



Teachers' Qualification and Digital Classroom: Implication for Effective Teaching and Learning Process in Southsouth, Nigeria.

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Abstract

Over the years, the Federal government through the ministry of education has been encouraging the use of technology in teaching and learning process. This is evident in the procurement of laptops for teachers to be able to apply technology in many states. Many technology driven projects intended to equip schools with computers and communication techniques have also been embarked on in many states. Since students learn by doing, researching, and receiving feedback, technology helps them to become passionate about what they learn. With the present global challenge posed by COVID 19, this is the appropriate time to equip schools with technology devices. This paper therefore examined the influence of teachers' qualification on digital classroom and its implication for effective teaching and learning. Descriptive survey type of research design was adopted with all the public secondary school teachers in Southsouth states, Nigeria as the population. The sample consisted of 724 randomly selected secondary school teachers. A self-designed questionnaire titled 'Teachers' Qualification and Digital Classroom in Public Secondary Schools Questionnaire (TQDCPSSQ)' was used for data collection. The instrument was validated and tested for reliability which yielded 0.85 coefficient value. Data collected were inferentially analysed with ANOVA at 0.05 level of significance. The result revealed that teachers' qualification has no significant influence on the use of digital classroom. Based on the finding, it was recommended that government should provide digital devices for schools and train teachers to acquire skills on the use of technology devices to enhance effective teaching and learning.

Keywords: Teachers' qualification, Digital classroom, Teaching and learning process, Technology devices, Secondary schools.

Introduction

Innovation in educational system through the introduction of technology has given rise to new educational needs as well as teaching strategies, which contemporary teachers in Nigeria must not ignore. There is need to embrace

and guard it jealously. The duty of a teacher is to teach and impart knowledge. This has to be done to meet the digital and academic knowledge demand of the 21st century classroom. School classrooms of the 21st century need to be digitally equipped so as to



enable students to become more active and independent with the teacher serving as a consultant. For instance students can be taught by their teachers how to visit appropriate websites using appropriate search engines to search through the internet, exchange information, send and receive e-mail. A teacher who is technology compliant can use this medium to channel the students' curiosity to appropriate websites where they can search for educational resources available. It is expected of teachers to share information with the students and encourage submission of assignments through e-mail and also create exciting learning environment for them. This will motivate the students to enjoy the educational benefits of technology resources hence students' academic success depends on skilled, highly motivated teachers whether in traditional or digital classroom.

No nation can rise above the quality of her teachers hence it all depends on the ability of teachers to appropriately utilise technology devices to facilitate learning. Nigeria as a developing nation needs technology devices to aid teaching and learning in schools so as to meet up with the technological needs of the 21st century classroom. Aduwa-Ogiegbaen and Iyamu (2005) posit that computer is not part of classroom technology in more than 90% of Nigeria public schools and that the chalkboard and textbook still dominated teaching and learning processes hence the plan was never actualised.

The notion of learning with technology implies the development of an intellectual partnership where teachers, learners and the computer interface to achieve learning goals. How can a teacher who does not have an e-mail address give out assignments to students through the e-mail? If teachers are ignorant of how to use computer to browse, they will not be able to guide their students either. If the teachers are unwilling to adapt to new trends of teaching with technology this development will not take place. Teaching and learning process is a progression which passes through many stages. Gagne (2010) refers to these stages as 'Events of Instruction'. His research reveals that well-designed lessons begin with the arousal of students' interest and then moves on to present new material, involve students in practice, assess their understanding and go on to follow up activities. The role of the teacher in this regard is very crucial in that learning is enhanced through careful manipulation of technologies with the learners as active participants (Higgins and Maseley, 2001). This contradicts most of the materials used to educate students which are largely text and lecture based with significant limitations in the conventional classroom. It is the duty of the teacher to provide exciting and conducive learning environment for students' learning in order to produce desired results and allow the students share ideas across the globe without any cultural barrier and still feel part of the action. This will create room for group collaborative work using such learning facilities as Technology devices.



Observation has shown that the importance of technology resources utilisation in Southsouth States secondary schools is no longer an issue to be contended with but how teachers and students can ensure their continuous derivation of the innovation in teaching and learning process. Resnick (2002) opines that school classrooms need to be reorganised so that students can become more active and independent with the teachers serving as facilitator. The importance of technology in education and nation building has made it imperative for teachers to employ the facilities in teaching and learning. Observation has shown that many teachers in the state have no idea about ICT application to teaching except in some private schools and Federal Government colleges and few of the state model schools. If the facilities are not there for the use of the teachers, the issue of utilization will not arise.

The National Policy on Education [FRN, 2004] created guidelines for teaching with technology. Digital classroom instruction will require those same foundations along with technology and support systems to create an engaging, productive environment conducive to effective E-learning. Technology is one of the most important basic skills needed for life and work today in this digital age. Digital classroom consists of all forms of electronically supported learning and teaching. Teachers must be trained and be qualified to fulfill their roles in effectively using electronic devices.

