

**INTEGRATING EMERGING TECHNOLOGIES INTO GUIDANCE AND
COUNSELLING FOR SUSTAINABLE DEVELOPMENT IN
PUBLIC UNIVERSITIES IN SOUTH-EAST,
NIGERIA**

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Abstract

The purpose of the study is to determine the extent to which emerging technologies are integrated into Guidance and counselling for sustainable development in public universities in South-East, Nigeria. Two research questions and two null hypotheses were formulated and tested at .05 level of significance. Descriptive survey research design was utilized for this study. The population for the study comprised all the 107 guidance counselling lecturers in the seven public universities in South-East, Nigeria. No sampling was involved in the study. A 21 itemed questionnaire was used for data collection. The instrument was validated by three research experts. The reliability of the instrument was determined by administering using Cronbach Alpha Reliability estimate. The overall reliability coefficient stood at .57, indicating that the instrument was reliable and suitable for the study. The questionnaire was administered to the respondents by the researcher with the help of two research assistants. Out of the 107 administered instruments, only 103 copies were correctly filled and returned. Mean and standard deviation were used in answering the research questions that guided the study, while t-test statistic was used to test the null hypotheses formulated to guide the study at .05 level of significance. For the decision rule, real limits of numbers were applied. The null hypotheses was not rejected when the significant level is equal to or less than .05 and was rejected when the significant level is equal or greater than 0.05 level of significance. From the result of the findings, it was shown that Machine Learning and Live Streaming were integrated into Guidance and counselling to a little extent for sustainable development in public universities in South-East, Nigeria. It was also concluded that there was no significant difference between the mean scores of male and female Guidance Counsellors on the extent to which Machine Learning and Live Streaming were integrated into Guidance and Counselling for sustainable development in public universities in South-East, Nigeria. The researcher recommended among others that deliberate efforts should be made by Government and Management of Universities in South-East, at assisting to integrate Machine Learning and Live Streaming to Guidance and counselling for sustainable development in public universities in South-East, Nigeria.

Keywords: Emerging Technologies, Guidance and Counselling, Sustainable Development, Machine Learning, Live Streaming

Introduction

The success of any nation can be measured in terms of its technological advancement and entrepreneurship drive. Today however, technology has affected every spectrum of our lives and businesses which has led to huge effect in the way we carry out daily routine. Anirch and Amadi (2020) asserted that every nation today aspire to provide not just good education to its citizenry, but a functional education that will enable an individual realize his/her full potential and as well as become self-reliant and contribute towards national growth and development. With a purposeful planned education and possession of the appropriate knowledge and skill, an individual develops the capacity to become the desired person in life and fulfill life role in the society, through the educational system, characters, attitudes, behaviours, skills, talents and values are modified and transform towards achieving specific or targeted objectives. Rusmana, Murti and Harini (2019) are of the view that the 21st century competence consists of collaborative work skills, lifelong autonomy skills, information and communication technology (ICT) skills, critical and creative thinking skills, English Language skills, and entrepreneurship skill. These skills are embedded in Guidance and Counselling, hence, Guidance and Counselling can be seen as assistance or help that enables them to fit into the world of work.

Guidance and counselling is a confidential dialogue between a client and a counsellor which is aimed at enabling the client to cope with stress and take personal decisions including those regarding parental

care. According to Arowolo (2017), guidance and counselling is a process of helping people to discover their needs, interests and capabilities in order to formulate their own goals and make plans to realize them. Okeke (2017), defined guidance and counselling as a helping relationship involving the counsellor and the client, in which the counsellor uses his professional knowledge and skills to assist the client attain proper development and maturity, improved functioning and ability to cope with life's problems. Guidance and counselling assists learners in harmonizing their values, interests and abilities towards developing their full potentials in school. Guidance and counselling directs students on suitable subject and career choices, solving psychological, social, education and discipline issues, and acts as a precursor to general adjustment to school environment (Mahon & Watson, 2017).

