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Academic Staff Proficiency Towards Utilization Of Emerging Technologies For Their Job Performance In Universities In Anambra State

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Abstract: ***The use of emerging technologies is fast growing in the education industry, yet many university academic staff seem not to efficiently utilize them during their job performance. The importance of use of emerging technologies in enhancing effective teaching and learning has been buttressed by various researchers in most empirical studies and notwithstanding this fact, many academic staff of the universities still depend and heavily rely on the traditional and conventional method during students' project supervision, research execution and instructional delivery. However, the academic staff can only utilize this emerging technologies when they are highly proficient. This situation has promoted the present study to investigate academic staff proficiency towards utilization of emerging technologies for their job performance in universities in Anambra State. Four research questions guided the study. The descriptive survey research design was employed in the study. The population for the study comprised 2,397 academic staff from two public universities in Anambra State. The sample size of the study consisted of 479 academic staff from the two public universities in Anambra State selected at 20% using the simple random sampling technique. A 37-item questionnaire personally developed by the researcher and titled "Academic Staff Proficiency towards Utilization of Emerging Technologies Questionnaire (ASPUET) was the primary instrument for data collection. It was structured on a 4-point scale of Highly Proficient (HP), Proficient (P), Fairly Proficient (FP) and Not Proficient (NP). The questionnaire was validated by three experts from the Department of Educational Management and Policy including a Measurement and Evaluation expert, from the Faculty of Education, in Nnamdi Azikiwe University, Awka, Anambra State. Reliability of the research instrument was established through a pilot test sampling 18 academic staff from one university in Enugu State. After the pilot-test, scores were measured using the Cronbach Alpha statistics which gave coefficient reliability values of 0.83, 0.71, 0.75 and 0.79 for the three clusters respectively, which were added up to give an overall internal consistency reliability value of 0.77 showing that the instrument was reliable. Data were analyzed using mean scores rated at 2.50 and standard deviation statistics. Findings of the study revealed among others that many of the academic staff were not proficient towards utilizing majority of these emerging hardware, software, social media and google app technologies for their job performance in universities in Anambra State. Based on the findings of this study, recommendations were proffered and among them include that the University management should adequately provide most of the emerging hardware and software technologies so as to improve academic staff proficiency towards the utilization of these technologies for their job performance in universities in Anambra State. Also, academic staff should be financially sponsored by the University management in order to engage in basic computer and e-learning training programmes that will improve their proficiency towards utilization of the software packages, social media and google app technologies for their job performance in universities in Anambra State.***

Keywords: Academic Staff, Proficiency, Utilization, Emerging Technologies (ET), Job Performance, Universities

I. INTRODUCTION

The Nigerian universities are important citadel of learning well-known for both human capacity building and national development. The universities as described by the Federal Republic of Nigeria (FRN, 2013) are higher or tertiary education institutions known for manpower development for the country. They train professionals, likewise offer various

full-time, part-time and sandwich academic programmes (both undergraduate and postgraduate programmes) and offer courses in various fields of studies in order to produce competent and vibrant individuals who will make significant changes and contributions towards the nation's economy. According to the Higher Education Committee (2019), a university means a higher educational institution offering a wide range of registered undergraduate and graduate curricula in the liberal arts and sciences, degrees in two or more professional fields, and doctoral programmes in various academic fields. Hence, the importance of the universities in the Nigerian society can never be overemphasized. The university exposes students to new research and technology, encourages creative and independent thought, students are given the chance to travel and experience life overseas through study abroad programmes, university life exposes students to other cultures and backgrounds, and promotes sustainable development in the society (Monash University, 2022). Given the relevance of the Nigerian universities to sustainable development, their goals and objectives as enlisted in the National Policy on Education according to the Federal Republic of Nigeria (FRN, 2013, p.39 & 41) are to contribute to national development through high level manpower training; intensify and diversify its programmes for the development of high level manpower within the context of the needs of the nation; provide assessable and affordable quality learning opportunities in formal and informal education in response to the needs and interest of all Nigerians; provide high quality career counselling and lifelong learning programmes that prepare students with the knowledge and skills for self-reliance and the world of work; reduce skill shortages through the production of skilled manpower relevant to the needs of the labour market; promote and encourage scholarship, entrepreneurship and community service; make professional course contents reflect our national requirements; make all students part of a general programme of all-round improvement in university education, to offer general study courses such as history of ideas, philosophy of knowledge, nationalism, and Information Technology (IT); and make entrepreneurial skills acquisition a requirement for all nigerian universities, among others.

Achievement of the above goals and objectives of the universities and those of Anambra State inclusive cannot be possible without the academic staff who are seen as professional teachers and educators whose main responsibility is to enhance excellence in the teaching and learning situations at the universities. Ashimole (2011) underscored that teaching and learning in the university is hinged largely on the 'academic staff' and that it is on the academic staff number, quality and devotion that reels the effectiveness of all educational arrangements, development and growth. The academic staff of the universities according to the IGI Global Partnerships (2022) are personnel employed for research and teaching by higher education institutions such as the university. They are part of University staff employed in a University to teach, do research, and conduct community engagement. Falemara (2013) opined that the importance and contributions of the university academic staff which comprises the graduate assistants, lecturer II and I, senior lecturers, associate professors and professors to the society at large cannot but be over-emphasized because the prospects of every individual and the nation as a whole lie in the hands of the teacher. Thus, 'no nation and education system can rise above the quality of its teachers' (FRN, 2013). The academic staff stand out in variety of resources as a pivotal key towards achieving the high standards that are progressively emphasized in education systems across the country. Their job performance and primary assignment as further indicated by the IGI Global Partnerships (2022) includes, instruction, research, or public service, among others. Academic staff therefore, cannot effectively execute or perform their jobs, task, functions and responsibilities especially in the present 21st century technology era without adequate and constant support of emerging technologies. Supporting the above statement, Kayode, Irele, Agunbiade and George-Kayode (2019) pointed out clearly that the relevance of job performance is very crucial to the long-term growth of any occupational system around the world. It probably ranks alongside professional knowledge and skills, center competencies, educational resources as well as strategies, in genuinely determining career success. Job performance is the ability to carry out a responsibility in accordance with laid rules. The rate and degree of performance is determined through evaluation which is the systematic way of estimating the worth, quality, importance and relevance of a programme with a view to rating, correcting, improving or changing the system or program. It is frequently expressed that job performance is a function of ability and technology. Performance can be regarded as almost any behaviour, which is directed toward task or goal accomplishment. The importance of technology, its impact on employee performance and motivation, are recognized by many human resource practitioners and organizations today. Almost all organizations employ the use of Information Communication Technology (ICT) as a means to develop and introduce value adding and efficiency-enhancing innovations in the organizations thus leading to enhanced job performance. Job performance therefore, is a measure of how well ICT achieve its purpose and it has many different aspects to it. Proficiency is one of the fundamental dimensions of job performance (Kayode et al, 2019). Besides, Edeh, Sharma, Nwafor, Fyneface, Sen, and Edeh (2020) defined academic staff job performance as doing meaningful work in effective and efficient ways. Wesly (2015) saw job performance as worker's outcomes in achieving organizational objectives in which they work. Nurharani, Nur and Nur (2013) viewed teachers' job performance as the way in which a teacher behaves in the process of teaching, and it is known to be related to teachers' effectiveness. Teachers' job-performance determines their qualities in enhancing and developing National Education growth (Wesly, 2015). Therefore, Nurharani, Nur and Nur (2013) illustrated that employees' precision, accuracy and ability to do the job, are closely related efforts in carrying out their responsibilities in order to deliver a good performance (Edeh et al, 2020). Parry and Battista (2019) stated that emerging technologies help employees to update their skills to compete in the future world of works and that it will continue to have a dramatic effect on their job performance. The utilization of emerging technologies in the universities has long been initiated by the Federal Republic of Nigeria (FRN,

