

Self-Rating of Office Technology and Management Lecturers' Proficiency for Effective Teaching of Webpage Design in North-West Nigeria Polytechnics

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Abstract

This study was embarked in order to ascertain how proficient are Office Technology and Management Lecturers in teaching webpage design applications in the North-west Nigerian Polytechnics. one research question and two null hypotheses guided the study. The study adopted descriptive survey research design. The population and the sample size were 127 lecturers of OTM in the North-west Nigerian Polytechnics. The instrument for data collection was 5 points structured questionnaire with 17 items designed according to the research questions. The instrument was subjected to the validity test by expert. The reliability of the instrument was established outside the study area. The researcher and three assistants administered the questionnaire to the population while the retrieved data were analyzed with mean and standard deviation. T-test was used to test the null hypotheses at 0.05 level of significance. The finding revealed that OTM lecturers in polytechnics in North-West Nigeria were fairly proficient in teaching webpage design application. Furthermore, the study also found a significant difference in the mean ratings of respondents' proficiency for effective teaching of webpage design as a result of gender and the institution ownership (State and Federal). This study concluded that OTM lecturers in North-West Nigeria Polytechnics do not possess the requisite webpage design proficiency to effectively teach their students. Based on the findings, it is recommended among others that OTM lecturers should go for self-sponsored training programme in order to improve their proficiency level in webpage design application.

Keywords: Self-rating, Proficiency, Webpage design, OTM lecturers

I. Introduction

Polytechnic education is one of the tertiary levels of education given after secondary school.

Aliyu (2019) posits that, it is one of the two tier programme of studies that consist of national diploma and higher national diploma with one-year industrial experience as one of the pre-requisites for entry into the HND programme. The ownership of polytechnics ranges from federal, state and private individuals.

Objectives of polytechnic education, as stated in the National policy on education (2004) is to provide the technical knowledge and skills necessary for occupational development in Nigeria as well as to give training and impart necessary skills for the production of skilled personnel who shall be enterprising. It is worth noting that office technology and management programme is one of the courses offered in the Nigerian polytechnics. Garba (2020) remarked that, OTM programme is one of the courses offered in Nigerian polytechnics. In the same way, Paul-Mgbeafulike (2022) views OTM as the component of vocational education that provide knowledge and skills needed to perform proficiently in the world of work.

Teaching of OTM courses involves the process of imparting the necessary knowledge, understanding and skills to the learners in the class room situation. According to Ndah and Atah (2022) the ability of the OTM lecturer to deliver as expected depends on how the trainer motivates the learner thorough different tactics to develop interest in learning. This is to say that OTM lecturer should possess motivational capabilities, requisite skills and competencies in both ICT and management for effective teaching in the class.

From the view of Aliyu (2013) OTM lecturer is a skilled person with diverse methods and strategies of delivering course contents to students for understanding and comprehension. Ibrahim (2017) argues that the teaching and learning of OTM courses had long shifted from the teacher centered to the learners centered approach where the teacher will engage the learners by supporting them to accomplish a task. This might be in line of thought

that prompted the NBTE to emphasis 75 percent practical and 25 percent theory on the program.

Proficiency is the ability of an individual to execute a task in accordance to the standard. Proficiency in office management perspective is attained as result of constant drill and practice. Knox (1980) defined proficiency as the capacity of an individual to perform a task in a satisfactory manner, if the individual is given the opportunity. For OTM lecturers to deliver as expected, computer application proficiency should be at their finger tips. Ezenwafor and Garba (2020) see computer application proficiency as the capacity to perform responsibility in accordance with the prescribed criteria. Therefore, possession of requisite skills, knowledge and procedures could make the lecturers proficiently capable to provide adequate training to the students of OTM. Computer application proficiency includes webpage design among others.

Webpage design is an application software that allow the users to create or and design homepage for portal, advertisement and other related sites. The rapid growth of technology has led to an increased demand for professionals with expertise in webpage design. Teaching webpage design requires a specific set of proficiencies and skills as stated in the OTM curriculum which is designed to inculcate the requisite knowledge, values and competencies to the recipient for positive change in behaviour. As posited by Tony-Okeme (2023), webpage design is the computer application that allow user to create, modify and display the element of a webpage. Webpage design encompasses many different skills and disciplines in the production and maintenance of websites.

Okoye (2021) disclosed that web design encompasses many different skills and disciplines in the production and maintenance of websites. The author added that web design is normally used to describe the design process relating to the front-end (client side) design of a website, including writing mark up. Kim and Lee (2018) reported that OTM instructors should possess technical skills in webpage design for effective class delivery. In the same way, Adukoya and Adeyeye (2020), opined that teachers must possess ICT-related proficiency for adequate teaching of webpage design in schools.

