
Students' Demographics as Indices of Online Learning Readiness of Distance Learners in Nigeria

Clifford Moses AMINI
RETRIDAL, NOUN.
amini.clifford@gmail.com

Fidel OKOPI
RETRIDAL, NOUN
okopifidel@gmail.com

Abstract

250 students from study centres of the National Teachers' Institute (NTI), and the National Open University of Nigeria (NOUN), responded to the Online Learning Readiness Scale (OLRS), adopted from Hung et al (2010). The age of the male and female students ranged from 18 to 60 years. Among the sampled students are one hundred and seventy (170) single students, and the remaining eighty (80) were married. The study sought to provide answer to the question: Does students' demographics of age, gender and marital status influence their online learning readiness? Multiple regression analysis of three null hypotheses formulated to guide the study show that there is no significant influence of age, gender and marital status on the online learning readiness of distance learners in Nigeria.

Keywords: Readiness, Distance learners, Gender, Age.

INTRODUCTION

Online learning (e-learning) is fast becoming a viable option for disseminating and acquiring knowledge in Nigeria. Both single mode distance learning institutions and conventional university students are engaged in one form of accessing learning materials or the other from the web. It is no longer strange to see students using their mobiles, laptops, iPad, and note books to surf the internet for one information or the other, relating to their course or programme of study. In Nigeria, there are two single mode distance learning institutions- the National Teachers' Institute (NTI) and the National Open University of Nigeria (NOUN). Both institutions engage in online methods of disseminating knowledge and information to their students. There are other emerging dual mode universities that employ both the traditional face-to-face (f2f) and online learning modes to reach out to their students. Such universities as the University of Ibadan, the University of Lagos, Ladoko Akintola University of Technology (LAUTECH), Modibbo Adamawa University, Obafemi Awolowo University and the Ahmadu Bello University(MBA, online), are dual or have one programme or the other delivered online. The dual mode universities operate their online programmes through functional directorates of distance learning, for example the Distance Learning Institute of the University of Lagos (DLI).

The above scenario points to the fact that there have been expansions in the use of technology in disseminating knowledge to online learners in Nigeria. Social networking sites (Facebook, YouTube, Yahoo, Skype, Google), the e-learning systems (like the NOUN iLearn), web-based learning (internet), computers, have helped to increase students access to learning materials (course materials), and the ease of contacting course tutors, and accessing their assignments, and examinations. Internationally, studies have shown that there have been global expansions in knowledge dissemination through online education. Jordan (2014) noted that students who enrolled in the Massive Open Online Courses (MOOCs) may choose either the full time or part time depending on their circumstances. Studies have also revealed that these expansions have also created enormous problems which have impacted on students' online efforts at acquiring requisite knowledge for their advancement (Parker, 2008). Scholars have also come to agree that the expansions in the use of the online approach, and the application of technology to disseminate knowledge have had its share of problems despite its attractiveness to students. Concerns have also been raised about the issues of quality, both locally and internationally; the issues of technology infrastructure, and the performance of students and teachers in the online environment (Warner, Christie & Choy, 1998), Lynch (2001), Smith, Murphy, and Mahoney (2003). These studies have tried to establish online learning with a combination of students' activities: competence in the use of computers, use of electronic media, comfort with e-learning, self-engagements, etc.

It is pertinent at this stage of the discussion to ask, what online learning is all about. The answer to this question, it is hoped, will bring to focus, the concept being advanced in this study. It would be recalled that in the 1990s, a new generation of distance learning emerged in the form of computer-based instructions delivered over the networks, (Colorado & Eberle, 2010). Colorado and Eberle (2010) also opined that the interface of the World Wide Web (www), enables the combination of text, graphics, audio, and video to form the components of a course. This type of distance learning (DL) is often referred to as online learning. Thus Dabbagh and Bannan-Ritland (2005) could define online learning as an 'Open and distributed learning environment that uses pedagogical tools, enabled by internet and the web-based technologies to facilitate learning and knowledge building through meaningful action and interaction'.

According to Dabbagh and Bannan-Ritland (2005), the key components of online learning include pedagogical models, instructional and learning strategies, and pedagogical tools. Any student who employs the use of this model to access knowledge, without the encumbrances of the classroom, time, and space is a distance learning student. A distance learning student may access faculty members, lectures, course information, without the necessary contact with faculty members. Such students could work independently or in group using the benefits of technology and media to contact themselves for the group mutual benefits. For success in online environments students must be ready to learn and apply themselves in the online environment. The present study is intended to investigate three demographic factors (age, gender and marital status) as indices (or predictors) of online learning readiness of distance learners in Nigeria. The study used the students of the National Teachers' Institute and the National Open University of Nigeria (NOUN).