2013) which indicated that the Information Technology (IT) training shall be incorporated into all academic programmes. However, technologically-based professional courses in the universities shall be offered in the universities which necessitates teachers in professional fields be exposed to the use of technologies (pg. 42).

The FRN (2013) further stressed that in recognition of the prominent role of Information Technology (IT) in advancing knowledge and skills necessary for effective functioning in a knowledge driven world, government shall provide adequate infrastructure and develop capacity for effective utilization of Information Technology (IT) to support and enhance the delivery of various educational system in Nigeria which includes university education (FRN, 2013, p.15). Utilization of emerging technologies in the education system was really buttressed during the lockdowns and school closure of the COVID-19 pandemic era in which all educational institutions were instructed to make use of digital and online technologies in executing their teaching and learning activities. Onyema, Nwafor, Obafemi, Sen, Sharma, Atonye and Alsayed (2020) attested that the spread and damaging effects of COVID-19 on the education sector necessitated the need for all educational institutions, educators, and learners to adopt emerging technology into teaching and learning. Many educators and students relied on technology to ensure continued learning online during the Coronavirus pandemic. Also, many emerging technologies were used to teach and deliver lessons to students online through the social media technologies and google apps like the google classroom, send and receive students' assignments, supervise students project, notify and update both students and their parents about their children/wards grades and on other educational matters, conduct students' assessment and so on. In essence, emerging technologies can be described as technologies which causes a radical change to the education industry, business industry and society at large (Halaweh, 2013). They might sometimes not necessarily be new in one region but because of the fact that they just coming up in a place or region makes them new and emerging. Technology is labeled as emerging in a particular context (domain, place, or application) but would have been established elsewhere long ago. In the same vein, Omehia, Okwu and Nsirim (2021) defined emerging technologies as technologies that although may have been in existence for some time but are yet to be largely realized and adopted in a particular discipline. It could also be defined as an innovation in technologies that enables one to access, collect, process, explore, evaluate, explain, document, archive, disseminate, share and or communicate contents. According to the Independent University (2020) the term applies to technologies that are currently creating or will create lasting economic or social effects. Rotolo, Hicks and Martin (2015) defined it based on five attributes of: radical novelty, relatively fast growth, coherence, prominent impact, and uncertainty and ambiguity. Technology is also considered emerging when it is not widespread in a particular context (Rotolo, Hicks & Martin, 2015). Most of the examples of these emerging technologies as posited by Fulton (2019), Goodman (2019), Halaweh (2013), Omehia, Okwu and Nsirim (2021), Rotolo, Hicks and Martin (2015), Stahl (2011), among other scholars includes, use of new hardware devices and software applications, social media networking such as Zoom, twitter, Facebook, Instagram, WhatsApp, Skype, YouTube, Edmodo, schoology, Dropbox, etc, Google apps such as google classroom, google meet, google hangouts, google calendar, google drive, google forms and the likes, cloud computing, ambient intelligence, digital readers and tablets, 3D printing, photocopiers and scanners, mouse, USB flash drive, desktops, monitor, laptops, virtual reality, robotics and artificial intelligence, Gamification, mobile technology, Learning Management System (LMS), among others.

The advantages in using emerging technologies in the administration of university education was highlighted by the FRN (2013) who indicated that the use of technologies as one of the educational support services would promote effectiveness of the educational system, develop and improve educational programmes, enhance teaching and improve teachers' competence, provide conducive environment for learning, make learning experiences more meaningful and realistic for learners, enhance access to learning, develop and promote effective use of innovative materials in educational institutions, enhance teacher job performance and make education more cost effective. Therefore, benefits towards academic staff proficiency towards utilizing these emerging technologies for their job performance in the universities according to Wanjala (2013), has positive effects mainly in the form of improved teaching efficiency, quality work, reduced time wastage, and convenience in storage, retrieval and dissemination of accurate information which promotes teaching and learning for positive outcomes. Additionally, utilization of emerging technologies is also essential in facilitating other tasks such as: preparation of student report forms, teaching time tables, communication with parents, conducting research, students' supervision and assessment, online registration of students, consultancy services, among others (Wanjala, 2013). Onyema and Deborah (2019) observed that the use of emerging technologies facilitates and complements remote learning, distance learning, virtual learning, blended learning, mobile learning, distributed learning, machine learning, ubiquitous learning, deep learning, cooperative and collaborative learning. However, the use of emerging technologies will enhance academic staff job performances in such areas as facilitating online education, student-teacher interactions, connection and relationships. They enhance teaching and learning experiences, content creation, course sharing, assessments, and feedback. The use of appropriate emerging educational technologies increases accessibility to learning resources such as Massive Open Online Courses (MOOCs), and multiple learning approaches to meet the need of diverse learners. Academic staff can reach and interact with their students from any location using Zoom, videoconferencing, the google classroom, and lectures can be fixed at any time of convenience. Academic staff and students can optimize these emerging technologies to supplement classroom teachings such as WhatsApp, google classroom, google meet, Dropbox, etc and to improve their digital skills in line with emerging trends in education. More so, utilization of emerging technology increases teachers' and students' interest, competence, confidence, creativity, employability and output, and also prepares them for the future (Onyema et al, 2020). From all the foregoing discussions, the focus of this

