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Impact of E-learning and Modern Learning Environment, Psychological Well-being and Academic Learning among Tertiary Education Students in Anambra State

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Abstract

The study investigated the impact of E-learning and modern learning environment on psychological well-being and academic learning among tertiary education students in Anambra State. The study was guided by two research questions and two null hypotheses. A survey research design was used in the study and 450 Anambra State tertiary education students made up the study's population. The entire 450 population was sampled for the study. Structured questionnaires with the title "Impact of E-Learning on psychological well-Being" and Academic learning of tertiary education students" and Impact of modern learning environment on psychological well-being and Academic learning of tertiary education students" served as the instruments for data collection. Three experts from Faculty of Education, Nnamdi Azikiwe University, Awka validated the instruments. The Cronbach alpha method was used to assess the instrument's reliability, and the results showed mean reliability coefficient values of 0.74 and 0.82, respectively. The data collected was analyzed using regression analysis. The results of the study indicated that tertiary education administrators should provide adequate infrastructures for effective online teaching and learning. It also recommended that proper and conducive environment that will enhance effective online learning should be provided by the tutors in order to promote the psychological well-being and academic learning of tertiary education students.

Keywords: *E-learning, Modern Learning Environment, Psychological Well-being, Academic Learning.*

I. INTRODUCTION

In tertiary institutions, both lecturers and students have been encouraged to migrate to online learning which is in other words called e-learning. As a result, e-learning has grown in importance due to the quick development of computer and internet technologies. Social norms are being fundamentally altered by the development of technology. Educated and non-educated people use technology frequency for enjoyment and benefits. Obviously, there are different social media platforms like WhatsApp, Facebook, twitter and TikTok which are crucial in education. Students were drawn to these applications because they allowed them to connect with others around the globe. E-learning is one of the many new educational terminologies that students have been exposed to through these applications. E-learning is being used to promote education in several nations, such as Pakistan. In Pakistan, according to Sabir, Ahmed, Ashrat and Ahmed (2013), 70% of students are enrolled in private or remote education programs that provide courses from various universities in order to enhance their academic learning. Furthermore, the continual advancement on e-learning has provided students with the chances to progress in their academic learning. Agostini and Nosella (2020) state that because of certain difficulties, institutions purposefully rely on quick information to become proactive.

While e-learning has been widely accepted and has contributed to the creation of virtual universities in most western countries, only a small number of private institutions in Nigeria fully utilize e-learning for their academic operations, according to Eze, Chinedu, and Eze (2018). Due to inadequate and unreliable technology infrastructure, most people find e-learning challenging to utilize, and for some, it remains a pipe dream. The forced suspension of in-person instruction owing to the global COVID-19 pandemic has so greatly reignited the discussion over the practical efficacy and functionality of

online courses. However, Eze and Eze (2018); and Arghya, Pradip, and Shilpee (2020) define e-learning as a computer-based (e.g., digital, videos, tablets, projectors, and operating systems) learning process that connects digital content, system-based administrations, and monitoring and supports and facilitates student-teacher interaction.

Further, E-learning is a teaching and learning method that goes by several names, including web-based learning, distributed learning, virtual learning, online learning, and network learning. It is a technique of teaching and learning which strongly took effect in late December (2019) when an acute respiratory syndrome infection disease covid-19 was discovered. According to world health organization (WHO), the disease (COVID19), was a worldwide epidemic disease which was spread in more than 200 countries. National governments instructed millions of people, including researchers, students, company personnel, and academies, to stay safe by isolating themselves or enacting a complete or partial global lockdown due to the disease's wild spread. Because of the prolonged usage of lockdown, physical access to the classrooms was consequently limited. Therefore, the fear of missing a class was the biggest psychological worry for pupils. This provided the foundation for the emergence of e-learning in Nigeria.