In Nigeria, guidance and counselling in schools has been well received by the government and private sectors since it is a programme that is meant to help students to adjust meaningfully to the environment, develop the ability to set realistic goals and improve on total education programmes (Egbo, 2022). In essence, guidance and counselling combined with education, provide opportunities for students to reach their full potential in the areas of educational, vocational, social and emotional development, hence, it is imperative for schools to consider the implementation of Guidance and counselling (Lunenburg, 2020). Shumba, Mpofu, Seotlwe and Montsi, (2017), noted that guidance and counselling is geared towards

instilling problem solving skills and good academic performance of students through the counselling services and programmes in schools. However, guidance and counselling program within the South-East Nigeria seems to be challenged by some factors such as poor integration of emerging technology which is needed for sustainable development in public universities in South East.

Emerging technology is a term generally used to describe a new technology, it also refer to the continuing development of an existing technology. The evolution of emerging technologies (ETs) is changing all facets of educational processes ranging from the nature of classrooms, quality of content, methodologies, mode of students' engagement, and evaluation (Onyema, 2019). Emerging technologies are those technologies which are "likely to have a large impact on teaching, learning, or creative inquiry on learners, or those technologies which are on the rise" (Bozalek, 2021). Emerging technologies bring about paradigm changes that are taking place at a very rapid pace with respect to the digital world. According to Spector (2019), learning is characterized by stable and persistent changes in what a person or a group of people know and can do. The biggest change in the present era is the application of emerging technologies. This is so because technology play important role in education to foster education activities. Enenta (2023), posited that emerging technologies provide opportunities for educators to improve their skills and job performances.

Emerging technologies introduces flexibility to teaching and learning process,

and takes teaching and learning beyond the physical classrooms. According to Enuma (2023), emerging technologies facilitates online education, research and use of flexible methodologies by educators. Onyema (2019), posited that emerging technologies has brought tremendous transformational changes to education across the globe, and many educators are now moving towards technology-based teaching and learning. Ubaka (2023), revealed that different technology tools and applications have since emerged and are being deployed by education authorities to improve quality teaching and learning in schools. Utilization of emerging technology tools for counselling in universities could yield productive results necessary for sustainable development, achievement of university goals and objectives as well as increasing the rate of technology advancement and academic achievement among undergraduates in universities in South East, Nigeria.

Technological tools such as CCTV cameras, computers, laptop, tablet or smartphone, close circuit television (CCTV), internet, projector, intercom, printer, scanner, television, biometric and recognition technology have proven very useful in teaching and learning (Onyema, Ani, Nnaji, Abdullahi, Alsayed & Noorulhasan, 2019). With the growth in the university systems in size and scope of activities, emerging technologies have provided mechanism for counselling to keep abreast of increasing demands for current and documented information (Tayo & Abass, 2017). Thus, use of psychological test materials and grades assigned to

students must be recorded in some fashion, and these records must be easily and readily accessible to appropriate individuals. Currently, a number of educational institutions and boards are using emerging technology tools and equipment to process information (Rex, 2023). The volume of such operations is often massive involving thousands of students. With the introduction of emerging technologies, these institutions are able to process examination data and announce the results in quickest possible time. This is to say that evolution of tablet computing, mobile applications, cloud computing, virtual technology, artificial intelligence, and many more makes teaching and learning more interesting and productive. The current counselling practices in the education system require counsellors to have the ability to use different types of emerging technology tools with efficiency and confidence. Umeh and Ogbuabor (2024), posited that emerging technology tools relevant for guidance and counselling in universities among others include; Machine Learning (ML), and Live Streaming.