present study is to determine academic staff proficiency towards utilization of emerging hardware, software, social media and google app technologies. Hardware technology according to Zandbergen (2021) is the collection of all the computer parts in which one can physically touch. They may include desktop computer consisting of a computer case and a separate monitor, keyboard, and mouse, laptops, smartphones, etc. Software is a set of instructions for a computer to perform specific operations. They include the Microsoft Office Suite applications such as Microsoft word, excel or spreadsheets, PowerPoint, Microsoft access, OneNote, etc, graphic design, among others. Both hardware and software are needed for a computer system to work (Zandbergen, 2021). Social media technologies encompass Internet applications that support the creation and exchange of user-generated content, that require a certain degree of self-disclosure and that allow for a certain level of social presence (Kaplan & Haenlein, 2010). Carr and Hayes (2015), in an effort to present a more precise and future-proof definition, summarized social media as: Social media are Internet-based channels that allow users to opportunistically interact and selectively self-present, either in real-time or asynchronously, with both broad and narrow audiences who derive value from user-generated content and the perception of interaction with others. Emerging technologies such as Facebook, WhatsApp, Instagram, Zoom, Blogger, Twitter, Word press, LinkedIn interest, Google+, Tumbir, Myspace and Wiki, fall under this category. According to Mkpa (2020) opined social media technologies come in different forms such as internet, social networks, forums, social blogs, micro blogging, social bookmarking, weblogs, photographs or pictures, video, rating and podcast.

Google app technologies according to Awuah (2015) are designed to facilitate the provisioning of the Google suite of applications and other collaborative tools, such as Gmail, Google Drive, Google Classroom, Google Meet, Hangouts, Google Forms, Google Sites, Google Calendar, Google Group platforms, Google Docs, Google+, Google Sheets and Google Chat, among others. For academic staff to successfully utilize these emerging technologies, they would have been proficient in using them. Being proficient in utilizing the emerging technologies as described within the confines and context of this present study requires that academic staff have the knowledge, skills, efficiency, attitude and competence in using these technologies. Thompson (2014) described it as the ability of a University teacher to make use of the various ICT tools such as e-mail, the Internet, World Wide Web, intranets, extranets, online database and other networking technologies in teaching and research. Notwithstanding, Thompson (2014) identified some technological skills in which educators and academic staff need to have in order to become proficient/competent in utilizing the emerging technologies and they are; word processing skills, spreadsheets skills, database skills, electronic presentation skills, web navigation skills, website design skills, e-mail management skills, videoconferencing skills, WebCT or blackboard teaching skills, knowledge of PDAs, deep web knowledge, scanner knowledge, educational copyright knowledge, Internet navigation skills, touch typing, among many others. Fort (2017) and Thompson (2014) went further so say that educators should have the proficiency and competency in searching the web efficiently, mastering Microsoft Office and basic word processing, being willing to learn new technology, connecting with social media, sharing and collaborating via YouTube and blogging, downloading software from the Web (including e-books), installing computer software, getting ahead in the cloud, reaching out with e-mail, making your point with presentation software, among others. But looking at the poor service delivery coupled with the poor teaching and learning currently going on in the universities which continues to negative effect students' academic performances and achievements all over the university academic programmes, one begins to imagine and doubt academic staff proficiency towards utilization of emerging technologies which were supposed to assist them in the provision of quality education for positive outcomes in the universities. Falemara (2013) asserted that there has been this societal outcry about the falling standards of university education in Nigeria. This apparent decline in the quality of university education and moral values as further observed by Falemara is argued to be caused by indifferent attitude of the undergraduates' towards acquiring quality university education, while majority faults the academic staff for the miseries and provision of poor quality education in the university system. However, if academic staff were proficient in handling many of these emerging technologies, they would improve the quality of instructional delivery by creating innovations through their job performances that will impact positively on students' learning outcomes. The success of university education is driven by the ability to adapt, change, and grow with the emerging technologies which should be integrated by the academic staff. This situation therefore, has warranted this present research study to investigate academic staff proficiency towards utilization of emerging technologies for their job performance in universities in Anambra State.

STATEMENT OF THE PROBLEM

The use of emerging technologies is fast growing and wide spreading all over the world including in the Nigerian education sector. New hardware, software, social media and google app technologies are being developed to make the teaching and learning process much easier and accessible from different locations. With the technological advancement, emerging technologies are developed in dual capacity to be exploited through the hardware technologies such as the mobile smart phones, desktops and laptops, etc., including online web-based technologies to create highly interactive platforms which enables both educators or teachers and students to improve their job performance, classroom teaching and communication, share knowledge, discuss ideas and to adopt new teaching techniques in order to promote students' learning. Evidence from most research have indicated that using different emerging technologies can encourage online discussions among teachers and students outside the classroom, beyond the traditional class setting, which assisted teachers to improve their job performances. But irrespective of the great significance and benefits of utilizing the emerging technologies in education, university academic staff have continued to teach with the conventional and traditional methods. Many academic staff still rely heavily on the

conventional way of delivering instructions, supervising students, conducting students' assessment and research, among others. This situation which is worrisome in this present technological advancement has continued to draw attention of most researchers and education stakeholders to ask questions concerning academic staff proficiency towards utilization of emerging technologies for their job performance. Moreover, it is not still clear in Nigeria, particularly in Anambra State, about the proficiency of academic staff towards utilization of emerging technologies for effective instructional delivery in the universities. Therefore, in bid to cover this gap, the problem of the study is to examine academic staff proficiency towards utilization of emerging technologies for their job performance in universities in Anambra State.

PURPOSE OF THE STUDY

The purpose of this study was to examine academic staff proficiency towards utilization of emerging technologies for their job performance in universities in Anambra State. Specifically, this study determined the following:

- ✓ Academic staff proficiency towards the utilization of emerging hardware technologies for their job performance in universities in Anambra State.
- ✓ Academic staff proficiency towards the utilization of emerging software technologies for their job performance in universities in Anambra State.
- ✓ Academic staff proficiency towards the utilization of emerging social media technologies for their job performance in universities in Anambra State.
- ✓ Academic staff proficiency towards utilization of emerging Google App technologies for their job performance in universities in Anambra State.

