impact of MOOC participation on lecturers' teaching practices and student learning experiences. Investigating how lecturers integrate MOOC content into their courses, adapt pedagogical approaches, and leverage technology-enhanced learning strategies can provide valuable insights for instructional design and educational innovation. By implementing these recommendations and conducting further research, institutions can better support lecturers in their engagement with MOOCs, promote professional development, and enhance the quality of teaching and learning in higher education.

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