Additionally, e-learning entails the deliberate application of networked information and communication technologies to education. It is the process of gathering information via the use of media and electronic technology. According to Maytham Salim and Balyes-Sadoon (2021), e-learning is typically conducted online so that students can access course materials from anywhere at any time. Online courses, online degrees, and online programs are the most popular kind of e-learning. E-learning is better to traditional learning methods and offers a number of benefits. The most practical option for obtaining a higher education degree is increasingly e-learning. To earn their degree, many students use a flexible, self-paced educational approach. When considering technology in education, the researchers agreed with Chomsky (2014) that technology is essentially neutral when it comes to education.

Thus, e-learning is defined as learning that is supported by electronic means. Since "e" stands for "electronic," e-learning encompasses any educational activity conducted by individuals or groups utilizing networked and other electronic equipment. Nonetheless, e-learning has the advantage of making education more flexible because there are no time or location restrictions, which facilitates learning. Due to its adaptability, it offers the chance to record conversations for subsequent listening at one's convenience. Therefore, the revolution of e-learning has brought about a remarkable change in how the contents as accesses, discusses and share the learning by internet. E-learning is so beneficial to both office workers and house wives who depending on their comfort and availability, can likewise sign up for online courses at any time. These days, a lot of people decide to

study on the weekends and studying during weekends enables them to allow them to accomplish their week day activities enable them to have access to education and at the same time attend to their psychological wellbeing.

Psychological well-being is very essential in the lives of every tertiary education student. According to Papala, Olds and Feldmaman (2008); The ability to accept oneself as one is, to form relationships with others, to have autonomy, and to have clear goals for one's life are all components of the positive psychological state known as psychology of well-being. It goes without saying that students with balanced psychological well-being will grow up to be the best versions of themselves. Psychological wellness was broken down into several categories by Ryff and Keyes (1995), including self-acceptance, positive interpersonal relationships, autonomous mastery, life purpose, and personal development.

Prabowo (2016) asserts that a student's capacity for positive self-evaluation is a component of self-acceptance. This indicates that a student with positive psychological functioning is able to recognize and accept her strengths and weaknesses. According to Prabowo (2016), students' capacity to sustain cordial interpersonal relationships, trust others, and have intimate, meaningful interactions with the proper individuals are all beneficial aspects of their relationships with others. Once more, autonomy refers to the capacity of students to learn on their own, especially from home, and to confidently pursue their goals in life. On the other side, autonomy refers to the capacity to discover meaning and purpose in life. Nonetheless, this indicates that students value themselves, have aspirations and convictions for a purposeful existence, and are valued to both themselves and other people. Similar to this, the personal growth aspect described how the psychological components should work best in order for the person to mature and become a fully realized person who can reach her full potential (Ryff and Keyes, 1995).

According to Ward and King, (2016), if these dimensions of psychological wellbeing are fulfilled by students, it means that their psychic wellbeing is superior and ideal. In contrast to students with inadequate psychological wellbeing, who lack independence in learning, have poor social relationships, lack clear life goals, and feel inferior among others in their environment, students with optimal psychological wellbeing typically have a positive attitude toward themselves, are independent in their learning, have good social relationships with others, and have the capacity to develop optimally (Dogan, Totan, and Sapmaz, 2013). Hence, there are factors affecting students' psychological well-being and these factors include the following; age, gender and social support (Prabowo 2016).

According to recent studies by Keyes and Waterman (2003), students' autonomy and environmental mastery would grow as they grew older. Similarly, a study by Snyder (2002) demonstrated that gender differences have an impact on students' psychological well-being, with

females more likely than males to have excellent psychological well-being. Overall, this study demonstrated that, even when it comes to academic learning, women typically possess superior interpersonal abilities compared to men. Academic learning signifies the works done in the schools (colleges and universities). It encompasses practical and technical skills as it involves more of studying and reasoning. Academic learning is a type of leaning that enable students to become skilled at knowledge that is educational, scholastic and theoretical (Diane, and Jenny 2016). However, E-learning assists in the dispersed use of educational training in the modern academic learning environment.