The students' populations of these two single mode institutions and other Directorates of distance learning in the dual mode institutions are varied in terms of age, gender and marital status. Does these demographics influence their readiness to operate in the digital environment? The study had set this as a problem it intends to resolve at the end. So and Swatman (2010) had found that gender and age have significant influence on in-service teachers readiness to learn in an online environment. The researchers were studying to discover how the factors of age and gender influence the e-learning readiness of Hong Kong's Primary and Secondary schools in-service and trainee teachers. More importantly, So

and Swatman (2010) debunked the general perception which was true in the last thirty years that males are better at using ICT than females. This does not hold true again. Wang, Wu and Wang (2008), also investigated the determinants of age and gender differences in the acceptances of mobile learning. The study which was carried out in Taiwan, using 330 participants was based on the Unified Theory of Acceptance and Use of Technology (UTUAT). The study found out that age differences moderate the effects of effort expectancy and social influence on m-learning use of intentions. It also found out that gender differences moderates the effects of social influence and self-management of learning on m-learning use of intention. Contributing to the debate on gender contributing to learners readiness for online learning Hung, Chou, Chen and Own (2010), found that gender made no statistical differences in the OLRs (online learning readiness scale) dimensions. The study was investigating Learners Readiness for online learning: scale development and students perceptions. The findings of Riquelme and Rios (2010) are also relevant to the present study. Riquelme and Rios investigated the moderating effect of gender in the adoption of mobile banking in Kuwait. The researchers discovered that (i) ease of use of mobile banking has stronger influence on females than males and (ii) relative advantage has stronger effect on perception of usefulness on males.

The background theory for the study is the Unified Theory of Acceptance and Use of Technology (UTUAT), which is a technology acceptance model formulated by Venkatesh, Moris, Davis and Davis (2003). The UTUAT aims to explain user intentions to use an information system and subsequent usage behaviour. The theory posits that there are four key constructs (performance expectancy, effort expectancy, social influence and facilitating conditions) that can influence the use of and acceptance of technology. The first three of these constructs, according to Venkatesh et al. (2003) are direct determinants of usage intention and behaviour, and the fourth is a direct determinant of user behaviour. Age, gender, experience, and voluntariness of use are posited to moderate the impact of the four key constructs on usage intentions and behaviour.

METHODS

250 students of the National Teachers' Institute and the National Open University of Nigeria participated as samples for the study. The students were selected purposively from the institutions' study centres in Port Harcourt, Uyo and Calabar. The study surveyed the online learning readiness of the students using the Online Learning Readiness Scale (OLRS). The OLRs was adopted from Hung, Chou, Chen and Own (2010). The OLRs has five subscales (computer/internet self-efficacy, CIS, self-directed learning, SDL, learners control, LC, motivation for learning, MFL, and online learning communication efficacy, OLS). Hung, Chou, Chen and Own (2010) had established the reliabilities of the subscales as 0.74, 0.87, 0.73, 0.84 and 0.87 respectively. A pilot test of the instrument on 50 students in one of the centres provided a split half reliability, $r = 0.80$. The OLRs is a Likert-type questionnaire with a three point rating scale of Agree (3 points), somewhat agree (2 points), and disagree (1 point). Section A of the questionnaire captured the data on the students' demographics of age, gender and marital status. Section B contains the items of the online learning readiness scale.

Participants' Profile

Table 1: Demographic profile of participants

Demographic factors		Frequency	% of total
Age (n = 250)	18 – 25 years	110	44
	30 – 35 years	113	45.2
	40 – 60 years	27	10.8
Gender (n = 250)	Male	92	36.8
	Female	158	63.2
Marital status (n = 250)	Single	170	68
	Married	80	32

The following question would be resolved by the study:

Do the age, gender and marital status of distance learners influence their readiness for online learning?

The following null hypotheses were formulated to guide the study:

HO1. There is no significant influence of age on distance learners' readiness for online learning.

HO2. There is no significant influence of gender on distance learners' readiness for online learning.

HO3. There is no significant influence of the marital status of distance learners on readiness for online learning.

RESULTS

The results of data analysis are presented in the tables below:

Table 2: Summary of multiple regressions analysis for students' age, gender and marital status and online readiness

	Model	R	R Square	Adjusted R. Square	Std. Error of Estimate
<i>Age</i>	1	0.053	0.003	-.001	7.43362
<i>Gender</i>	1	.54	.003	-.001	7.43349
<i>Marital Status</i>	1	-.075	.006	.002	7.42305

Note: Predictors (constants)

Age = 18–25 yrs., 30–35 yrs., 40–60 yrs.

Gender = male – 1; female – 2.