Machine Learning (ML) is a core branch of Artificial Intelligence that focuses on developing algorithms that allow machines to learn from data, instead of being explicitly programmed for every task. According to Dan (2023) ML systems identify patterns and make decisions based on data. He added that ML is widely used in applications like recommendation systems, email filtering, and fraud detection. Rex (2023) revealed that ML is used by counsellors to identify students who need extra support, analyze their learning

effectiveness, and make data-driven decisions about their classroom practices. Felmzy (2024) stated that ML can be used to analyze large datasets of student information to identify patterns, trends, and potential areas for improvement in teaching and learning. Abimbola (2023) noted that ML is used to analyze students' performance and to predict future academic outcomes, identify students who may be at risk of falling behind. Similarly, Zag (2023) averred that ML can analyze student data on academic performance, skills, and interests to recommend suitable career paths and fields of study. Zag added that with ML can automatically grade certain types of assessments, such as multiple-choice questions and short answer responses. There is an indication that despite the relevance of ML in universities no empirical evidence has been shown of ML integration with regards to Guidance and counselling in universities in South East, Nigeria. The Guidance counsellors in universities in South East with respect to the use of emerging technology tools such as Machine Learning are yet to be empirically ascertained. This is a gap that needs to be filled and is the focus of the present study. Close to Machine Learning is Live streaming.

Live streaming is an emerging technology which refers to the delivery of video or audio data to an audience over the internet as the data is created. It is the broadcasting of real-time, live video using the internet. According to Hassan (2019), live-streaming is an interactive form of social media applications that enable viewers to achieve a variety of goals, such

as acquiring useful information and gaining social support. The adoption of Live Streaming (LS) for online education via mobile devices provides an opportunity to address the time constraints and limited resources. Samantha (2022), posited that live streaming is an increasingly popular form of mobile-based social interaction that people use on a daily basis. Online users of live streaming have reached 433 million in China, accounting for more than half of the total Internet population. Raniah and Karsten (2015), noted that the extensive usage of live streaming makes it a natural and popular choice for schools and teachers to adopt to broadcast their classes online during this transition. Increased awareness of guidance and counselling can be achieved through live streaming (Abur, 2024). However, there has been little research on the use of live streaming platforms for formal education particularly in Nigeria. Studies by Ubaka (2023) and Kathy (2025), showed the benefits of using live streaming to support counselling programmes are enormous. Samantha (2022), found that the combination of live teaching through live streaming platforms and social communication through chat software can greatly improve the intimacy between counsellors and students. It becomes imperative to ascertain the extent to which live streaming are integrated in Guidance and Counselling in universities in South East. These gap needs to be filled and it is the focus of the present study, especially in public of universities in South East Nigeria.

The South East is one of the six geopolitical zones of

Nigeria, representing both a geographic and political region of the country. It comprises five states namely: Abia, Anambra, Ebonyi, Enugu, and Imo. These states are located in the southeastern region of the country and are known as the homeland of the Igbo people. South-Eastern Nigeria is an area covering about 76,358km² east of the lower Niger and south of the Benue valley. The region is located between latitudes 4 and 7 degrees north of the Equator and between longitudes 7 and 9 degrees east. The area is one of the most populous regions in the country. The region is recognized for its thriving commercial and industrial activities, particularly in areas like plastics, textiles, and agro-allied products with several public universities. Public Universities in South East, Nigeria seems to be confronted with several challenges. It is a combination of inadequate funding, curriculum content and delivery, strike actions, decline in quality of research in the universities, issues of autonomy, lack of integration of information and communication technology (ICT) in the Universities, brain drain syndrome, inadequate infrastructural facilities and equipment, cultism, and political interference in establishing public universities (Bueze, 2021). Eze and Eziolisa (2022), in their view believed that most graduates in South East are deficient in terms of the necessary skills and competencies required for employment in contemporary organizations, hence they are more or less unemployable. It should be recalled that as part of her efforts to reverse this ugly trend, especially as it affects graduate unemployment, the government of

Nigeria in 2006 introduced entrepreneurship as a compulsory course in tertiary institutions with the aim of preparing graduates for entrepreneurial success through private sector initiative (Agbonlahor, 2016). The initiative was to serve as the flagship to drive economic and social reconstruction against the backdrop of youth unemployment. At this juncture, repositioning universities as centers for building self-sustaining graduates becomes necessary through guidance and counselling. Similarly, Agboola and Ademiluyi (2015) reported that the introduction of guidance and counselling in tertiary institutions was aimed to produce graduate entrepreneurs with the right attitudes and skills to spur them on part of creativity, innovation and enterprise irrespective of gender.