An enhanced knowledge inquiry based on pedagogical and technical approaches is referred to as a modern learning environment. A modern learning environment is one that is specifically made to accommodate different learning styles. According to this perspective, it is clear that the contemporary learning environment has a unique appearance, particularly in terms of process and facilitation (Ellaway and Masters, 2008). Therefore, in order to promote learning styles, especially collaborative communication styles, modern learning environments are a type of educational circle that is necessary in schools and higher education worldwide. In terms of promoting learning methods in knowledge inquiry, this integration can help with efforts to give students access to online resources and to embrace the learning. This should be taken into account when designing light classrooms that could inspire students to create open, adaptable learning environments (Maseleno, Huda, Basiron, Jasmi, and Ahmad, 2018). Because they can readily evaluate their lectures, assignments, and even exams, students are now concentrating on online and e-learning programs. Therefore, as previously mentioned, e-learning offers the ability to communicate with any instructor or institution from anywhere in the world and may have a variety of effects on students' academic performance and psychological health in the tertiary education system. With e-learning, for instance, students can view pertinent videos or listen to audio lectures from many instructors from around the globe, giving them additional options and opportunities to improve their knowledge and mental health.

Therefore, the study sought to ascertain the impact of e-learning and modern learning environment on psychological well-being and academic learning among tertiary education students in Anambra State. Specifically, the study intends to determine if:

- E-learning and modern learning environment affects psychological well-being of tertiary education students in Anambra State.
- E-learning and modern learning environment affects academic learning of tertiary education students in Anambra State.
- The study was guided by four research questions which are as followed;

- What are the impacts of E-learning and modern learning environment on psychological well-being of tertiary education students in Anambra State?
- What are the impacts of E-learning and modern learning environment on academic learning of tertiary education students in Anambra State?
- The following Hypotheses were formulated;
- E-learning and modern learning environment has no significant impact on psychological well-being of tertiary education students in Anambra State.
- E-learning and modern learning environment has no significant impact on academic learning of tertiary education students in Anambra State.

II. METHODS

The study employed a correlational research design, which, as noted by Nworgu (2015), aims to identify the correlations between two or more variables. The study was strictly on tertiary education students in Anambra State comprising Nwafor Orizu College of education Nsugbe, Technical college of Education, Umunze, Nnamdi Azikiwe University Awka and Chukwu Emeka Odumegwu Ojukwu Unversity, Anambra. A sample of 450 students were used for the study. The instruments used for data collection were two structured questionnaires which were titled "Impact of e-learning and modern learning environment on psychological well-being questionnaire and impact of e-learning and modern learning environment on academic learning of Tertiary Education Students questionnaire.

The questionnaire was designed on four points rating scale of Very true (VT), True (T), Somehow True (ST) and Not All True (NAT). The instrument was validity by three experts in the faculty of education, Nnamdi Azikiwe University, Awka. The instrument's reliability was assessed using Cronbach's Alpha, resulting in coefficients of 0.74 and 0.82, indicating that the instrument is sufficient and reliable. Three research assistants assisted in the distribution and collection of the data. Multiple regression analysis was used to analyze the data collected. The decision rule was that the Ho is rejected if the p-value is equal or more than 0.05 alpha level of significance, and not rejected if p-value is less than 0.5 alpha level of significance.

➢ *Presentation and the Interpretation of Analysis of Data*

- *Research Question 1:*
  What is the impact of E-learning and modern learning environment on psychological well-being of tertiary education students in Anambra State?

- *Null Hypothesis 1:*
  E-learning and modern learning environment have no significant impact on psychological well-being of tertiary education students in Anambra State.

Table 1: Regression analysis on the impact of e-learning and modern learning environment on psychological well-being of tertiary education students in Anambra State

R	R Square	Adjusted R square	Beta	Df	Cal. T	P-value	Remark
0.493	0.243	0.243	0.493	448	30.974	0.000	S

Table 1 shows that e-learning and modern learning environment had Beta of 0.493. This indicates that e-learning and modern learning environment contributed 49.3 percent on psychological well-being of tertiary education students in Anambra State. With 1 degree of freedom in the numerator, 249 degrees of freedom in the denominator, and a significance level of 0.05, the estimated t-value is 30.97, with a p-value of 0.000, which is less than 0.05; therefore, the null hypothesis is rejected. Thus, e-learning and modern learning environment have significant impact on psychological well-being of tertiary education students in Anambra State.