RESEARCH QUESTIONS

The following research questions guided the study:

- ✓ How proficient are academic staff towards the utilization of emerging hardware technologies for their job performance in universities in Anambra State?
- ✓ How proficient are academic staff towards the utilization of emerging software technologies for their job performance in universities in Anambra State?
- ✓ How proficient are academic staff towards the utilization of emerging social media technologies for their job performance in universities in Anambra State?
- ✓ How proficient are academic staff towards utilization of emerging Google App technologies for their job performance in universities in Anambra State?

II. LITERATURE REVIEW

Previous ICT and technology-based empirical studies have been conducted by different researchers. Wanjala (2013) conducted a study on teachers' perceptions on the use of information communication technology in the administration of public secondary schools in Kimilili District, Bungoma County, Kenya and found out that although the teachers were very enthusiastic and positive about using ICT in administration; however, teachers were not well equipped with relevant ICT skills for use in administration. The finding also revealed that teachers perceived that using computers reduced time wastage, enhanced their job performance and job satisfaction. They perceived the registration of KCSE candidates using computers and internet as very essential in administration of secondary schools. Despite the high level of inadequacy of ICT facilities, teachers were generally happy and appreciated ICT in view of the gains such as making work faster and easier. Ademodi and Adepoju (2019) studied the possession of computer skills and competencies in the use of computer with a population of thirty comprising academic librarians from which a sample of twenty-four was drawn. The data were analyzed using frequency count and simple percentages. They found out that 87.5% of librarians were computer literate. They also found that the most commonly reported skill was to navigate and explore the internet. Omehia, Okwu and Nsirim (2021) carried out a study on librarians' ICT competencies and utilization of emerging technologies in academic libraries in Rivers State, Nigeria. The study revealed that the use of ICTs by Librarians for library and information products and services are minimal and that there is a significant relationship between ICT competencies of Librarians and utilization of emerging technologies in academic libraries in Rivers State. This implies that if the Librarians are proficient in the ICT competencies they will perform their work effectively. In another study, the findings of Eze, Chinedu-Eze and Bello (2018) showed that 89% of participants agree that there are sufficient e-learning facilities for use; the facilities are user friendly and the facilitates help to significantly improve learning. However, 72% of the participants indicated that the attitudes of users, inadequate Internet facility and inadequate training are major inhibitors. The findings also indicated that although there are quite a number of e-learning facilities available in most private Universities compared to public universities (as indicated by the lecturers), the usage of e-learning facilities in private universities is still on the average. This is as a result of lack of technical know-how and the attitudes of the staff which reveal the low level of usage of ICT equipment and facilities in schools today. The implication is that the University should regularly conduct training especially when new faculty are employed to ensure that they adapt and use them. Furthermore, there should be some kind of weekly monitoring to ensure that lecturers use them in classes at all times. Ojiegbe (2010) investigated the ICT competencies of library staff in the University of Abuja, FCT and University of Jos, Plateau State. Simple random sampling was used and the instrument used for data collection was a questionnaire which were analyzed using percentages and mean scores. Findings revealed that most of the library staff in university libraries performed Microsoft word based tasks like typing and printing of documents and could provide online searches using the internet but could not perform effective professional library related duties using ICT. It was stressed that Staff needed ICT competencies in the areas that can assist them handle professional related duties, like internet skills, mastery of library software and technical skills. The finding of Darko-Adjei (2019) study revealed that the distance learning

students find it easier to use a smartphone in their learning activities. The findings also revealed that the use of smartphones performed remarkable roles among the distance learning students of the University of Ghana in their academic activities.

Kayode, Irele, Agunbiade and George-Kayode (2019) study on ICT for effectiveness and job performance of staff in the universities in Nigeria revealed that secretarial staff must be conversant with the modern use of ICT tools such as Wi-Fi, Internet technologies, among others, in order to improve their competence in the performance of their job. It is also important for the secretarial staff to be up to date in this globalized world to know the use of ICT for effective performance of their job. And this applies to the two universities that have been researched. Sarfo, Amankwah, Oti-Agyen and Yidana (2016) carried out a study on ICT access and use and competency level among second-cycle school teachers in Ghana. It adopted the global citizenship survey instruments to collect the data which was analyzed using SPSS version, descriptive statistics and Chi square. The results revealed that majority of the respondents used mobile phones (89%) and e-mail for social communication (80). It was further discovered that most of the respondents possessed high competence level in ICT applications. In the study of Abubakar and Salmanu (2018), the findings revealed that there is a great challenge by teachers for using internet. Most of them did not have the knowledge of computer and Internet. A part from the fact that teachers in Kaduna State Central Senatorial Zone were not computer literate they were also fund not making effort at having ICT skill that would boost their job performance after majority of them agreed that computer would boost their academic performance. Nkamnebe, Okeke, Udem and Nkamnebe (2015) study on extent of information and communication technology skills possessed by librarians in university libraries in Anambra State, Nigeria, found out that the librarians were highly-skilled in basic computing, word processing, and file management and were moderately-skilled in information search and retrieval, Internet and World Wide Web. They were weakly-skilled in library automation, e-mail operations, and were not skilled in automated cataloguing and classification/use of OPAC, presentation using Microsoft PowerPoint, Database creation/management. Anyoku (2012) conducted a search on computer skills of librarians in Nigeria. Anyoku detected that although the findings of the research showed an improvement over previous studies' levels, some percentage of librarians still rated themselves as deficient in vital areas of computer skills. Ansari (2013) studied ICT skills proficiency of library professionals in universities in Karachi, Pakistan. The objectives of the study were to investigate the proficiency of ICT skills of library professionals at the universities in Karachi, Pakistan, and to find out the areas in which library professionals need to acquire ICT skills, among others. Findings revealed that the library professionals in universities in Karachi, Pakistan were not equally proficient in all areas of ICT skills. The majority are moderately proficient. The findings of Mkpa (2020) study revealed that junior secondary school teachers are more familiar with Facebook, WhatsApp, twitter, and YouTube, among other social media networks to a high extent. The study also showed that teachers had positive perception about social media impact in education, though they do not use the media for educational purpose, rather, they employed the social media account to connect with and chart with friends, for sending private messages, uploading photos, online profiles, watching movies, communicating and interacting with friends. Gender difference was not significance among teachers in terms of perception and using social media in education. Nwoke, Ikwuanusi and Onuoha (2020) study studied educators' competence and utilization of social media in science teacher education and discovered that the educators were competent on the use of social media for personal purposes. Social media platforms were not utilized for academic purposes in the training of trainee teachers.