Gender has to do with socially expected behaviours of male and females. In Nigerian society, there are differences and inequalities in the assignment of responsibilities between women and men, activities taken, access to and control over resources as well as possession of some qualities (Ugwu, 2024). Nsofor (2023) observed that from socio-cultural orientation, women generally believe that they are weaker vessels and that rough and tough jobs are meant for boys. This induced wrong perception and negative feelings of some individuals towards guidance and counselling in universities in South East. Selpher and David (2015) stated that there is significant relationship between counsellors' ability and attention to duties. Several researchers have suggested that gender stereotypes could affect the counselling practice and ICT usage of females (Baron,

2022). According to Ogundele and Etejere (2023) females utilized AI tools than the males, however males possessed more internet operational skills than the females. Study by Alaje (2023) reported that female counsellors possessed efficient AI operational skills and used AI components more than their male counterparts. Adeboyo (2021) contend that male counsellors are found to be more active and utilized AI such as machine learning and robotics than the female counterparts. The issue of gender has gained much attention with little or no conclusion especially as regards the integrating emerging technology into guidance and counselling for sustainable development in public universities in South-East, Nigeria.

This researcher is worried that if adequate measures are not taken to enhance the status of guidance and counselling program in South-Eastern Nigeria, education delivery might be jeopardized. This is because there is need for sustainable development approach to the poor status of public universities in South-East, Nigeria. More so, integrating emerging technologies into guidance and counselling will equip students with essential 21st-century skills through immersive and practical learning experiences (Bueze, 2021). This approach fosters critical thinking, real-world exposure via virtual networking and simulations, and an understanding of digital tools, ultimately preparing students to thrive in a globalized digital economy. Based on this it has become imperative that integrating emerging technologies into guidance and counselling should be explored. It is against this background that the researcher is motivated

to carry out this research on integrating emerging technologies into guidance and counselling in universities in South-East, Nigeria, as a means for ensuring sustainable development of public universities in South-East, Nigeria. This constitutes the gap that this study filled.

Statement of the Problem

It has been realized that there is a total decline in the status of public universities in South East, Nigeria. This is based on the fact that public universities in South East, Nigeria seems to be confronted with several challenges such as inadequate funding, curriculum content and delivery, strike actions, decline in quality of research in the universities, issues of autonomy, lack of integration of information and communication technology (ICT) in the Universities, brain drain syndrome, inadequate infrastructural facilities and equipment, cultism, and political interference in establishing public universities. In response to the above integrating emerging technologies into guidance and counselling should be given priority attention considering the fact that it is an important aspect of education aimed at producing undergraduates for the economic development and advancement of the nation and for the practices and operations of the recipients of the programmes. To keep abreast global practices and trend, emerging technologies such as Machine Learning (ML), and Live Streaming need to be fully and adequately incorporated and integrated into guidance and counselling in universities of learning, particularly in universities within South East, Nigeria. This will not only make the graduates to be competent,

relevant and up-to-date in their chosen careers/fields, but will also enable them to compete favourably and actively with their counterparts across the globe.

Being that emerging technology is increasingly attracting global attention, especially among academic researchers, students and teachers, which necessitated their need for use in counselling. There have been some controversies for some time about the integration of emerging technology in guidance and counselling in universities in South East, Nigeria. Since the evolution of emerging technology, there is an indication that counsellors and undergraduates have shown great interest on its utilization. There is a belief that most university consellers devote more time and interest in emerging technology use than being without it. More so, there is a feeling that emerging technology is beneficial for the undergraduates as it contributes to their learning experience as well as their social lives. Based on the gap on different research evidence on the relevance and integration of emerging technology tools into guidance and counselling in universities, the need for an empirical documentation on the extent of integration of emerging technology tools into guidance and counselling for sustainable development in public universities in South-East, Nigeria has become necessary.

