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PSYCHO-DEMOGRAPHIC FACTORS AND ATTITUDE TOWARDS E-LEARNING AMONG STUDENTS OF ADEYEMI FEDERAL UNIVERSITY OF EDUCATION, ONDO, NIGERIA

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Abstract

Attitude towards e-learning has been subject of discussion among the educational stakeholders in Nigeria as it is known that adoption of electronic learning among Nigeria students is low. This study examined the correlate of self-efficacy, self-esteem, demographic factors and attitude towards e-learning among students of Adeyemi Federal University of Education (AFUED), Nigeria. This study adopted the correlational survey design. Samples of 147 students were selected through convenience sampling technique among students of AFUED, Ondo, Nigeria. The instrument comprised of self-esteem, self-efficacy and attitude towards e-learning scale. Pearson Product Moment Correlation and regression analysis were used to analyze the data. The result indicated a significant relationship between self-esteem and attitude towards e-learning {r(147)= 0.398, p=0.01} and self- efficacy and attitude towards e-learning {r(147)= 0.329, p=0.01}. It was further showed that, only age among demographic factors had a significant relationship with attitude towards e-learning. The study concluded that self-esteem, self-efficacy, and age had significantly relationship with attitude towards e-learning among students of AFUED. It is recommended that, the students the university should be encouraged and enlightened about the electronic and other mode of virtual learning.

Keywords: Attitude towards e-learning, self-esteem, self- efficacy, age, the programme of study and mode of study

Introduction

In our contemporary age, we inhabit a digital world where electronic processing and transactions have become integral to every facet of our lives. This digital age encompasses the widespread availability and utilization of modern tools for internet communication, smart devices, and other technological apparatus. This pervasive digital presence has a direct and indirect effect on improving the overall quality of life, simplifying various tasks for individuals. The emergence of the microcomputer in the 1970s marked a pivotal moment, initiating the pursuit of electronic learning at the school level (Palmer &Bray, 2001; Christensen, 2019). Since then, the utilization of electronic learning has experienced significant growth in developed countries, with this innovation extending to both tertiary and lower levels of education. This rapid integration has resulted in enhanced learning outcomes in these nations. However, the adoption of e-

learning in developing countries like Nigeria has been comparatively sluggish. A myriad of factors contribute to this, including the learners' unfavourable attitude towards e-learning and other challenges. Despite the global trend towards digital education, there are barriers facing the use of electronic learning in Nigeria.

E-learning refers to the accessibility of educational curricula and experiences through the utilization of electronic technologies. It is a commonly used term that denotes the modern methods of communication including use of computers and network, various audio-visual materials, search engines, electronic libraries and websites, whether accomplished in the classroom or at a distance (Bilal,2015). This approach is characterized by flexibility, utilizing technological tools to enable learners to study at their convenience, regardless of time or location. Educators are increasingly encouraged to embrace online teaching methods, ensuring that students can continue their learning journeys. This involves the intentional design of programs or courses to be conducted entirely online, facilitated through platforms such as Skype, Zoom, Google Meet, Webex, and Kahoot (Mohd, Rameli, Alhassora, Bunyamin & Hanri, 2020).

E-learning can be divided into two main categories: asynchronous, which includes video streaming, and synchronous encompasses virtual classrooms. Synchronous e-learning involves immediate interaction between learners and instructors, regardless of their disparate locations (Ogbona, Ibezim & Obi,2019). This form of e-learning encompasses real-time learning activities for remote learners, necessitating two-way communication between participants and the instructor. It can be conceptualized as a scheduled delivery of learning and may include video conferencing, multicasts, and virtual classrooms. On the other hand, asynchronous e-learning, in contrast to synchronous learning, does not occur in real time and does not require the immediate participation of learners and instructors. It is a self-paced learning process where students have more control over the learning process, including the timing and content ((Baba, Elfaddouli & Cheimanoff,2021).