- *Research Question 2:*
    What is the impact of E-learning and modern learning environment on academic learning of tertiary education students in Anambra State?

- *Hypothesis 2:*
    E-learning and modern learning environment have no significant impact on academic learning of tertiary education students in Anambra State.

Table 2: Regression analysis on the impact of e-learning and modern environment on psychological well-being of tertiary education students in Anambra State

R	R Square	Adjusted R square	Beta	Df	Cal. T	P-value	Remark
0.793	0.629	0.629	0.793	248	21.17	0.001	S

Table 2 shows that e-learning and modern learning environment had Beta value of 0.793. This signifies that e-learning and modern learning environment contributed 79.3 percent on academic learning of tertiary education students in Anambra State. The null hypothesis is rejected once more since the computed t = 21.17 with P-value 0.001 is smaller than the 0.05 at 1df numerator, 248df denominator, and 0.05 level of significance. Therefore, e-learning and modern learning environment have significant impact on academic learning of tertiary education students in Anambra State.

III.   DISCUSSIONS

Table 1 revealed that E-learning and modern learning environment contributed 49.3 percent on psychological well-being of tertiary education students in Anambra State. This implies that e-learning and modern learning environment influenced the psychological well-being of tertiary education students. Based on the findings, it is observed that e-learning and modern learning environment help the students to develop good social relationship with other students and also develop optimal independence in learning without depending on other people. it also revealed that Modern learning environment has a significant impact on psychological wellbeing and academic of tertiary education students. This proved the necessity of providing an appropriate and comfortable environment for students in the university in other to enhance e-learning. The findings on this table corroborates the assertion of Ellaway and Masters, (2008) which said that modern learning environment should have a distinct look especially on its process and facilitations. From the table, it is observed that e-learning and modern learning environment influenced academic learning of tertiary education students as it helps them to set their schedules and consult relevant materials from other libraries. The table also showed that E-learning and modern learning environment have significant impact on psychological well-being of tertiary education students.

The results showed that e-learning offers time flexibility, supporting the claim made by Maseleno, Huda, Basiron, Jasmi, and Ahmad (2018) that e-learning contributes to the creation of a bright environment that may encourage classrooms to create such open and adaptable learning spaces.

Table 2 revealed that e-learning and modern learning environment contributed 79.3 percent on academic learning of tertiary education students in Anambra State. This implies that school administrators should provide adequate infrastructures for effective e-learning in tertiary institutions and make online materials accessible for students use. The table also revealed that E-learning and modern learning environment have significant impact on academic learning of tertiary education students. The findings succinctly agreed with the assertion of Agostini and Nosella, (2020) which stated that continual advancement on e-learning provides students with the opportunities to advance their academic learning since institutions due to some challenges deliberately depend on rapid information to become proactive. It also corroborates the study by Prabowo (2016) that said that E-learning enable students keep positive relationship with others for study purposes. Therefore, it means that attention should be given to e-learning and modern learning environment in other to improve psychological well-being and academic learning of undergraduate students especially in Anambra State.

IV.   CONCLUSION

Based on the results, the study came to the conclusion that e-learning and contemporary learning environments are the most popular educational systems in use today, particularly for students enrolled in postsecondary institutions, and they encourage students to complete their work independently without relying on others. The study however, concluded that E-learning and adequate modern learning environment should be

provided for tertiary institution students in other to improve their psychological well-being and academic learning otherwise enable them to have quick access to the global world for study purposes.

Based on the findings, the study also came to the conclusion that students are more likely to be active learners and to gain more information and insight into contemporary problems when they have access to e-learning and a modern learning environment. The survey also found that students use social media, such as WhatsApp groups, to share their learning resources and look to other libraries for resources to enhance their education, allowing them to cover a variety of subjects.