Purpose of the Study

The main purpose of the study is to determine the extent to which emerging technology are integrated into guidance and counselling for sustainable development in public universities in South-East, Nigeria. Specifically, the study sought to:

1. determine the extent to which Machine Learning (ML) is integrated into guidance and counselling for sustainable development in public universities in South-East, Nigeria.
2. ascertain the extent to which Live Streaming is integrated into guidance and counselling for sustainable development in public universities in South-East, Nigeria.

Research Questions

The following research questions were posed to guide the study:

1. To what extent is Machine Learning (ML) integrated into guidance and counselling for sustainable development in public universities in South-East, Nigeria.?
2. To what extent is Live Streaming integrated into guidance and counselling for sustainable development in public universities in South-East, Nigeria?

Hypotheses

The following null hypotheses formulated and tested at .05 level of significance, guided the study:

1. A significant difference does not exist between the mean response scores of male and female Business Educators on the extent to which Machine Learning (ML) is integrated into guidance and counselling for sustainable development in public universities in South-East, Nigeria.
2. There is no significant difference between the mean response scores of male and female Business Educators on the extent to which Live Streaming is integrated into guidance and counselling

for sustainable development in public universities in South-East, Nigeria.

Method

Descriptive survey research design was utilized for this study. Descriptive survey research design, according to Nworgu (2015) is one in which a group of people or items is studied by collecting and analyzing data from only a few people or items considered to be representative of the entire group. A descriptive survey research is concerned with specified population of persons, item or situation, in a defined geographical location. It involves the collection of relevant data for or about the population that enables the description of the person, items or situations the way they are. The descriptive survey research design was considered suitable for the study as it solicits for information from the respondents directly and affords all the respondents equal chance of being chosen for the study. The population for the study comprised all the 107 Guidance and Counselling Lecturers in the seven public universities in South-East, Nigeria. The population is made up of 63 female and 44 male Guidance and Counselling Lecturers in the public universities in South-East, Nigeria. The population was chosen because they are in the right position to give valid responses to the instrument as professionals. The entire population was used for the study due to its manageable size. Hence, no sampling was involved in the study. A 21 itemed questionnaire named “Integrating Emerging Technologies into Guidance and Counselling for Sustainable Development Questionnaire (IETGCSDQ)” developed by the researcher was used for data collection.

The instrument had two sections; A and B. Section A contains the respondents bio data while section B was divided into two sub sections with 21 items structured in line with the research questions that guided the study. Sub sections 1 is on Machine Learning with 13 items, while sub sections 2 is on Live streaming with 8 items. The response format for the instrument was 4-point scale of Very Great Extent (VGE), Great Extent (GE), Little Extent (LE), Very Little Extent (VLE). Each response option had numerical value assigned to it as follows;

Very Great Extent (VGE)	= 4 points
Great Extent (GE)	= 3 points
Little Extent (LE)	= 2 points
Very Little Extent (VLE)	= 1 point

In order to ensure the face validity of the instrument, draft copies of the instrument together with the research title, purpose of the study, research questions, hypotheses, and the developed instrument were given to three experts. Two of the experts were from the Department of Guidance and Counselling, while one of the experts was from the Department of Mathematics and Computer Education (Measurement and Evaluation Unit), all from Enugu State University of Science and Technology. They were requested to assess the relevance, adequacy, suitability and comprehensiveness of the items in addressing the research questions as well as the clarity of the instruction to the respondents. Their comments, suggestions and advice were used in restructuring the instrument. The reliability of the instrument was determined by administering 20 copies of the questionnaire to a sample of 20 Business Educators in public universities in

