

THE RELATIONSHIP BETWEEN TERTIARY STUDENTS' DIGITAL TECHNOLOGICAL EXPERIENCE, ACADEMIC ENGAGEMENT AND ACADEMIC ACHIEVEMENT IN PSYCHOLOGY IN DELTA STATE, NIGERIA.

1. Ugoma, F. Obi, A. Ojebu

University of Delta Agbor (NIGERIA)

Abstract

Students' Digital Technological Experience, Academic Engagement and Academic Achievement have always been a prerequisite for effective learning. Especially their relationship in determining academic achievement has been a debate in the field of psychology. Digital Technology from the onsets in the 21st century, has been instrumental to easy access to knowledge, research integration as well as achievement and experience for manpower production in national growth and development. The study examined the relationship that exists among tertiary students' digital Technological experience, academic engagement and academic achievement in three tertiary schools in Delta State Nigeria, - such as the university, Polytechnic and the college of Education. A correlational research design was used for the study. Population of the study comprised 12,500 students drawn from the three different tertiary schools, while the sample was made up of 600 students. Multistage sampling distribution through simple random sampling was used to select the 600 students. Instruments for data collections were the Digital Media Technology (DMT), Students Engagement and Experience Questionnaire (SEEQ) and Students Academic Achievement Questionnaire (TAAQ). The Cronbach's alpha reliability indices of 0.84, 0.85 and 0.74 were high enough for the instruments. Three research questions were raised and answered, using Pearson correlation, while three null hypotheses were tested at 0.05 alpha level, using multiple regression. The findings after the analysis indicated that academic achievement of students in Psychology showed a very low positive relationship with technology. It also showed a very low positive relationship engagement with students in Psychology. Students' technological experience and academic engagement do not significantly predict their achievement in Psychology. Recommendations based on the findings were given such that, parents and lecturers should help to guide undergraduate students on their healthy use of digital Technology to match with their academic engagement and exercises so as to lead to high academic achievement.

Keywords: Digital Technology, experience, academic engagement, academic achievement, Tertiary Students.

1 INTRODUCTION

Ever since the World Wide Web (www) was launched in 1991, there has been a surge of interest in the possibility of learning and improving knowledge through the internet (Otuka, 2010). In Delta State Nigeria, technological experience has become an integral part of life of the people, with its presence influencing almost every facet of life. In psychology, technological experience is perceived as a valuable tool, and affordances of this allow its learning to be reshaped and practiced in distinctive ways (Emesl, 2019). Edutainment as a new method of combining the best practices of education with electronic methods of delivery and interacting, has enabled learning in a faster, more efficient and more entertaining manner attributed to students' technological experience and usage. John and Peter (2004), argued that technology as experience often called the user experience, must take into consideration four areas such as Cognitive, emotional, Social behavior and sensual enactment of interaction with technology. It is reiterated to further rich pedagogical innovation to transform education by improving students' engagement (Eimesi & Miller, 2019).

The concept of academic engagement on the other hand, deals with cognitive vigor, persistence, resilience and efforts in the face of difficulties during academic exercises. Hence, tertiary students' academic engagement and academic achievement in learning psychology involve cognitive commitment, emotional and social behavior in the face of digital technology. Jeffrey (2015) opined that using technology by students in the classroom come primarily from Psychology and other social sciences. And this includes mobile devices and apps, classroom presentation softwares, digital recording, social media and serious gaming, with a side dish of the future's Internet of things. In this way, academic achievement becomes robust and rewarding.



In Delta State Nigeria, digital technological **experience by tertiary students is on a very slow track** towards academic engagement and **academic achievement. Instead, their major engagement and exercises** are geared towards yahooism; internet gambling, **Bet9ja, sexting, selfing Facebooking** WhatsApp chatting, Instagram and cybercrime.

in many studies carried out, digital technological experience has a great influence on academic engagement and academic achievement to both high school students and tertiary students. For example, Biagi and Loi (2013) using data from 2009 Program for International Students Assessment (PISA) found a positive relationship between learners' total use of **digital technology and science test scores in 21 out of 23 countries** they studied.

In Delta State Nigeria, three different tertiary schools are currently in operation—the university, polytechnic and the college of education. The problem now is the relationship between digital technological experience of these students and their academic engagement and academic achievement of those in psychology.

Will technological experience and academic engagement predict psychology achievement of the tertiary students in Delta State? What is the relationship between students' digital technological experience and engagement and achievement in Delta State? Conversely, there's no relationship between students' digital technological experience, academic engagement and academic achievement of those in psychology. It is against this background, the study is centered on examining the relationship that exists among students' technological experience, academic engagement and academic achievement in psychology.

2 METHOD

The study used correlational survey research design. This design was appropriate for the study because it investigated the relationship between digital technological experience of tertiary students' engagement and academic achievement in psychology. Population of the study was 12,500 Psychology students from the three different tertiary schools, while the sample was 600 students. Multistage sampling distribution through random sampling was used to select the 600 students. In the first multistage sampling, purposive sampling technique was used to select two universities out of the four universities in the state, one polytechnic and two colleges of education from the three colleges of education, distributed in the Delta South-South educational zone and Delta North-Central of the state. In the second multistage sampling, simple random sampling through paper balloting was used to pick the 600 students participant out of the 12,500 students in Psychology. Twenty students (20) each were given questionnaires from each school. Instruments for data collection were the media technology usage and experience scale (MTUES) by Rosen et al, (2013), University students engagement Inventory (USEI) and students' academic achievement questionnaire (SAAQ). Students' academic achievement questionnaires (SAAQ) were the academic records of the students obtained from the exams & records departments of the schools. These instruments were validated using content validity. Cronbach's alpha reliability was used to determine the internal consistency of the items which were 0.84, 0.72 and 0.86 for MTUES, USEI and SAAQ. Pearson correlation was used in answering the research questions and testing the hypothesis.