RECOMMENDATION

- It was recommended that adequate infrastructures should be provided by the school administrators in order to obtain efficient online instruction and learning in tertiary institutes.
- Tutors should provide a suitable environment that could enhance be conducive for online learning and as well promote psychological well-being of the students.
- E-learning material should be constantly monitored and always fixed properly for students use in other to improve their academic learning.
- The infrastructures and other e-learning materials should be made available and accessible for students use.

REFERENCES

[1]. Agostini, I.O. and Nosela, A. (2020). The adoption of industry 4.0 technologies in SMEs results of an international study. *Manage Decision* 58 (4) 625-643

[2]. Arghya, R, Pradip K.B. and Shilpee A.D. (2020). Psychology Analytics Based Technology Adoption Model for Effective Educational Marketing in Digital and Social Media Marketing. *Emerging Application and Theoretical development*. Springer, Switzerland.

[3]. Atsumbe, B.N., Emmanuel, R., Igwe, C.O. and Atsumbe, J. (2012). Repositioning vocational and technical education for effective manpower production in Nigeria. *IOSRJ Mech Civil Eng* 1(4), 1-6

[4]. Diane, m. b. and jenny, r. (2016). Handbook of research on technology tools for real-world skill development pages 27

[5]. Dogan, T., Totan, T. and Sapmaz, F. (2013). The role of self-esteem, psychological wellbeing, emotional self-efficacy and affect balance on happiness: *A Path Model European Scientific Journal*, 9(20)

[6]. Eze, S.C. and Chinedu-Eze, V.C. (2018). Examining information and communication technology (ICT). *Adoption in SME, a dynamic capabilities approach. J enterprise inform Manage* 26(4) 427-443

[7]. Ellaway, R and Master, K. (2008). AMEE Guide 32: E-learning in Medical Education Part 1: Learning teaching and assessment. *Medical teacher,*30 (5), 455-473.

[8]. Eze, S.C., Chinedu-Eze, V.C. and Bello (2018). Utilization of e-learning facilities in the educational delivery system of Nigeria. *A study of M. University Int. J. Education Technology Higher Education* 15 (34) 1-20

[9]. Keyes, C.L.M. and Waterman, M.B. (2003). *Dimensions of wellbeing and mental health in adulthood.*

[10]. Maseleno, A., Huda, M., The, K.S.M., Don, A.G., Jasmi, K.A and Ahmed. R. (2018). Understanding modern learning environment (MLE) in Big Data Era. *International journal of emerging technologies in learning* (IJET), 13(5), 71-85

[11]. Maythan Salim Al-Nasrawii, Balqees Salon Jasim and Alaa M. Dahir (2021). The impact of e-learning on psychological distress among college students during the covid-19 pandemic from the students' point of view. *Turkish Journal of Physiotherapy and Rehabilitations;* 32(3) pp 16997-17003

[12]. Papalia, D., Olds, S. and Feldmamam, R. (2008). *Human Growth and Development*. New York: McGraw Hill

[13]. Prabowo, A. (2016). Kesejahteraan Psikologis remaja di Sekolah. *Journal Ilmiah Psikologi Terapan.* 4(2), 246-260

[14]. Ryff, C.J. and Keyes C.L.M. (1995). The structure of psychological wellbeing revisited. *Journal of Personality and Social Psychology*, 69(4), 719

[15]. Sabir, R.I., Ahmed, W., Ashraf, R.U. and Ahmed, N. (2013). Factors affecting university and course choice: A comparison of undergraduate engineering and business students in central Punjab, Palastan. *Journal of Base and Applied Scientific Research,* 3(10), 298-305

[16]. Snyder, C.R. (2002). Hope theory: *Rainbow in the mind. Psychological Inquiry* 13(4), 249-275

[17]. Ward, S.J. and Krug, L.A. (2016). Poor but happy income happiness and experienced and expected meaning of life. *Social Psychological and Personality Science Science,* 7(5), 463-470.