South-South, Nigeria. The choice of using Guidance and Counselling Lecturers in public universities in South-South, Nigeria was because they have similar characteristics, the respondents were assured of confidentiality of all the information they supplied. Data collected from the respondents were analyzed using Cronbach Alpha Reliability Coefficient to determine the internal consistency of the instrument. The instrument which was divided into two sub section yielded the following reliability coefficient; sub section 1 had .61, while sub section 2 had .54. The overall reliability coefficient was .57, indicating that the instrument was reliable and suitable for the study. The questionnaire was administered to the respondents by the researcher with the help of two research assistants that were properly briefed on the content of the questionnaire and its administration to ensure that the questionnaire was properly administered. The research assistants assisted in the retrieval of the completed questionnaire and appointments was booked with the respondents for collection at a later date for those who were not able to fill their own copies of the instrument because of the nature of their job. Out of 107 administered instruments, only 103 copies of the questionnaire instruments were correctly filled and retrieved. The statistical tools for data analyses for the study was mean, standard deviation and t-test statistic. Mean and standard deviation were used in answering the research questions that guided the study, while t-test statistic was used to test the null hypotheses formulated to guide the study at .05 level of significance. For the decision rule, real limits of numbers were

applied. Therefore the upper and lower limits of the mean are as follows;

Mean score from 3.50 – 4.00 = Very Great Extent (VGE)

Mean score from 2.50 – 3.49 = Great Extent (GE)

Mean score from 1.50 – 2.49 = Little Extent (LE)

Mean score from 0.00 – 1.49 = Very Little Extent (VLE)

For the hypotheses, the null hypotheses was not rejected when the significant level is equal to or less than 0.05 and was rejected

when the significant level is equal or greater than 0.05 level of significance.

Results

Research Question 1:

To what extent is Machine Learning (ML) integrated into Guidance and counselling for sustainable development in public universities in South-East, Nigeria?

Table 1:

Mean Response and Standard Deviation of the Respondents on the Extent to which Machine Learning (ML) Integrated into Guidance and Counselling for Sustainable Development in Public Universities in South-East, Nigeria.

N=103

S/N	Machine Learning (ML) Integrated into Guidance and Counselling include;	Male N=42		Female N=61		Overall		Decision
		\bar{X}_1	SD ₁	\bar{X}_2	SD ₂	\bar{X}_G	SD _G	
1	for research purposes	2.19	0.51	2.18	0.50	2.18	0.50	LE
2	for data collection	1.95	0.58	1.95	0.59	1.95	0.58	LE
3	for data analysis	2.00	0.62	2.02	0.62	2.01	0.62	LE
4	for students personal learning	1.81	0.67	1.82	0.67	1.82	0.67	LE
5	to respond to questions	1.90	0.69	1.90	0.70	1.90	0.69	LE
6	to provide solution to classwork	1.95	0.66	1.97	0.66	1.96	0.66	LE
7	to influences students' interest to studies	1.81	0.74	1.82	0.74	1.82	0.74	LE
8	for assisting lecturers	1.76	0.76	1.77	0.76	1.77	0.76	LE
9	give access to teaching contents	1.52	0.67	1.52	0.67	1.52	0.67	LE
10	enhance institutional image	1.48	0.67	1.49	0.67	1.49	0.67	VLE
11	enhance the image of counselling	1.33	0.48	1.34	0.48	1.34	0.48	VLE
12	improve students interest in counselling	1.43	0.50	1.44	0.50	1.44	0.50	VLE
13	administer psychological test	1.67	0.72	1.67	0.72	1.67	0.72	LE
Cluster Mean/SD		1.75	0.58	1.76	0.64	1.76	0.64	LE

Note: X=Mean; SD=Standard Deviation; LE= Low Extent; VLE= Very Low Extent

Data presented in Table 1 indicates that items have an overall item mean ratings

for items 10, 11 and 12 were 1.49, 1.34 and 1.44 indicating very low extent. The

remaining items mean score ranges from 1.34 to 2.18, which were below the cut-off point as indicated in the decision rule. The Standard deviation values are small indicating that the respondents' responses are closely clustered around the mean, signifying that their responses are homogenous. The overall cluster mean rating (1.76) indicated low extent. This implies that Machine Learning (ML) integration into Guidance and counselling for sustainable development in public

universities in South-East, Nigeria was to a low extent.

