

Pre-Service Teachers' Awareness and Attitude Towards the Use of Open Educational Resources for Learning in Kano State, Nigeria

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ABSTRACT

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This study focused on the pre-service teachers' awareness and attitude towards using Open Educational Resources for learning in Kano State, Nigeria. The research adopted a descriptive research design. A total of 315 pre-service teachers from two colleges of education out of four colleges in the state were purposively selected and these colleges of education are Federal College of Education, Kano and Sa'adatu Rimi College of Education, Kumbotso. The reliability results were 0.77 for Awareness and 0.79 for Attitude. Mean and simple percentages were used to analyze the research questions, while the hypotheses were tested using a t-test at a 0.05 significant level. The findings revealed among others, those pre-service teachers had a good awareness of the existence of OER, and their attitude towards the use of OER for learning was positive. Also, there was no significant difference between the male and female pre-service teachers in their awareness and attitude towards using OER for learning in the sampled colleges of education-based gender. The study concluded, among others, that the awareness and positive attitude of pre-service teachers could affect the use of OER. The study recommended, among others, that federal and State governments and colleges' management should encourage pre-service teachers to adopt OER more in their learning and other academic activities.

Keywords: Pre-Service Teachers, Awareness, Attitude, Open Educational Resources

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INTRODUCTION

In the 21st century, education has continued to evolve; it is now being shaped by modern advances in information and communication technology (Thongphan, 2020). Since 2019, the pandemic has disrupted education and forced teachers to rely on technology in new ways. Teachers have faced an unstable year and are forced to consider how technology could be used to keep learners safe and engaged in education during the COVID-19 pandemic. Moreover, they have students of all ages studying, submitting assignments, and interacting with teachers and classmates online. Several online platforms can be made part of the curriculum, used as a means to deliver instructions, incorporated to help instructions, and used to make the overall learning process and improved experience (Raja & Nagasubramani, 2018).

Classrooms with technology are not only more effective but also enjoyable (Al-Mekhlafi, 2020). Classrooms with technology make students more motivated to learn about the subjects. In language classrooms, classrooms that use technology have been shown to produce positive results (Kitchakarn, 2015). Technology-enhanced classrooms not only

benefit students but also teachers (Wu, Hsieh, & Yang, 2017). The advent of Open Educational Resources into the educational industry has simplified university education at low cost, there has been a drawback in its accessibility due to the low level of awareness by the end-users. Wider acceptance of OERs requires the development of awareness and reaching an understanding of all their dimensions, increase of recognisability of the OER repositories and development of online collaborative communities (Kilickaya & Kic-Drgas, 2021).

Open Educational Resources (OER) comprise textbooks, course materials, manuals, videos, assessments, software, and any other resources, materials, or techniques employed to enhance easy access to information, audio-video, tutorials, sound and music lesson plans, quizzes, instructional guides, models contents, software tools, licenses as well as best practice. The open conceptually implies the material's zero cost and non-restricted nature (Gambo & Sani, 2017). OER may be viewed as the online availability of learning resources to students, self-learners, and educators. They might also be defined as unrestricted access to learning resources at no cost,

including the ability to evaluate and contrast educational programs and course contents (Sandanayake, 2019).

Open Educational Resources are open educational resources that are freely available online for anybody to use, whether they are instructors, students, or self-learners. Full courses, course modules, syllabi, lectures, homework, assignments, quizzes, lab and classroom activities, pedagogical resources, games, simulations, and others are examples of OER (Darren, 2017). OER is a wider movement towards broadening access to and participation in education (Mengual-Andrés & Rico, 2018). Zaid and Alabi (2020) opined that OER has become an essential and effective method of providing access to and enhancing learners' learning experiences.

Awareness and attitude are very pertinent as they always determine the proficient use of OER among pre-service teachers. It is clear that without the idea of the existence of OER, many undergraduates in universities and other higher institutions of learning might not be able to trace these resources and even benefit from them. The different levels of awareness of and engagement with OER by learners in the same cohort point to the fact that although the core curriculum played an important role in learner engagement with OER, a learner's initiative played a pivotal role in extending and deepening that engagement (Siminyu, 2017).