The webpage design applications include, One note, Dream weaver, word press. Mastery of these common software are essential for effective teaching of webpage. More to that, the proficiency of OTM lecturers in teaching webpage design is closely tied to their technical expertise in tools and technologies such as HTML, CSS, JavaScript, and content management systems (CMS) like WordPress (Tony-Okeme, 2020). In addition,

Kim and Lee (2018) postulated that, modern organizations are now relying on functional websites to communicate and engage with audiences. As a result of this role, lecturers of Office Technology and Management (OTM) are gaining significant role in teaching webpage design. As reported by Oyediran and Adebayo (2020), requirements for building website include; requisite skills, computer, camera, internet connectivity and text editor. However, lecturers' proficiency in the use of the aforementioned stuffs could enable students to gain the essential exposure to comprehend and learn web development in schools. OTM tutors should own a solid foundation in the use of multiple webpage design software, lesson planning, communication, problem-solving, and time management for effective class delivery.

The content scope for the study is webpage design proficiency as it influence teaching effectiveness. The respondents' variables are OTM lecturers in North-West Nigeria Polytechnics. Since the respondents will rate themselves. It is likely that gender could have influence on their ratings. On the contrary, it is possible that State Polytechnics lectures could assess their proficiency better than the Federal Polytechnics lectures. Therefore, it is on the basis of the above varying factors, that the researcher deems it vital to ascertain the OTM lecturers' self-rating of their proficiency level for effective teaching of webpage design.

Statement of the problem.

Office Technology and Management curriculum is design to comply with the nomenclature of Information and Communication Technology. According to the National Board for Technical Education (NBTE, 2004) curriculum contents, the OTM product should fit into the world with computer competences and skills to effectively work after graduation.

However, from the observations of employers, the product of polytechnics who serve as secretaries do not adequately possess the relevant webpage design exposure for effective work performance. This made the employers to suspect the OTM lectures exposure on computer applications and specifically webpage design for effective teaching. folabi&Oduwaiye (2019) postulated that teaching webpage design in OTM programs requires a specific set of proficiencies, in hard and soft skills. Additionally, Kim and Lee (2018) emphasised that, modern organizations are now relying on functional websites to communicate and engage with audiences.

It seems there is a gap between the employers' expectations and the lecturers' proficiency in teaching webpage design to proficiently equip students for modern office work. The resultant effect to this, is that the curriculum objectives could not be realized which could translate to graduating incompetent secretaries. It is against this background that the researcher embarks on the study on self-rating of office technology and management lecturers' proficiency for effective teaching of webpage design application in North-west Nigerian Polytechnics.

Research question

The following research question guided the study.
How OTM lecturers in the North-West Nigerian polytechnics rate their proficiency on webpage design application?

Null hypotheses

The following hypotheses were tested at 0.05 level of significance.

1. OTM lecturers in North-West Nigerian polytechnics do not differ significantly in their mean self-rating of their proficiency in webpage design as a result of their gender.
2. OTM lecturers in state and federal in North-West Nigerian polytechnics do not differ significantly in their mean self-rating of their proficiency in webpage design.

II. Method

The study adopted a descriptive survey research design. The area was North-west Nigeria that comprised of seven states. The population of the study was 136 lecturers sourced from Heads of

Departments of OTM in all the polytechnics offering OTM programmes. The entire population constituted the sample. Instrument for data collection was a structured questionnaire titled "OTM lecturer' Proficiency on webpage design applications questionnaire" (OLPOWDAQ). It has section A and B. Section A contains two items on the demographic data of the respondents while Section B contain 17 items respectively with a 5-point Likert type rating scale of very proficient (VP) with 5 points; Proficient (P) with 4 points; fairly proficient (FP) with 3 points; barely proficient (BP) with 2 points and not proficient (NP) with 1 point. The instrument was validated by three experts as follows; two lecturers in the field of office technology and management and one expert in the field of measurement and evaluation from FCE Kano. Split half method was used to ascertain the reliability of the instrument with Pearson Product Moment Correlation and reliability Co-efficient yielded a value of 0.81. the researcher personally administered the instrument with the help of assistants who work in the polytechnics. Out of 136 copies of the instrument distributed, 127 (representing 93%) were retrieved and analysed. Data collected were analysed with mean and standard deviation to answer the research question and determine the homogeneity of the respondents' mean rating. Decision on the research question was based on the grand mean score relative to the real limit of numbers on the five-point scale. The inferential statistic of t-test was used to test the null hypotheses at 0.05 level of significance. A null hypothesis was not rejected when the t-calculated is less than the t-critical and rejected when the t-calculated is greater than the t- critical.