Integrating technology into the classroom begins with the teachers preparing lessons that use technology in authentic and meaningful situations (Mashhadi & Kargozari 2011).

Although technology cannot replace the human mind but it can intensify it and increase the pace of learning therefore teachers have a vital role to play in its integration. Creating an efficient and effective digital classroom requires teachers to develop exceptional and communication skills. Teachers need all the skills required to develop lessons plans for classroom instruction and must be able to apply them to digital teaching environments. They must develop skills to use graphics, videos and digital audio files to communicate with learners. They have to also possess skills and knowledge specific to web-based educational systems. New technology is significantly increasing the need to read, write and use numbers confidently and effectively. Before long, those who cannot use a computer and access the internet may be as disadvantaged as those who are unable to read and write. Those who cannot use technology may become a misfit in the society in no distant time because they may not be able to access information. It is therefore imperative for teachers to improve themselves in the use of technology. Teachers should be able to demonstrate proficiency in:

- i. knowledge accessing requirements for technology in digital classroom
- ii. ability to evaluate internet resources before use



iii. ability to develop sufficient skills in an engaging curriculum that motivates and encourage students to participate fully. Teachers must develop skills to help students to be fully engaged according to their individual abilities.

Digital students use laptops and tablets in the classrooms. They do not like to bring books and notebooks to classroom again; instead prefer digital tools on their devices to study hence Dutch teachers are said to use 'Nearpod Software' which allows students to follow the instruction on their own device to avoid distractions. The teacher can employ methods like interactive quizzes to engage students individually and ensure their attention is attracted.

Technology in the Classroom

Nigeria as a developing nation needs technology to aid teaching and learning in schools so as to meet up with the technological development of the 21st century. Aduwa-Ogiegbaen and Iyamu (2005) posit that computer is not part of classroom technology in more than 90% of Nigeria public schools and that the chalkboard and textbook still dominated teaching and learning processes hence the plan was never actualised. The notion of learning with technology implies the development of an intellectual partnership where teachers, learners and the computer interface to achieve learning goals. A cursory look at the classrooms in the Southsouth show that some of the teachers still rely on the traditional method. The implication is that students are being

denied the benefits of gaining from the trend of development in education through the use of technology. Classroom teachers with technology literacy will assist students to perform better academically due to the fact that it arrests students' attention span and improves their reading culture. Teacher must provide exciting and conducive learning environment for students in order to produce desired results and allow them share ideas across the globe without any cultural barrier and still feel part of the action. This will create room for group collaborative work using learning facilities as technology tools.

According to Okoh (2011), Educational Associations are advocating for a more meaningful use of technology in schools and integration of computer skills in the content areas. For the integration of computer to be realisable, the teacher needs some skills hence the need for training and retraining of teachers in the use of technology devices. Organisation for Economic Corporation and Development (OECD, 2001) corroborates this by stating that the focus on technology is becoming a pre-requisite for participation in society and employment. Therefore technology competency is seen as an essential life skill and basis for maintaining employability throughout life.

Technology recognizes vital role education plays in human capacity building and development which begins in a classroom fully equipped



with technology devices. The introduction of computer education in secondary schools in Nigeria is traced to 1988 when computer education policy was enacted which led to the commissioning of Mobile Internet Unit (MIU) to adequately equip secondary schools with technology resources and to be implemented by the National Information and Technology Development Agency (NITDA). Mobile Internet Unit was a bus that was converted into a local mobile training and cybercafé centre. Its interior had ten work stations, all networked and connected to the internet, equipped with printers, photocopiers, and a number of multimedia facilities. The MIU went to various secondary schools to train and retrain both teachers and students in use of internet (NITDA, 2003).

Tomorrow can only be decided by the quality of teachers and education a nation has. Education is the most important in the life of any nation. Training institution need to be well equipped to meet the demand of the 21st century labour market which can only be attained through a formidable team of qualified work force. There is no doubt that students of today are digital literate while today teachers are struggling to boot a computer. Teachers can help students realize their full academic potential through the effective use of technology. Technology skills are vital to enabling teachers and students to leverage the full potentials of facilities. Both teachers and students in today digital world increasingly tap into networks of

global information. Digital literacy is critical to broadening opportunity and removing barriers to digital inclusion. Digital literacy is vital to enabling teachers and students unlock the full potentials of technology unfortunately, in many schools, few teachers have the skills to utilize technology.

If a good number of secondary school teachers are technology compliant, some of the problems teachers encounter in teaching, computation of results and students' failure would be reduced to barest minimum. The NPE (2004) states that educational activities should be learner-centred for maximum self-development and fulfilment and the educational system shall be structured to develop the practice of self-learning. Digital classroom takes of this. It is high time knowledge driven 21st century society teachers move from 'learning to use technology to using technology to learn.' Mere having Technology in schools will not guarantee their effective use.