Hypothesis 1:

A significant difference does not exist between the mean response scores of male and female guidance and counselling lecturers on the extent to which Machine Learning (ML) is integrated into guidance and counselling for sustainable development in public universities in South-East, Nigeria.

Table 2: t-test on the Mean Scores of Male and Female Guidance and Counselling Lecturers on the Extent to which Machine Learning (ML) is Integrated into Guidance and Counselling for Sustainable Development in Public Universities in South-East, Nigeria.

Variables	N	t	df	Sig. (2tailed)	Sig. Difference	Std. Error Difference	Decision
Male	42	-	101	.920	-.09212	.91469	NS
Female	61	.101					

NS= Not Significant

The data obtained from the t-test analysis in Table 2 shows that the t-value at .05 level of significant and 101 degree of freedom for the items is 0.091 with a significant value of 0.920. Since the significant value of .920 is more than the .05 level of significant the null hypothesis is not significant. The null hypothesis is therefore not rejected. This means that there is no significant difference between the mean scores of male and female guidance and

counselling lecturers on the extent to which Machine Learning (ML) is integrated into Guidance and counselling for sustainable development in public universities in South-East, Nigeria.

Research Question 2:

To what extent is Live Streaming integrated into guidance and counselling for sustainable development in public universities in South-East, Nigeria?

Table 3: Mean Responses and Standard Deviation of the Respondents on the Extent to which Live Streaming is Integrated into Guidance and Counselling for Sustainable Development in Public Universities in South-East, Nigeria.

N=103

S/N	Extent Live Streaming is Integrated into Guidance and Counselling include;	Male N=42		Female N=61		Overall		Decision
		\bar{X}_1	SD ₁	\bar{X}_2	SD ₂	\bar{X}_G	SD _G	
14	streaming of counselling charts	1.62	0.66	1.64	0.66	1.63	0.66	LE
15	streaming of counselling posters	2.10	0.82	2.07	0.79	2.08	0.80	LE
16.	demonstration of counselling processes	1.81	0.51	1.82	0.50	1.82	0.50	LE
17.	streaming of seminar for students	1.76	0.43	1.75	0.43	1.76	0.43	LE
18.	streaming of counselling awareness programmes	1.67	0.57	1.66	0.57	1.66	0.57	LE
19.	advertising the school counselling programmes	2.00	0.70	2.00	0.71	2.00	0.70	LE
20.	streaming of educative counselling programmes in the university	1.86	0.65	1.85	0.65	1.85	0.65	LE
21	streaming of counselling calendar	1.95	0.66	1.97	0.66	1.96	0.66	LE
Cluster Mean/SD		1.85	0.63	1.85	0.62	1.85	0.62	LE

Note: X=Mean; SD=Standard Deviation; LE = Low Extent

Data in table 3 shows the mean response and standard deviation on the extent to which Live Streaming is integrated into guidance and counselling for sustainable development in public universities in South-East, Nigeria. All the items are of low extent. The mean responses of (1.63 to 2.08), are lower than the cut-off point. The Standard deviation values are small indicating that the respondents' responses are closely clustered around the mean, signifying that their responses are homogenous. The overall cluster mean of 1.85 also depicts low extent. This implies

that Live Streaming integrated into guidance and counselling for sustainable development in public universities in South-East, Nigeria was to a low extent.

Hypothesis 2: There is no significant difference between the mean response scores of male and female guidance and counselling Lecturers on the extent to which Live Streaming is integrated into guidance and counselling for sustainable development in public universities in South-East, Nigeria.

Table 4: T-test on the Mean Scores of Male and Female Guidance and Counselling Lecturers on the Extent to which Live Streaming is Integrated into Guidance And Counselling for Sustainable Development in Public Universities in South-East, Nigeria.