Purpose of the Study

The main purpose of this study was to investigate the awareness and attitude of pre-service teachers towards the use of OER for learning in Kano State.

Specifically, the study:

1. Examined pre-service teachers' awareness towards the use of OER for learning in Kano State
2. Determined pre-service teachers' attitudes towards using OER for learning in Kano State.

Research Questions

The following research questions were answered in this study:

1. What is the pre-service teachers' awareness level towards using OER for learning in Kano State?
2. What is the pre-service teachers' attitude towards the use of OER for learning in Kano State?

Research Hypotheses

The following hypotheses were tested at a 0.05 level of significance:

Ho₁: There is no significant difference in the pre-service teachers' awareness level towards the use of OER for learning in Kano State based on gender.

Ho₂: There is no significant difference in the pre-service teachers' attitudes towards the use of OER for learning in Kano State based on gender.

METHOD

The population for this research was comprised of all pre-service teachers in the colleges of education in Kano State.

Two colleges of education out of four colleges in the state were purposively selected, and these colleges of education are the Federal College of Education, Kano and Sa'adatu Rimi College of Education, Kumbotso as they are conventional colleges of education. The sample was randomly selected from the two institutions. The researchers sampled -315 pre-service teachers from the two colleges of education. A stratified sampling technique was employed to classify the pre-service teachers based on gender and institutional ownership. The instrument for this study was a researchers-designed questionnaire. The research questions were answered using mean and standard deviation, while a hypothesis was tested at 0.05 level of significance using t-test. Cronbach's Alpha statistical instrument was used to determine the reliability coefficient of the instrument by sections. The reliability results were 0.77 on Awareness and 0.79 Attitude, on the Awareness and Attitude of Pre-Service Teachers Towards the Use of OER for Learning. The information obtained was on the Awareness and Attitude of Pre-Service Teachers Towards the Use of OER for learning.

RESULTS AND DISCUSSION

Table 1. Demographic Information of the Respondents

Gender	Frequency	Percentage
Male	110	34.92
Female	205	65.08
Total	315	100

Table 1 shows the demographic distribution of the respondents. The male preservice teachers are 110(34.92%), while the female pre-service teachers are 205(65.08%). This shows that there were more female pre-service teachers compared to their counterparts.

Research Question One: What is the pre-service teachers' level of awareness towards the use of OER for learning in Kano State?

Table 2. Mean responses of pre-service teachers' level of

S/No	Items	Mean
1	I don't have any idea about OER in my academic life	3.18
2	Do you know that OER uses Creative Commons licenses	3.41
3	Do you know that OER is very simple to find	3.36
4	Do you know that OER is not easy to find	3.34
5	Do you know that OER are not resources that can be trusted	3.36
6	Do you know that OER is not available for all areas of study	3.75
7	Do you know that OER is not free of charge	3.28
8	Do you know that OER can only be used the way they are	3.41
9	Do you know that OER is not helping matters to the students in doing their assignments	3.23
10	Do you know that OER are just journal articles	3.41
	Grand Mean score	3.37

awareness towards the use of OER for learning

From Table 2, it was revealed that all the listed question items have mean scores higher than the benchmark mean score of 2.5. Also, the grand mean score of 3.37 is higher than the benchmark mean of 2.5. Therefore, it can be inferred that pre-service teachers are very aware of OER for learning.

Research Question Two: What is the pre-service teachers' attitude towards using OER for learning in Kano State?

Table 3. Pre-service teachers' attitude towards the use of OER for learning

S/No	Items	Mean
1	OER are difficult to use for learning	2.94
2	OER makes learning enjoyable and interesting	3.03
3	I have an interest in OER because I learned many things through the use of it	3.11
4	Using OER for learning consumes a lot of my time	3.00
5	I am always hesitating to use OER for learning	2.86
6	OER makes learning more distracting to me	3.03
7	OER improves technological skills for learning.	2.99
8	OER challenges me to improve my learning.	2.98
9	Using OER makes me feel more connected to my colleagues and the world of knowledge	2.95
10	OER makes learning cheaper and more affordable	3.11
Amount		3.00

Table 3 reveals pre-service teachers' attitudes towards the use of OER for learning. The table above shows that the grand mean is higher than the benchmark of 2.5. This indicates that pre-service teachers have a positive attitude towards using OER for learning.