In a similar study, Iftakhar (2016) found out that although Google Classroom offered different features, but most of the teachers were not proficient using them. Consequently, students remain unaware about the effectiveness of Google Classroom. The study of Bordbar (2010) supports this finding. Bordbar confirmed that when a teacher lacks knowledge and skill about technology, she or he reports negative or neutral attitude. They accepted the of use Google Classroom for professional development but their adaptation in teaching was very low. This study found that most of the teachers prefer to use Learning Feedback System. Another related study by Alimi (2017) on lecturers' awareness of, access to and competency in the use of google apps for education in Nigerian universities found out that lecturers were generally not competent in the use of GAfE (Google Apps for Education) as the observed grand mean of 1.96 was lower than the benchmark score of 2.50. Ekpoh and Etor (2012) study found out that the level of ICT competence among academic staff was low and the extent of academic staff utilization of ICT in knowledge creation activities was significantly low. All the empirical studies reviewed has shown the connection between academic staff proficiency towards utilization of the emerging technologies and their job performance. Most of the studies reviewed centered on ICT skills, attitudes and competency of library staff and teachers but remarkably to the researcher's best of knowledge no study has been documented on academic staff proficiency towards utilization of emerging technologies for their job performance in universities in Anambra State. The present study therefore, provides literature on academic staff proficiency towards utilization of emerging hardware, software, social media and Google Apps technologies for their job performance in universities particularly in Anambra State and also support existing literatures and studies on ICT skills, attitudes and competencies of teachers.

III. METHODS

The descriptive survey research design was employed in the study. The design involved using a questionnaire constructed by the researcher to gather information from a sample of academic staff selected from their population in two universities in Anambra State and thereafter, the information gathered were analyzed using the most appropriate statistics to draw inferences and report the findings of the study. The population for the study comprised 2,397 academic staff from

two public universities in Anambra State (that is, Nnamdi Azikiwe University (NAU), Awka & Chukwuemeka Odimegwu Ojukwu University (COOU), Igbariam). The sample size of the study consisted of 479 academic staff from the two public universities in Anambra State selected at 20% using the simple random sampling technique. A 37-item questionnaire personally developed by the researcher and titled "Academic Staff Proficiency towards Utilization of Emerging Technologies Questionnaire (ASPUET) was the primary instrument for data collection. It was structured on a 4-point scale of Highly Proficient (HP), Proficient (P), Fairly Proficient (FP) and Not Proficient (NP). The questionnaire was validated by three experts from the Department of Educational Management and Policy including a Measurement and Evaluation expert, from the Faculty of Education, in Nnamdi Azikiwe University, Awka, Anambra State. Reliability of the research instrument was established through a pilot test sampling 18 academic staff from one university in Enugu State. After the pilot-test, scores were measured using the Cronbach Alpha statistics which gave coefficient reliability values of 0.83, 0.71, 0.75 and 0.79 for the three clusters respectively, which were added up to give an overall internal consistency reliability value of 0.77 showing that the instrument was reliable. Method of data collection was through a face-to-face, personal contact with the academic staff using two research assistants from each of the universities. A total of 479 copies of the questionnaire were distributed on the spot and were equally retrieved immediately by the researcher and research assistants. Administration of questionnaire to the respondents took a period of 5 working days and were all retrieved at a 100% rate of return and sent out for appropriate computation. Data were analyzed using mean scores rated at 2.50 and standard deviation statistics. The decision rule for taking decision was that any mean score which rated at 2.50 and above was regarded as proficient; meanwhile any of the mean score which rated at 2.49 and below was regarded as not proficient.

IV. RESULTS

RESEARCH QUESTION 1. How proficient are academic staff towards the utilization of emerging hardware technologies for their job performance in universities in Anambra State?

S/N	Please indicate your proficiency in utilizing the under listed emerging hardware technologies. Proficiency in:	HP	P	FP	NP	X	SD	Decision
1.	Operating the newest smart mobile phones	122	188	90	79	2.74	1.02	**Proficient**
2.	Turning on, typing on the keyboard and shutting down personal laptops	120	219	63	77	2.80	0.99	**Proficient**
3.	Using any desktop computer connected together with monitors, keyboards, mouse, microphones, speakers and cameras to perform task	59	82	148	190	2.02	1.03	**Not Proficient**
4.	Teaching effectively with modern microphones inside the lecture halls or rooms	125	198	81	75	2.78	1.00	**Proficient**
5.	Saving documents in latest computer storage device such as flash drive, CD-ROM, external hard drive	49	115	151	164	2.10	0.99	**Not Proficient**
6.	Printing documents with 3D printers	67	96	157	159	2.15	1.03	**Not Proficient**
7.	Scanning documents using latest scanners	84	114	180	101	2.38	1.00	**Not Proficient**
8.	Sending documents using newest fax machines	99	106	156	118	2.39	1.07	**Not Proficient**
9.	Duplicating documents using newest duplicating machines	55	100	145	179	2.06	1.02	**Not Proficient**
10.	Inserting the modem to any computer system together with operating it to carry out any online activity	87	103	205	84	2.40	0.98	**Not Proficient**
11.	Using new digital cameras to carry out research work	36	97	177	169	2.00	0.93	**Not Proficient**
12.	Operating the newest projectors for presentations in lecture rooms	91	86	155	147	2.25	1.09	**Not Proficient**
	Overall Mean Score =					**2.34**	**1.05**	

Table 1: Mean Scores and SD Ratings of Academic Staff concerning their Proficiency towards Utilization of Emerging Hardware Technologies for their Job Performance in Universities in in Anambra State N = 479

Analysis of data in Table 1 revealed all the only items 1, 2 and 4 were rated above 2.50 of the accepted mean score by the academic staff in order to show that they agreed with all these statements. Except for items 3 and 5 to 12 which were rated below 2.50 of the accepted mean score by the academic staff in order to show that they disagreed with all these statements. The overall mean score and standard deviation (SD) of 2.34 and 1.05 determined closeness in the mean responses of the academic staff. Therefore, this result indicates that the academic staff were not proficient towards utilization of emerging hardware technologies for their job performance in universities in Anambra State.