However, asynchronous e-learning is more widespread, simpler to develop, and cost-effective compared to synchronous e-learning. It involves instructional activities, knowledge delivery, and the facilitation of student interaction, including the exchange and consideration of diverse viewpoints (Arkorful & Abaidoo, 2014). Educational institutions in developed countries have widely adopted e-learning, with both learners and instructors embracing the full utilization of virtual learning, especially during situations like the COVID-19 pandemic when face-to-face interactions were restricted. Some institutions have integrated electronic learning with traditional face-to-face methods. These approaches not only facilitate knowledge acquisition but also streamline the process of learning and transferring knowledge, making it more efficient than traditional learning methods (Akinbobola, 2015a).

In Nigeria, the emergence of the COVID-19 pandemic has reshaped the education delivery system. Numerous institutions, both public and private, are actively attempting to integrate electronic learning, but the uptake is sluggish. Some institutions face challenges in fully harnessing the benefits of e-learning, primarily due to factors such as the learners' attitudes, deficiencies in technological infrastructure, and other obstacles. There is a prevailing belief that Nigerian institutions are not adequately prepared to fully embrace e-learning options, with issues stemming from institutional and inadequate educational funding, including deficiencies in e-learning infrastructure such as poor internet

accessibility and a scarcity of functional computers in schools (Akinbobola, 2015a). Moreover, many institutions in Nigeria lack the financial capacity to provide ICT equipment for both teachers and learners. The affordability of basic ICT equipment, such as laptops, palmtops, and androids, is a significant challenge for most learners. Even those who can afford such equipment often face issues with the high cost of data required to access the internet. These combined factors hinder the country from fully capitalizing on the advantages of electronic learning. Furthermore, the attitudes of learners towards embracing electronic learning constitute another crucial factor affecting the widespread adoption of electronic and virtual learning in the country.

Attitude is a mental and emotional "hypothetical construct" which characterizes the human personality, a concept which cannot be observed directly, only inferred from people action.(Perloff, 2020). There are many studies that have been carried out on the attitude towards e- learning among tertiary students in developing countries (Izuchi & Opara,2021; Saka, Akinbobola & Saka ,2023; Odit-Dookhan, 2018; Edo (2016) Tabak & Nguyen, 2013; Harandi ,2015; Adewole-Odeshi ,2014; Sabah,2013 ; Obiamaka, Uchechucku & Chinwe (2011) while most of these studies were carried out among University students but this study investigated the attitude towards e-learning among the students pursuing National Certificate of Education (NCE) and degree in education as well as professional diploma in education (PDE) of Adeyemi Federal University of Education Ondo, Nigeria.

Adeyemi College of Education (now Adeyemi Federal University of Education) is the foremost teacher training institution in Nigeria. This institution has over nine thousand students and has a longstanding history of offering certificate programs in education, degree programs, and postgraduate diplomas in education in affiliation with Obafemi Awolowo University, Ile-Ife, Nigeria. It operated in this capacity for decades before attaining full university status on December 23, 2021. The college is recognized as a leading institution for teacher training in Nigeria, its educational innovations have had a significant impact on all levels of the Nigerian education system. Even as a pioneering institution in e-learning among Colleges of Education in Nigeria, the learners' attitudes towards e-learning still not inspiring.

The attitude towards e-learning among students may be influenced by underlying psychological and demographic factors. Psychological factors such as self-esteem and self-efficacy can impact attitudes toward electronic learning. Demographic factors like age, gender, mode of study, and program of study may also play a role in shaping attitudes toward e-learning among students of the institution. Self-esteem, as a psychological factor, determines how individuals feel about themselves, affecting their adoption of e-learning. For instance, a student with low self-esteem may feel comfortable using e-learning methods that involve minimal interaction with other learners. Research indicates that self-esteem and self-efficacy are linked to online learning among adult learners (Zhu, 2019).

Self-efficacy presents another factor that is likely to be correlated with attitudes toward e-learning. It stands as a fundamental principle of social learning theory and is defined as an individual's confidence in their ability to carry out behaviours required to achieve specific performance goals (Bandura, 1997). It also posited that students with high efficacy are more capable of exerting control over their behaviour and adapting to challenging situations. Higher efficacy is associated with a more positive attitude among students (Erdem, 2015). Beyond these psychological factors, various other demographic factors

have been identified as potential influences on the use of e-learning among tertiary institution students in Nigeria. It can be assumed that demographic factors such as age, mode of study, and program of study contribute to e-learning among students of the AFUED.