Variables	N	t	df	Sig. (2tailed)	Sig. Difference	Std. Error Difference	Decision
Male	42	.013	101	.990	.00781	.60808	NS
Female	61						

NS= Not Significant

The result of data analysis obtained from the t-test in Table 4 shows that the t-value at .05 level of significant and 101 degree of freedom for the items is .013 with a significant value of .990. Since the significant value of .990 is more than the .05 level of significant the null hypothesis is not significant. The null hypothesis is therefore not rejected. This means that there was no significant difference between the mean scores of male and female guidance and counselling lecturers on the extent to which Live Streaming is integrated into guidance and counselling for sustainable development in public universities in South-East, Nigeria.

Discussion

The findings in research question one indicated that Machine Learning (ML) was integrated into Guidance and Counselling for sustainable development in public universities in South-East, Nigeria to a low extent. The comparison of the comparison of the male and female Guidance and Counselling lecturers in public Universities in South-East, Nigeria showed that there is no significant difference between the mean scores of male and female Guidance and Counselling Lecturers on the extent to which Machine Learning (ML) is integrated into Guidance and Counselling

for sustainable development in public universities in South-East, Nigeria. These findings are in contradiction with Rex (2023) who revealed that ML is used by counsellors to identify students who need extra support, analyze their teaching effectiveness, and make data-driven decisions about their classroom practices. The findings is not in line with Abimbola (2023) who noted that ML are used to analyze students' performance and to predict future academic outcomes, identify students who may be at risk of falling behind. ML can be used to analyze large datasets of student information to identify patterns, trends, and potential areas for improvement in teaching and learning. Therefore, government and university administrators should assist in adopting Machine Learning (ML) into Guidance and Counselling for sustainable development in public universities in South-East, Nigeria.

Result in research question two indicated that Live Streaming was integrated into Guidance and Counselling for sustainable development in public universities in South-East, Nigeria to a low extent. The comparison of the comparison of the male and female Guidance and Counselling lecturers in public Universities

in South-East, Nigeria showed that there is no significant difference between the mean scores of male and female Guidance and Counselling lecturers on the extent to which Live Streaming is integrated into Guidance and Counselling for sustainable development in public universities in South-East, Nigeria. These findings disagree with the Ubaka (2023) who revealed that different technology tools and applications have since emerged and are being deployed by education authorities to improve quality teaching and learning of guidance and counselling in schools. The findings are not in consonance with Samantha (2022), who posited that live streaming is an increasingly popular form of mobile-based social interaction that people use on a daily basis. Being that utilization of Live Streaming for Guidance and Counselling in universities could yield productive results necessary for sustainable development, achievement of university goals and objectives as well as increasing the rate of technology advancement and academic achievement among Guidance and Counselling students in universities in South East, Nigeria, efforts should be made by the management of Universities in South-East, Nigeria at utilizing Live Streaming in Guidance and Counselling for sustainable development in public universities in South-East, Nigeria.

Educational Implications of the Findings

The findings of this study hold implication for the government and administrators of Universities.

The implication of this study is that government needs to do more as regards enhancing emerging technology tools usage

in universities in South East, Nigeria. The findings of this study hold serious implication on the government who are responsible for providing quality education to its citizenry as it will assist the government in making policies and guidelines with regards to enhancing quality education in the Universities. The finding of the study would serve as a guide to the government on the need for adoption of Machine learning and Live Streaming in Universities for sustainable development of public universities in South-East and Nigeria at large.

There is an indication that the university authorities of public universities in South East do not have any policy document as regards integration of emerging technologies in South East, Nigeria. The study holds implication for administrators of Universities as it explores emerging technology tools and recommendations that will help to facilitate and to influence sustainable development of public universities in South-East and Nigeria at large.

Recommendations

Based on the findings of the study the following recommendations were made.

1. Government and university administrators should adopt Machine learning for sustainable development of public universities particularly in South-East, Nigeria.
2. Efforts should be made by the management of Universities in South-East, Nigeria at utilizing Live Streaming for sustainable

development in public universities in South-East, Nigeria.

3. Deliberate efforts should be made by Government and Management of

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