RESEARCH QUESTION 2. How proficient are academic staff towards the utilization of emerging software technologies for their job performance in universities in Anambra State?

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S/N	Please indicate your proficiency in utilizing the under listed emerging software technologies. Proficiency in:	HP	P	FP	NP	X	SD	Decision
13.	Typing in word document successfully using the latest 2016 Microsoft word package installed in Windows 2010	68	51	189	171	2.03	1.01	Not Proficient
14.	Using the latest 2016 Microsoft Excel or Spreadsheet package installed in Windows 2010 to perform both financial and arithmetical activities	92	109	98	180	2.24	1.15	Not Proficient
15.	Delivering presentations with the newest 2016 PowerPoint package installed in Windows 2010	57	87	156	179	2.05	1.01	Not Proficient
16.	Successfully using the newest SPSS version to compute research raw scores through various statistics	94	105	176	104	2.39	1.03	Not Proficient
17.	Using the latest 3D graphic design package to prepare lectures	69	83	170	157	2.13	1.03	Not Proficient
18.	Using the newest 2016 CorelDraw package installed in Windows 2010 to create designs, illustrations and drawings into documents	54	97	115	213	1.98	1.05	Not Proficient
19.	Using other Microsoft Office Suite such as Microsoft OneNote, Microsoft outlook, Microsoft publisher, Microsoft Access, among others in order to perform any educational task	61	52	188	178	1.99	0.99	Not Proficient
20.	Installing a software printer into a computer system coupled with the ability to print any document out through Microsoft Office Suite application	59	84	146	190	2.03	1.03	Not Proficient
21.	Successfully delivering instructions with various software like virtual reality and artificial intelligence	67	80	131	201	2.03	1.07	Not Proficient
	Overall Mean Score =					**2.10**	**1.05**	

Table 2: Mean Scores and SD Ratings of Academic Staff concerning their Proficiency towards Utilization of Emerging Software Technologies for their Job Performance in Universities in in Anambra State N = 479

Analysis of data in Table 2 revealed none of the items from 13 to 21 was rated above 2.50 of the accepted mean score by the academic staff in order to show that they agreed with any of these statements. All the items from 13 to 21 were rated below 2.50 of the accepted mean score by the academic staff in order to show that they disagreed with all these statements. The overall mean score and standard deviation (SD) of 2.10 and 1.05 determined closeness in the mean responses of the academic staff. Therefore, this result indicates that the academic staff were not proficient towards utilization of emerging software technologies for their job performance in universities in Anambra State.

RESEARCH QUESTION 3. How proficient are academic staff towards the utilization of emerging social media technologies for their job performance in universities in Anambra State?

S/N	Please indicate your proficiency in utilizing the under listed emerging social media technologies. Proficiency in:	HP	P	FP	NP	X	SD	Decision
22.	Posting and delivering lectures through WhatsApp on smart mobile phones	133	211	67	68	2.85	0.98	Proficient
23.	Using YouTube to post videos including other materials and presentation in order to support lectures in the classroom	62	70	199	148	2.10	0.98	Not Proficient
24.	Using Zoom for videoconferencing in order to reach out to students at their different locations	86	108	153	132	2.31	1.06	Not Proficient
25.	Using Twitter to send relevant information to students relating to their education	51	77	127	224	1.91	1.02	Not Proficient
26.	Operating the Facebook to post assignment and lecture notes to students	63	58	173	185	2.00	1.02	Not Proficient
27.	Successfully using Instagram to discuss important educational matters	50	61	235	133	2.06	0.91	Not Proficient
28.	Using Skype to organize classroom group forums in order to discuss educational matters	54	78	226	121	2.14	0.92	Not Proficient
29.	Using other social networks, forums or blogs such as blogger, Dropbox, LinkedIn, Myspace, Wiki, etc to organize and conduct educational activities or render academic services	85	49	126	219	2.00	1.13	Not Proficient
	Overall Mean Score =					**2.17**	**1.04**	

Table 3: Mean Scores and SD Ratings of Academic Staff concerning their Proficiency towards Utilization of Emerging Social Media Technologies for their Job Performance in Universities in in Anambra State N=479

Analysis of data in Table 3 revealed all the only item 22 was rated above 2.50 of the accepted mean score by the

academic staff in order to show that they agreed with all these statements. All the other items from 23 to 29 were rated below 2.50 of the accepted mean score by the academic staff in order to show that they disagreed with all these statements. The overall mean score and standard deviation (SD) of 2.17 and 1.04 determined closeness in the mean responses of the academic staff. Therefore, this result indicates that the academic staff were not proficient towards utilization of emerging social media technologies for their job performance in universities in Anambra State.

Research Question 4. How proficient are academic staff towards utilization of emerging Google App technologies for their job performance in universities in Anambra State

S/N	Please indicate your proficiency in utilizing the under listed emerging Google App technologies. Proficiency in:	HP	P	FP	NP	X	SD	Decision
30.	Organizing classroom presentations or forums through google classroom	53	54	135	237	1.84	1.01	Not Proficient
31.	Organizing classroom forums through google meet platforms	62	70	189	158	2.08	0.99	Not Proficient
32.	Creating discussion groups using google hangouts	56	58	159	206	1.92	1.01	Not Proficient
33.	Conducting students assessments or assignments using google forms	81	47	223	128	2.17	1.01	Not Proficient
34.	Saving important documents, files including educational information using google drive	70	52	188	169	2.05	1.02	Not Proficient
35.	Supervising including reading students projects and assignments using google mail (Gmail)	59	79	134	207	1.98	1.04	Not Proficient
36.	Using google chats to send and relate important information to students after lectures on educational matters concerning their grades and academic progress	64	61	130	224	1.93	1.06	Not Proficient
37.	Using google calendar to organize and schedule academic events with students	83	48	193	155	2.12	1.05	Not Proficient
	Overall Mean Score =					**2.01**	**1.03**	**Not Proficient**

Table 4: Mean Scores and SD Ratings of Academic Staff concerning their Proficiency towards Utilization of Emerging Google App Technologies for their Job Performance in Universities in in Anambra State N = 479

Analysis of data in Table 4 revealed none of the items from 30 to 37 was rated above 2.50 of the accepted mean score by the academic staff in order to show that they agreed with any of these statements. But rather all the items from 30 to 37 were rated below 2.50 of the accepted mean score by the academic staff in order to show that they disagreed with all these statements. The overall mean score and standard deviation (SD) of 2.01 and 1.03 determined closeness in the mean responses of the academic staff. Therefore, this result indicates that the academic staff were not proficient towards utilization of emerging Google App technologies for their job performance in universities in Anambra State.