In terms of age and e-learning, there is a belief that age is often associated not only with a decline in cognitive abilities but also in motor learning. The relationship between age and e-learning is not firmly established, as different perspectives exist. Simonds and Brock (2014) noted that older students tended to show a greater preference for certain types of online learning, while younger students typically favoured more interactive learning techniques. Another demographic factor, the mode of study, may also be related to the adoption of e-learning. Part-time and distance learning students, for example, maybe more inclined to embrace electronic learning due to its flexibility, whereas regular or full-time students may prefer traditional modes of study, exhibiting lower interest in online and e-learning. Considering the issues outlined above, there is a necessity to undertake a study aimed at identifying the influence of psycho-demographic factors towards electronic learning among teacher trainees who play a direct role in imparting knowledge across various levels of the education system. Therefore, the study aims to explore the relationship of psycho-demographic factors and attitudes towards e-learning among students of the AFUED Ondo, Nigeria.

Objectives of the Study

The purpose of this study was to examine the relationship between psycho-demographic factors such as self-esteem, self -efficacy, age, mode of study, program of study and attitude towards e-learning among students of Adeyemi University of Education, Ondo, Nigeria.

Hypotheses

I. There will be no significant relationship between self-esteem and attitudes towards e-learning

II. There will be no significant relationship between students' self-efficacy and attitude towards e-learning

III. There will be no significant relationship between demographic factors (age, mode of study and programme of study) and attitude towards e- learning

Research design

This study adopted correlational survey design. The design was selected because the researchers only observed the relationships between the variables and did not manipulate the independent variables. Self-esteem, self-efficacy, age, mode of study and programme of study are the independent variables while dependent variable is attitude towards e-learning in the study.

Participants

The sample consisted of 147 students of AFUED, Ondo, Nigeria with the use of convenience sampling technique. It is a non-probability sampling technique that involves the sample being drawn from the part of population that is close to hand. It is deduced

that, 17(11.6%) of total respondents are males and female respondents account for 130(88.4%) of total respondents. This indicates that a higher proportion of female students took part in the study than male students. In addition, respondents' age distribution shows that, 87(59.2%) of total respondents are below 20 years, 48(32.7%) are within 21-30 years, 5(3.4%) are within 31--40 years, while 7(4.8%) are within 41-50 years of age.

Table 1: Descriptive analysis showing frequency and percentage distribution of respondents' personal profile

Variable	Levels	Frequency	Percentage
Age	Below 20	87	59.2
	21-30	48	32.7
	31-40	5	3.4
	41-50	7	4.8
	Total	147	100.0
Mode of study	Regular	122	83.0
	Sandwich/Part-time	25	17.0
	Total	147	100.0
Programme of study	NCE Physics	35.	23.8
	History	25	17.0
	Degree Physics	20	13.6
	History	12	8.2
	G&C	20	13.6
	PDE	35	23.8
	Total	147	100.0

Source: Author's Field Survey (2022)

Measures

A questionnaire was used to collect relevant data in this study. The questionnaire comprised of standardized scales with acceptable psychometric properties. The scales in the structured questionnaire were self -esteem, self-efficacy and attitude towards electronic learning. The questionnaire was in four sections: section A, B, C and D measuring demographic variables of the students, self-esteem, self-efficacy and attitude towards electronic learning.

Socio-demographic Variables: Section A of the questionnaire was used to assess the demographic characteristics of the participants which include age, mode of study and programme of study. Age was measured by asking the respondents to give their actual age. The participants were asked to indicate programme of study from these categories: Professional/Postgraduate Diploma in Education, Degree and NCE programmes. They were asked to indicate mode of the study that fall into: Regular and Sandwich/part-time.

The Self Esteem scale has 10 items. The scale was developed by Rosenberg in 1965. It was originally presented as a Guttman scale, but it is typically administered using a Likert-type response format, employing 4, 5, or 7 point scales ranging from Strongly Disagree to Strongly Agree. The Rosenberg Self-esteem scale has internal consistency of 0.77 and coefficient of reproducibility was at least 0.90 (Rosenberg, 1965). The scale is closely connected with the Coopersmith Self-Esteem Inventory. Keep scores on a continuous scale. Higher self-esteem is indicated by higher scores and vice versa.