Hypotheses

Ho₁: There is no significant difference in the pre-service teachers' awareness of using OER for learning in Kano State based on gender.

Table 4. t-test analysis of pre-service teachers' awareness towards the use of OER for learning in Kano State based on gender

Group	N	df	X	SD	t-value	p-value
Male	110		29.92	6.637		
		315			0.529	0.907
Female	205		29.81	6.634		

Table 4 shows the t-test analyses of the mean response of male and female pre-service teachers' awareness towards using OER. The result indicated that there was no statistically significant difference between the two groups, $t = 0.529$, $df = 313$, $p = 0.907$ ($p > 0.05$)

Ho₂: There is no significant difference in the pre-service teachers' attitudes towards using OER for learning in Kano State based on gender.

Table 5. t-test analysis of pre-service teachers' attitudes toward the use of OER for learning in Kano State based on gender

Group	N	df	X	SD	t-value	p-value
Male	110		33.02	2.772		
		315			0.531	0.042
Female	205		33.67	3.015		

Table 5 shows the t-test analyses of the mean response of male and female pre-service teachers' attitudes toward using OER. The result indicated no statistically significant difference between the two groups, $t = 0.531$, $df = 313$, $p = 0.042$ ($p > 0.05$).

Discussion

The study's findings were discussed based on the two research questions raised and two research hypotheses formulated in the study. Research question one attempted to find out pre-service teachers' level of awareness towards the use of OER for learning in Kano State. The result revealed that the pre-service teachers are very aware of the existence of OER for learning. The finding is in line with that of Shams et al. (2020), Wiche and Ogunbodede (2021), Mbazu et al. (2023), who found that pre-service teachers are very aware of the existence of OER for learning and of this study is contrary to the finding of Alimi et al. (2020) who discovered that pre-service teachers are not aware of OER.

Research question two also attempted to find out pre-service teachers' attitudes towards the use of OER for learning in Kano State as investigated in the study revealed that pre-service teachers have a positive attitude towards the use of OER for learning. The study was in alignment with the findings of Falode et al. (2018), Mc Carthy (2017), Cox and Trotter (2017), and Jung and Lee (2020), whose findings revealed that pre-service teachers had a positive attitude toward the use of OER for learning. The findings of this study disagreed with the findings of Bao (2020), Unger, and Meiran (2020), whose findings revealed that pre-service teachers have a negative attitude toward using OER for learning.

Findings of the research hypothesis on the pre-service teachers' awareness level towards using OER for learning in Kano State based on gender. Revealed that there was no significant difference in male and female pre-service teachers' awareness levels towards using OER for learning. The study's findings were similar to those of Issa et al (2020), who revealed that gender does not affect the level of OER awareness for learning among pre-service teachers. Similarly, findings of research hypothesis two also attempted to determine whether there is no significant difference in the pre-service teachers' attitude towards using OER for learning in Kano State based on gender. From the result, it was deduced that there was no significant difference in the pre-service teachers' attitudes towards the use of OER for learning in Kano State based on gender. The findings of this study agree with Ahmad (2015) and Orwenjo and Erastus (2018) that gender has no significant influence on the pre-service teachers' attitude towards using

OER for learning. Therefore, the null hypothesis raised was accepted.

Pre-service teachers will be more efficient if they include OER in their learning. Pre-service teachers and other stakeholders with modest digital skills in tCT can use OER for education and other academic activities. Consequently, proper orientation and awareness campaigns should be launched for pre-service teachers, curriculum developers, and other stakeholders, similarly, all relevant resources should be made accessible to them so that they can integrate OER effectively.

CONCLUSION

Based on the findings as revealed by the data analyzed, it was concluded that the pre-service teachers had an excellent awareness of the existence of OER, and their attitude towards the use of OER for learning was positive. It also revealed that there was no significant difference. In male and female pre-service teachers' awareness level towards the use of OER for learning and their attitudes towards the use of OER as well. Therefore, Hypothesis one and two were accepted because there was no significant difference in male and female pre-service teachers' awareness level and their attitude towards the use of OER for learning.

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