V. DISCUSSION OF FINDINGS

The findings of this present study generally revealed that many of the academic staff were not proficient towards utilizing majority of the emerging hardware, software, social media and google app technologies for their job performance in universities in Anambra State. It was discovered through one of the findings that academic staff of the universities were not proficient in utilizing the emerging hardware technologies for their job performance. Although it was discovered through this finding indicated that academic staff of the universities were only proficient in utilizing few of these emerging hardware technologies for their job performance. This included that academic staff of the universities were only proficient in such areas as in: operating the newest smart mobile phones; turning on, typing on the keyboard and shutting down their personal laptops; and in teaching effectively with modern microphones inside the lecture halls or rooms. This finding corroborates with the finding of Darko-Adjei (2019) study which revealed that the distance learning students found it easier to use a smartphone in their learning activities. The findings also revealed that the use of smartphones performed remarkable roles among the distance learning students of the University of Ghana in their academic activities. Sarfo, Amankwah, Oti-Agyen and Yidana (2016) study on ICT access and use and competency level among second-cycle school teachers in Ghana also confirmed that majority of the respondents used mobile phones (89%) and e-mail for social communication (80). It was further discovered that most of the respondents possessed high competence level in ICT applications.

The finding further indicated that academic staff of the universities were not proficient in utilizing majority of the emerging hardware technologies for their job performance. This included that academic staff of the universities were not proficient in other areas such as in: using any desktop computer connected together with monitors, keyboards, mouse, microphones, speakers and cameras to perform task; saving documents in latest computer storage device such as flash drive, CD-ROM, external hard drive; printing documents with 3D printers; scanning documents using latest scanners; sending documents using newest fax machines; duplicating documents using newest duplicating machines; inserting the modem to any computer system together with operating it to carry out any online activity; using new digital cameras to carry out research work; and operating the newest projectors for presentations in lecture rooms. The above finding agrees and corroborates with Wanjala (2013) study on teachers' perceptions on the use of information communication technology in the administration of public secondary schools in Kimilili District, Bungoma County, Kenya which found out that although the teachers were very enthusiastic and positive about using ICT in administration; however, teachers were not well equipped with relevant ICT skills for use in administration. Despite the high level of inadequacy of ICT facilities, teachers were generally happy and appreciated ICT in view of the gains such as making work faster and easier. The finding also revealed that teachers perceived that using computers reduced time wastage, enhanced their job performance and job satisfaction. They perceived the

registration of KCSE candidates using computers and internet as very essential in administration of secondary schools. The present study finding also correspondence with Omehia, Okwu and Nsirim (2021) study on librarians' ICT competencies and utilization of emerging technologies in academic libraries in Rivers State, Nigeria which found out that the use of ICTs by Librarians for library and information products and services were minimal and that there is a significant relationship between ICT competencies of Librarians and utilization of emerging technologies in academic libraries in Rivers State. Although the Librarians were not proficient in their ICT competencies so as to perform their work effectively.

The finding of this study also discovered that the academic staff were not proficient towards utilization of emerging software technologies for their job performance in universities in Anambra State. Majority of these university academic staff were not proficient utilizing these software technologies in: typing in word document successfully using the latest 2016 Microsoft word package installed in Windows 2010; using the latest 2016 Microsoft Excel or Spreadsheet package installed in Windows 2010 to perform both financial and arithmetical activities; delivering presentations with the newest 2016 PowerPoint package installed in Windows 2010; successfully using the newest SPSS version to compute research raw scores through various statistics; using the latest 3D graphic design package to prepare lectures; using the newest 2016 CorelDraw package installed in Windows 2010 to create designs, illustrations and drawings into documents; using other Microsoft Office Suite such as Microsoft OneNote, Microsoft outlook, Microsoft publisher, Microsoft Access, among others, in order to perform any educational task; installing a software printer into a computer system coupled with the ability to print any document out through Microsoft Office Suite application; and successfully delivering instructions with various software like virtual reality and artificial intelligence. This is in line and does not deviate with Ojiegbe (2010) study on ICT competencies of library staff in the University of Abuja, FCT and University of Jos, Plateau State revealed that most of the library staff in university libraries performed only Microsoft word based tasks like typing and printing of documents and could provide online searches using the internet but could not perform effective professional library related duties using most of the ICT software technologies. It was therefore, stressed that staff needed ICT competencies in the areas that can assist them handle professional related duties, like internet skills, mastery of library software and technical skills. Finding of Nkamnebe, Okeke, Udem and Nkamnebe (2015) study on extent of information and communication technology skills possessed by librarians in university libraries in Anambra State, Nigeria, discovered that the librarians were highly-skilled in basic computing, word processing, and file management and were moderately-skilled in information search and retrieval, Internet and World Wide Web. They were weakly-skilled in library automation, e-mail operations, and were not skilled in automated cataloguing and classification/use of OPAC, presentation using Microsoft PowerPoint, Database creation/management.