The general self- efficacy scale is a 10-item which was originally developed by Jerusalem and Schwarzer in 1979 to measure emotion, optimism and self-belief to cope with a

variety of difficult demands in life. This is a self -report measure of self-efficacy. The total score is calculated by finding the sum of the entire items and it ranges between 10 and 40 with a higher score indicating more self-efficacy. The internal reliability is between .76 and .90.

Test of e-Learning Related Attitudes (TeLRA) scale is a 36-item scale developed by Kisanga and Ireson in 2016. TeLRA was adapted to measure the attitude towards e-learning among the students of higher tertiary institution. This scale developed to elicit teacher's attitude towards e-learning. Each item was scored on a 4 point response format, ranging from strongly agree to strongly disagree. The instrument has been shown to perform creditably well with reported Cronbach's alpha score of 0.857 (Kisanga & Ireson, 2016).

Statistical Analysis

Data collected in the study were subjected to statistical analysis using the Statistical Package for Social Sciences (SPSS, version 22). In order to characterize the participants collectively and to summarize the data, descriptive and inferential statistics were employed, including frequency counts, percentages, table means, and standard deviations (SD). The Pearson Product Moment Correlation (PPMC) was employed to examine the relationship between attitude toward e-learning, self-efficacy, and self-esteem.

Procedure for data administration

The permission was requested and approval was given by the management of AFUED, Ondo, Nigeria. After the approval given, the researchers approached the lecture halls where they used to have general courses for both degree and NCE courses and the questionnaire were administered on the condition of anonymity after the researchers introduced themselves and the assistants. The researchers waited to collect the questionnaire while few of them did not return theirs. The questionnaire were administered in Obasanjo lecture hall, Ipaye lecture hall and three other halls in the school. 200 copies of the questionaire were administered while 168 copies were returned and only 147 copies were good for analysis.

Results

Hypothesis One: There will be no significant relationship between self –esteem and attitude toward e-learning among students of AFUED, Ondo.

A Pearson product moment correlation was employed to test the hypothesis at 0.05% level of significance. The respondents' self-esteem and their corresponding scores on attitude towards e-learning were subjected to test of relationship, the analysis result are summarised and presented in Table 2.

Table 2: Pearson correlation analysis showing the relationship between self-esteem and attitude towards e-learning of students of Adeyemi Federal University of Education

Variables	***N***	$\overline{X}$	***SD***	***Df***	***R***	***p-val***
Self-esteem	147	24.02	4.78			
				145	.398**	*0.01*
Attitude towards e-learning	147	79.28	10.51			

{r(147)= 0.398, p=0.01}

The Pearson correlation analysis based on Table 2 shows that, there is a significant relationship between self-esteem (N=147, =24.02, SD=4.78) and attitude towards e-learning (N=147, =79.28, SD=10.51), {r (147) = 0.398, p=0.01}. This suggests that, there is a significant positive relationship between self-esteem and attitude towards e-learning of students of AFUED. The null hypothesis which states that, there will be no significant relationship between self-esteem and attitude towards e-learning is therefore rejected.

Hypothesis Two: There will be no significant relationship between self –efficacy and attitude toward e-learning among students of AFUED.

A Pearson product moment correlation was employed to test the hypothesis at 0.05% level of significance. The respondents' self- efficacy and their corresponding scores on attitude towards e-learning were subjected to test of relationship, the analysis result are summarised and presented in Table 3.

Table 3: Pearson corrélation analysis showing the relationship between self -efficacy and attitude towards e-learning among students of AFUED

Variables	***N***	$\overline{X}$	***SD***	***Df***	***R***	***p-val***
Self-efficacy	147	30.20	6.67			
				145	.329**	*0.01*
Attitude towards e-learning	147	79.28	10.51			

{r(147)= 0.329, p=0.01}

The Pearson correlation analysis based on Table 3 shows that, there is a significant relationship between self efficacy (N=147, =30.20, SD=6.67) and attitude towards e-learning (N=147, =79.28, SD=10.51), {r (147) = 0.329, p=0.01}. This suggests that, there is a significant positive relationship between self-efficacy and attitude towards e-learning among students of AFUED. The null hypothesis which states that, there will be no significant relationship between self efficacy and attitude towards e-learning is therefore rejected.