Marital status =

Table 3: Analysis of Variance (ANOVA) Test for the Regression

Variable	Model	Sum of squares	df	Mean square	F	Sig.
Age	1 Regression	39.300	1	39.300	.711	.400
	Residual	13704.176	248	55.259		
	Total	13743.476	249			
Gender	1 Regression	39.811	1	39.811	.720	.397
	Residual	13703.665	248	55.257		
	Total	13743.476	249			
Marital Status	1 Regression	78.253	1	78.253	1.420	.235
	Residual	13665.223	248	55.102		
	Total	13743.476	249			

Note: Dependent variable: online learning readiness
 Predictors (constant):
 Age: – *Result* = Not significant.
 Gender: – *Result* = Not significant. Hypothesis 2 retained
 Marital status: – *Result* = Not significant. Hypothesis 3 retained.

Table 4: Relative effects (contributions) of independent (predictor) variable to online readiness

Model / Variable	Unstandardized coefficient		Standard coefficient	t	sig
	B	Std. Error	Beta		
1 (constant)	68.528	1.236		55.436	.000
age	-.575	.682	-.053	-.843	.400
1 (constant)	68.914	1.659		41.540	.000
gender	-.827	.975	-.054	-.849	.397
1 (constant)	68.914	1.659		41.540	.000
Marital status	.827	.975	-.054	-.849	.397

Note. Result shows that age of students does not predict their online learning readiness.

DISCUSSION AND CONCLUSION

The three null hypotheses tested were retained, showing that there is no significant relationship between age, gender and marital status of distance learners and their online learning readiness. The above scenario varies with the position of So and Swatman (2010), who had established that gender and age influence the e-learning readiness of Hong Kong's primary and secondary school in-service and trainee teachers. However, it must be noted that So and Swatman had used the same study to debunk the believe that males were better than females at ICT. This conclusion means that performances at ICT do not discriminate the gender of the students. This study confirms that there is no significant influence of gender on online learning readiness of distance learners. This present study also agrees with the conclusions of Hung, Chou, Chen and Own (2010), who had found that gender made no statistical differences in the (ONLINE LEARNING READINESS SCALE) dimensions, while investigating Learners readiness for online learning scale development and students' perceptions. While it may not be proper to rule out completely, the contributions of age and gender as influences on students learning, the position of this study is that the contribution of gender and age to the variations in online learning readiness scale are not significant enough to merit serious consideration.

This study is also of the opinion that people of younger age are more prone to playing with computer devices that launch them most of the time to the internet, this may not necessarily imply that age influences significantly when it comes to online learning. More so, in the online learning environment, every student, irrespective of age is responsible for achieving his/her goals and will put in efforts to do so. This motivation for achievement that cuts across all strata of the age differences levels off the influence of age. Thus, the variations seen in the readiness of students in the online environment by different age brackets of students is not significant to merit special attention as seen in the result of hypotheses testing.

As with age and gender, whether a student is married or single does not seem to influence their online learning readiness.

REFERENCES

- Colorado, J. T., & Eberle, J. (2010). Student demographics and success in online learning environments. *Emporia State Research Studies*, 46(1), 4-10.
- Dabbagh, N., & Bannan-Ritland, B. (2005). *Online learning: Concepts, strategies, and application*. Upper saddle River, NJ. Pearson Education Inc.
- Hung, M. L., Chou, C., & Chen, C. H. (2010). Learner readiness for online learning: Scale development and student perceptions. *Computers & Education*, 55(3), 1080-1090.
- Jordan, K. (2014). Initial trends in enrolment and completion of massive open online courses. *The International Review of Research in Open and Distributed Learning*, 15(1), 133 – 160.
- Lynch, M. M. (1998). *How to be a successful distance student: Learning on the Internet*. New York, Pearson Custom Publishing.
- Parker, N. K. (2008). The quality dilemma in online education revisited. In Anderson, T., & ElIoumi, F. (2004). *Theory and Practice of Online Learning*. Athabasca University Press.
- Riquelme, H. E., & Rios, R. E. (2010). The moderating effect of gender in the adoption of mobile banking. *International Journal of bank marketing*, 28(5), 328-341.
- Smith, P. J., Murphy, K. L., & Mahoney, S. E. (2003). Towards identifying factors underlying readiness for online learning: An exploratory study. *Distance education*, 24(1), 57-67.

- So, K. K. T., & Swatman, P. (2010, August). The diminishing influence of age and gender on e-learning readiness of teachers in Hong Kong. In *International Conference on Hybrid Learning* (pp. 477-488). Springer Berlin Heidelberg.
- Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS quarterly*, 27(3), 425-478.
- Wang, Y. S., Wu, M. C., & Wang, H. Y. (2009). Investigating the determinants and age and gender differences in the acceptance of mobile learning. *British Journal of Educational Technology*, 40(1), 92-118.