It was further found out that the academic staff were not proficient towards utilization of emerging social media technologies for their job performance in universities in Anambra State. Although part of this finding indicated that the academic staff were only proficient in posting and delivering lectures through the WhatsApp on smart mobile phones. Here, the academic staff showcased that they utilized the social media for only social activities not to perform educational activities, task and functions. This finding agrees with the findings of Mkpa (2020) study which revealed that junior secondary school teachers were more familiar with Facebook, WhatsApp, twitter, and YouTube, among other social media networks to a high extent. The study also showed that teachers had positive perception about social media impact in education, though they do not use the media for educational purpose, rather, they employed the social media account to connect with and chart with friends, for sending private messages, uploading photos, online profiles, watching movies, communicating and interacting with friends. Gender difference was not significance among teachers in terms of perception and using social media in education. Nwoke, Ikwuanusi and Onuoha (2020) study on educators' competence and utilization of social media in science teacher education discovered that the educators were competent on the use of social media for personal purposes. Social media platforms were not utilized for academic purposes in the training of trainee teachers. Furthermore, the finding discovered that the academic staff were not proficient towards utilizing the social media technologies in such aspects as: using YouTube to post videos including other materials and presentation in order to support lectures in the classroom; using Zoom for videoconferencing in order to reach out to students at their different locations; using Twitter to send relevant information to students relating to their education; operating the Facebook to post assignment and lecture notes to students; successfully using Instagram to discuss important educational matters; using Skype to organize classroom group forums in order to discuss educational matters; and using other social networks, forums or blogs such as blogger, Dropbox, LinkedIn, Myspace, Wiki, etc to organize and conduct educational activities or render academic services. This finding concurs with Eze, Chinedu-Eze and Bello (2018) study which found out that although there are quite a number of e-learning facilities available in most private Universities compared to public universities (as indicated by the lecturers), the usage of e-learning facilities in private universities is still on the average. This is as a result of lack of technical know-how and the attitudes of the staff which reveal the low level of usage of ICT equipment and facilities in schools today. The finding showed that 89% of participants agree that there were sufficient e-learning facilities for use; the facilities were user friendly and they facilitate help to significantly improve learning. However, 72% of the participants indicated that the attitudes of users, inadequate Internet facility and inadequate training were major inhibitors to e-learning. The implication is that the University should regularly conduct training especially when new faculty are employed to ensure that they adapt and use them. Furthermore, there should be some kind of weekly monitoring to ensure that lecturers use them in classes at all times. The present study finding also agrees with

Kayode, Irele, Agunbiade and George-Kayode (2019) study on ICT for effectiveness and job performance of staff in the universities in Nigeria which revealed that secretarial staff must be conversant with the modern use of ICT tools such as Wi-Fi, Internet technologies, among others, in order to improve their competence in the performance of their job. It is also important for the secretarial staff to be up to date in this globalized world to know the use of ICT for effective performance of their job. And this applies to the two universities that have been researched. Abubakar and Salmanu (2018) study confirmed that there was a great challenge by teachers in using internet. Most of them did not have the knowledge of computer and Internet. A part from the fact that teachers in Kaduna State Central Senatorial Zone were not computer literate they were also fund not making effort at having ICT skill that would boost their job performance after majority of them agreed that computer would boost their academic performance.

Finally, the finding of this study indicated that the academic staff were not proficient towards utilization of emerging Google App technologies for their job performance in universities in Anambra State. This finding included that the academic staff were not proficient towards utilizing the Google Apps such as in: organizing classroom presentations or forums through google classroom; organizing classroom forums through google meet platforms; creating discussion groups using google hangouts; conducting students' assessments or assignments using google forms; saving important documents, files including educational information using google drive; supervising including reading students projects and assignments using google mail (Gmail); using google chats to send and relate important information to students after lectures on educational matters concerning their grades and academic progress; and using google calendar to organize and schedule academic events with students. This finding is in line and corroborates with Alimi (2017) on lecturers' awareness of, access to and competency in the use of google apps for education in Nigerian universities found out that lecturers were generally not competent in the use of GAfE (Google Apps for Education) as the observed grand mean of 1.96 was lower than the benchmark score of 2.50. Ekpoh and Etor (2012) study found out that the level of ICT competence among academic staff was low and the extent of academic staff utilization of ICT in knowledge creation activities was significantly low. Iftakhar (2016) found out that although Google Classroom offered different features, but most of the teachers were not proficient using them. Consequently, students remain unaware about the effectiveness of Google Classroom. The study of Bordbar (2010) supports this finding. Bordbar confirmed that when a teacher lacks knowledge and skill about technology, she or he reports negative or neutral attitude. They accepted the of use Google Classroom for professional development but their adaptation in teaching was very low. This study found that most of the teachers prefer to use Learning Feedback System. The present study finding concurs with Anyoku (2012) on computer skills of librarians in Nigeria which found out that some percentage of librarians still rated themselves as deficient in vital areas of computer skills. Ansari (2013) study on ICT skills proficiency of library professionals in universities in Karachi, Pakistan which found out that the library professionals in universities in Karachi, Pakistan were not equally proficient in all areas of ICT skills. The majority are moderately proficient. The finding of the study does not agree with Ademodi and Adepoju (2019) study on possession of computer skills and competencies in the use of computer which found out that 87.5% of librarians were computer literate. They also found that the most commonly reported skill was to navigate and explore the internet.

VI. CONCLUSION

The benefits of utilizing emerging technologies to promote academic staff job performance in the universities cannot be overemphasized. For the Nigerian universities including those in Anambra State to compete with international standards as well as to provide excellence services that will enable quality education to triumph in the system, this requires that their teaching becomes highly technologically-based through adoption and utilization of emerging technologies which should heavily supported by the academic staff proficiency. But the present study submits and concludes that many of the academic staff were not proficient towards utilizing majority of the emerging hardware, software, social media and google app technologies for their job performance in universities in Anambra State. This situation calls for absolute redress and now is the right time to get things rightly done in the universities in order to promote academic staff proficiency towards utilization of the emerging technologies for excellent job performances and positive outcomes.

VII. RECOMMENDATIONS

Based on the findings, the following recommendations were made;

- ✓ The University management should adequately provide most of the emerging hardware technologies such as desktop computer connected together with monitors, keyboards, mouse, microphones, speakers and cameras, latest computer storage device, scanners, 3D printers, among others, so as to improve academic staff proficiency towards the utilization of these technologies for their job performance in universities in Anambra State.
- ✓ The University management should upgrade the computer systems in their laboratories and provide most of the emerging software technologies such as latest 2016 Microsoft word package, Excel or Spreadsheet, 3D graphic design, SPSS package, among others, so as to improve academic staff proficiency towards the utilization of these technologies for their job performance in universities in Anambra State. Also, academic staff should be financially sponsored by the University management in order to engage in basic computer and e-learning training programmes that will improve their proficiency towards utilization of the software packages for their job performance in universities in Anambra State.

- ✓ The use of blended teaching and learning through various social media technologies should be highly encouraged and well-implemented in order to improve academic staff proficiency towards utilizing various social media technologies such as Zoom, Skype, Facebook, blogger, Dropbox, LinkedIn, Myspace, Wiki, among others, for their job performance in universities in Anambra State.
- ✓ The University management should provide adequate accessible Internet network and regularly organize constant ICT and e-learning training programmes on the use of Google App technologies in such areas as Google classroom, Google meet, hangouts, Google forms, among others, for academic staff effective job performance in universities in Anambra State.

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