N=600	Academic engagement	technological experience(r	Remarks
	Technological experience	.022	very low positive relationship
	Cognitive	.210	low positive
	Emotional	.088	Very low positive relationship
	Social behaviour	.161	low positive relationship

Table 1 showed that Academic engagement involving cognitive recorded a low positive relationship with students' technological experience, while emotional and social behaviour recorded very low positive relationship with students' technological experience.

Table 2

Relationship between tertiary students' academic engagement and their academic achievement in psychology.

N=600	Academic engagement	Academic achievement in psychology (1	Remarks
	Cognitive	.084	Very low positive relationship
	Emotional	.027	Very low positive relationship
	Social behaviour	.041	Very low positive relationship

Again, Table 2 showed that tertiary students' academic achievement involving cognitive, emotional and social behaviour recorded very low positive relationship with academic achievement in Psychology.

Table 3 proportion of variance in academic achievement in psychology that is explained by students' technological experience and engagement is 0.8%.

N=600	Model	R	R square	Adjusted R Square	STD error of estimate
	1	-.089*	.008	.000	7.4476

Table 4 Test for significant relationship between students' technological experience and academic achievement in psychology.

N=600	Variable	Pearson (r)with students academic engagement and achievement	P-value	Remarks
	Digital experience	0.22	.593	NS
	Cognitive engagement	0.084	.039	S
	Emotional engagement	0.27	.511	NS
	Social Behaviour engagement	0.41	.316	NS

The table 4 above indicated little relationship between students' cognitive engagement and academic achievement in Psychology is significant ($r=0.0847<0.05$), while emotional and social behaviour engagement recorded a non-significant relationship with students' academic achievement in Psychology ($r=0.27>0.05$), ($r=0.41>0.05$). The table also showed that their technological experience is not significant ($r=0.22>0.05$).

3 RESULTS

Findings from the study indicated a very low positive relationship between tertiary students in Delta State Nigeria towards academic engagement and academic achievement. The tested hypothesis using Pearson correlation at 0.05 level of significance (0.22) was not accepted. This means that students' technological experience and academic engagement did not predict significantly the academic achievement of tertiary students in Delta State Nigeria. This is because, students in these higher institutions have not yet recognized the benefits of digital technology. Yet, students in these schools do not have not recognized fully the benefits of digital technology to gain academic achievement by tertiary students in Delta State Nigeria, is contrary to the study and findings from Blag and Lo (2013), who used PISA 2009 data to establish a positive relationship between students' total use of digital technology and science scores of university students.

The very low positive relationship of technological experience of tertiary students in Delta State Nigeria is not encouraging for a course as important as Psychology that deals with human behaviour. This finding though, did not indicate that tertiary students in Delta State Nigeria, have no knowledge or experience at all, in digital technology. Instead, their experience in digital technology to make academic learning easy, is only very low positive.

4 CONCLUSION

In Delta State Nigeria, as well as other states in the country, most students are forming the opinion that education in Nigeria is a failure. This is borne out of the fact that the government does not make adequate provision of employment for them, after graduation. Their academic exercises and engagement are no longer taken seriously, contributing to the very low positive relationship in the digital experience. Their digital experience is therefore channelled towards yahooism, internet gambling, cybercrime, Facebooking, WhatsApp chatting, Ponzis and many internet misdemeanors. (Ugoma, Iyedoh & Augusta, 2020). Their classroom attendance and academic exercises are always obstructed with unnecessary chatting with their counterparts to perpetuate antisocial behaviour online. This is not healthy for a growing country like Nigeria. This study therefore, by way of recommendation is of the opinion that:

- Parents should strictly monitor and encourage their children on the balanced use of smart phone and academic engagement.

- Parents should direct and advise their wards against internet gambling, yahooism, cybercrime which are antisocial behavior.

- Teachers of tertiary students should guide, advise and direct students with positive appeal towards healthy technological experience that will match their academic engagement and achieve higher academically,

- Government of Nigeria should make efforts by all means to provide employments for university graduates, to encourage them to learn and be useful to themselves and the country, so that the illis in the society can be reduced.

In this way, the aggressive belief that education in Nigeria is a failure will be erased.

REFERENCES

Otuika J.O.E E-learning in Nigeria:problem and prospects.Key note address to the faculty of education NnamdiAzikiwe University Awka,Nigeria (2010)

EmesiK.E.Relationship among secondary school students technological experience and academic achievement.Unpublished article Awka Nigeria.

John M.&Peter W.Technology as experience mitpress mit.edu 2004:Retrieved 2022.

Okeke,N.U &Anierobl E.I Journal of the Nigerian Academy of Education.Influence of social media on aggressive behavior of In-school Adolescents in Anambra State,Nigeria vol 16 No 1 pp 269-

278, 2020
BigiLiterature review on impact of digital technology on learning and teaching

www.gov ssct.com 2013.Retrieved 2022.

Ugoma IO,Iyedoh D,Augusta T.Journal of the Nigeria Academy of Education Digital technology Discontent on Academic Engagement and moral behavior among Tertiary students;case study, college of education Agbor,Nigeria Vol 16.No 1 pp 47-57

Rosen,K.W &Rokkum,The media and technology and attitude scale.An empirical investigation w.ncbi.nlm.nih.gov 2013,Retrieved 2022.

Jeffery R.S.The Oxford Handbook of undergraduate psychology education using technology effectively in the psychology classroom 2015..00110.1093/oxford/978019993381