Hypothesis Three: There will be no significant relationship between socio-demographic factors (age, mode of study and programme of study) and attitude towards e- learning among the students of AFUED.

Table 4: Summary of Pearson Correlation of socio-demographic factors and attitude towards e-learning (N= 147)

Variables	Mean	S.D	Age	Mode of study	Programme	Attitude
Age	1.53	0.77	1			
Mode of study	1.82	0.37	-.013	1		
Programme	2.17	0.78	-.206	.075	1	
Attit to e-learn	79.28	10.51	.172*	-.143	-.145	1

Note: *. Correlation is significant at the 0.05 level (2-tailed)

Table 4 presented the summary of correlation showing relationship between demographic factors and attitude towards e-learning. The result showed significant correlation between age and attitude towards e-learning (r = .172). Also, the results showed no significant correlation between mode of study and attitude towards e-learning (r = .143) and finally, the results showed no significant correlation between programme of study and attitude towards e-learning (r = .145).

Discussion

As the world undergoing digital transformation, the focus on attitude towards e-learning has become crucial, particularly in developing countries where its acceptance is poor. It is imperative to thoroughly examine the influence of psycho-demographic factors on attitudes towards e-learning.

The primary objective of this study is to ascertain the relationship between self-esteem and attitudes towards e-learning among students at AFUED in Ondo State, Nigeria. The findings indicate a significant positive correlation between self-esteem and attitudes towards e-learning among the students. This aligns with the conclusions drawn by Mohd Rameli, Alhassora, Bunyamin, and Hanri (2020), as well as Al-Obaydi, Doncheva, and Nashruddin (2021), who established a correlation between self-esteem and positive attitudes towards e-learning. Thus, high self-esteem is identified as vital psychological variable influencing positive attitudes towards e-learning, while low self-esteem tends to attract negative attitudes. Students with high self-esteem are more likely to embrace e-learning compared to their counterparts with low self-esteem.

The second objective of the study is to explore the relationship between self-efficacy and attitudes towards e-learning among students at AFUED in Ondo State, Nigeria. The findings reveal a significant positive correlation between self-efficacy and attitudes towards e-learning among these students. This finding is consistent with the research conducted by Bobou and Job (2021), who identified a statistically significant relationship between e-learning, self-efficacy scores, and e-learning readiness. Additionally, Yorganci (2017) demonstrated that students with a high level of efficacy exhibit positive attitudes towards mobile learning, and Yau and Leung (2018) found a positive relationship between self-efficacy and attitudes towards the use of technology in learning. This suggests that students with high self-efficacy are more likely to embrace e-learning and adapt easily to challenging situations, including the use of technology for learning.

The third objective is to assess the extent to which demographic factors (age, mode of study, and programme of study) are related to attitudes towards e-learning among students at AFUED, Ondo, Nigeria. The findings indicate that only age exhibits a significant relationship with attitudes towards e-learning among these students. This may

be attributed to the inclination of teenagers and adolescents towards online and social media, perceiving e-learning as a preferable means to explore the world compared to older students. The study also reveals that the programme of study and mode of study have no significant relationship with attitudes towards e-learning among AFUED students. This aligns with the findings of Jan and Mattoo (2018), who reported no significant mean differences among the three fields of research (Arts, Science, and Social Science).

Conclusion

This study indicated that, self-esteem and self –efficacy related with the attitude towards e-learning while only age out of the demographic factors in this study related with attitude towards e-learning while others such as programme of study and mode of programme have no significance relationship with attitude towards e-learning.

Recommendations

As a result of the outcome of the study, the following recommendations are made:

Nigerian schools should go beyond considering ICT infrastructure alone; It is essential to educate students about the benefits of the university embracing e-learning while the psychological factors of the students such as self-efficacy and self-esteem need to be put in consideration as well. The promotion of awareness regarding electronic learning should be intensified, particularly during orientation programs for new students and similar initiatives. School management should actively encourage students to embrace e-learning by organizing introductory courses, providing motivation, and engaging them in its usage. It is crucial to understand that electronic learning has come to stay, and the sooner we integrate it into our education system, the more advantageous it will be for students, institutions, and the country as a whole.

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