III. Results

Table 1: Respondents' mean rating of their proficiency on webpage design activities

N =127

S/N	Items	$\bar{X}$	SD	Remarks
1.	Show students how to select and open the webpage design software	3.40	1.27	Fairly proficient
2.	Demonstrate the basic mechanism of web page formatting (HTML tags)	2.46	1.22	Barely proficient
3.	Teach how to insert image into a web page	3.59	1.22	Proficient
4.	Show how to manipulate texts (bold, italic) and to set font size for specific text	2.70	1.27	Fairly proficient
5.	Show students how to set background colour and image	3.57	1.30	Proficient
6.	Illustrate how to correct and format basic hypertext links. https:	3.84	1.20	Proficient
7.	Show how to test the hyperlink.	3.66	1.28	Proficient
8.	Teach the need to refresh or reload web pages after editing	3.47	1.29	Fairl proficient
9.	Coach students on the main management	3.45	1.07	Faily proficient

	techniques of file menu.			
10.	Demonstrate the basic structure of an HTML page	3.46	1.15	Faily proficient
11.	Show students how to print from the print settings.	3.30	1.03	Faily proficient
12.	Demonstrate how to insert image into a webpage	3.21	1.11	Faily proficient
13.	Display how to set background color	3.15	1.01	Faily proficient
14.	Show how to use web browser	3.22	1.12	Faily proficient
15.	Teach students how to deploy a website	2.10	1.23	Barely proficient
16.	Show work in the One note application software	2.23	1.31	Barely proficient
17.	Display how to edit web page contents	3.37	1.29	Faily proficient
	Grand mean	3.18		Faily proficient

Source: Questionnaire administered, 2025

Table 1 reveals that the OTM lecturers in North-West Nigerian polytechnic assessed themselves as fairly proficient in webpage design. This is portrayed on the table when the grand mean of 3.18 fell within the real limit of fairly proficient.

Standard deviations indicate the closeness of the respondents' response. Therefore, OTM lecturers in North-West Nigerian polytechnics are fairly proficient in utilizing webpage design application.

Table 2: Summary of t-test analysis of male and female OTM lecturers mean ratings of proficiency on webpage design activities.

Gender	N	Mean	SD	Df	Std Error	t-cal	L/S	t-crit	Decision
Male	86	4.39	2.29	125	0.35	2.23	0.05	1.96	Rejected
Female	41	3.61	1.53						

The t-test findings in Table 2 show that the calculated t-value (t-cal) of 2.23 is less than the critical t-value (t-tab) of 1.96 at 125 degrees of freedom. This finding indicates that there is no

statistically significant disparity at 0.05 level of significance in the mean ratings of male and female OTM lecturers' responses concerning their proficiency in webpage design.

Table 3: Summary of t-test analysis of federal and state lecturers mean ratings of proficiency on webpage design activities.

Institution	N	Mean	SD	Df	Std Error	t-cal	L/S	t-crit	Decision
State	76	3.93	3.78	125	0.70	2.12	0.05	1.96	Rejected
Federal	51	2.44	3.93						

The results from the t-test in Table 3 show that the calculated t-value (t-cal) of 2.12 is greater than the crucial t-value (t-tab) of 1.96 at 125 degrees of freedom and at 0.05 level of significance. The data suggests a significant disparity in the mean ratings of webpage design proficiency level between OTM lecturers in state polytechnics and their counter part from federal polytechnics in North-west Nigeria.

IV. Discussion

Findings of the study showed that OTM lecturers in polytechnics in North-West Nigeria were fairly proficient in teaching webpage design application. The outcome of this study agreed with the finding of Ezenwafor and Garba (2020) which discovered that the webpage design skills of OTM graduate workers in North-West Nigeria polytechnics was little. The result of this study also tallies with the finding of Ndinechi and Okoro (2013)

which reported that OTM lecturers were fairly competent in teaching webpage design. The finding also supported Ezenwafor and Anokpaunu (2016) who averred that business education lecturers in tertiary institutions of south-south Nigeria applied web-base instructional technologies at a low extent. The implication could be that the lecturers' proficiency in teaching webpage design was minimal, hence their incompetence was reflected in their products. Other implications could be that the potential OTM graduates might have serious challenges in the labour market since they could not be able to compete for webpage design jobs with other professionals. This could translate into negative impression on the OTM department and their lecturers.

The study also found a significant difference in the mean ratings of respondents' proficiency for effective teaching of webpage design

as a result of gender. This finding support Ndinechi and Okoro (2013) who discovered a significant difference between the mean rating of male and female OTM lecturers' exposure in teaching webpage design. The result of the study reveals a significant disparity in the mean ratings of webpage design proficiency level between OTM lecturers in state polytechnics and their counter part from federal polytechnics in North-west Nigeria. The finding contradicted the report of Ezenwafor and Garba (2020) which discovered no significant difference on the mean ratings of state and federal polytechnics OTM graduate workers on webpage design competencies.

V. Conclusion

Based on the finding of this study, it was concluded that OTM lecturers in North-West Nigeria Polytechnics do not possess the requisitewebpage design proficiency to effectively teach their students.

VI. Recommendations

1. OTM lecturers in North-West Nigeria Polytechnics should go for self-sponsored training programme in order to improve their proficiency level in webpage design application.
2. Management of the institutions covered in the study should ensure that web-base instructional resources are provided and functional in the OTM departments for effective teaching and learning process.
3. OTM lecturers and students should endeavour to possess personal computers and webpage design tools to augment deficiencies in the teaching and learning of webpage design application.

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