Teachers' Qualification and Digital Classroom

Teachers' awareness of Technology policy forms the backbone of its utilisation and consequently improved productivity of teachers and students. Many schools are believed to have failed to implement the policy due to an embedded cultural resistance to new technologies (Oluwatayo 2010). The right awareness and qualifications of teachers will form a forum to develop their technology skills. In order to



create awareness of technology resources utilisation among teachers, the States in the Southsouth according to (UBEC 2010) Profile trained and retrained a total number of 2,324 junior secondary school teachers in computer literacy. The teachers are believed to have acquired some skills and proficiency in the use of technology resources. The ability to retrieve and use information in form of electronic text, sound, graphics and video is fast becoming an essential skill, so teachers need to be conversant with the technical know-how of the use of technological devices. Individual teachers need specific skills to deal with specific classroom situation. There is the belief that a single teacher is not capable of giving up-to-date and complete information about his subject.

Teachers' qualification cannot be ruled out in the utilisation of Technology in the teaching and learning process. If the teachers do not have basic qualification and are not well informed in the use and importance of media in instructional delivery, they are not likely to have the incentive to use them. For this reason, the quality of an educational system should be parallel to the quality of teachers trained. Technological skills of teachers are important dimensions of this quality. Jenni and Beardon in Jenni and Toni (2009), opine that teachers require computer literacy skills to be able to use ICT effectively in teaching. They believe graphic calculators used in teaching shapes and graphs demand teacher skill. Graphic calculators allow

each student to have a simple minicomputer at his own desk without going to the computer laboratory. The screen on the graphic calculator can easily be shown to the whole class using overhead projector and a view screen. The use of spreadsheet for mathematics teaching and planning classroom activities using internet connection also demands teacher's computer skills. Though they are tools for Accountants but they can be adapted in a variety of ways for use in mathematics classroom. Any teacher who wants to apply ICT in teaching students must have some level of computer literacy. For example there are some mobile applications specially designed to meet the needs of Nigerian students preparing for external examinations.

Computer literacy of teachers is the ability of the teacher to use computer and to do some work on it. Unless teachers function at a comfortable level of technology skill and knowledge they will be unable to use technology as a primary tool for teaching and learning across the curriculum. If teachers perceive themselves to be technologically incompetent and feel deskilled, when they use computers in the classroom, the vision 2020 (MDG) will not be realized. As agents of change, teachers need to employ a wide range of technological devices and software as part of their instructional repertoire to realize this vision. Teachers who show skills in the knowledge creation approach will be able to design technology-based learning resources



and environment. They will be able to use technology to support the development of knowledge creation and critical thinking skills of students. The role of the teacher in this regard is very crucial in that learning is enhanced through careful manipulation of technologies with the students acting as active participants

Delta state government for instance through the Federal government policy statement procured and introduced Computer Literacy and Appreciation Programme in July 2010. HP Flat Screen, Desktop computers and accessories including generators to power them hence the Commissioner of the then Directorate of Science and Technology remarked, 'this programme is coming at a period when the State is on the threshold of imbibing and implementing the tenets and derived benefits of science and technology as a veritable tool for development and progress...' (Guardian News Paper, 2014)

Recent publications by educational associations are advocating for a more meaningful use of technology in classroom and integration of computer skills in the content areas. For the integration of computer to be realisable, the teacher needs some skills hence the need for training and retraining of teachers in the use of devices. Organisation for Economic Corporation and Development (OECD, 2001) corroborates this by stating that the focus on ICT is becoming a pre-requisite for participation in society and

employment. Therefore technology competency is seen as an essential life skill and basis for maintaining employability throughout life.

Jegede and Seweje (2003) advocate for a more meaningful use of technology in schools to improve traditional method of teaching which does not carry slow learners along. Students' varied interests and habits of inquiry conflict with teacher-centred instruction which is believed to have often resulted in indiscipline among learners in the classroom. This has therefore made it imperative for teachers to employ array of technology in instructional delivery hence the Ministry of Education, Department of Learning Nigeria Government Initiatives indicated that teachers must move swiftly to more internet and web based teaching. In Angeli and Valannides (2009), research shows that in spite of the many efforts that researchers and educators put over the years in preparing teachers in the educational uses of technology, teachers still lack the skills and knowledge needed to be able to teach with technology successfully. This lack was attributed to inadequate preparation of teachers to teach with technology.

In every profession, there are certain competencies needed by individuals to perform certain tasks effectively. The biology teacher possesses competencies in setting up an experiment laboratory for students and for accurate observation and reporting of results. On the 25th of February



2014, the governor of Edo state told the Royal Fathers, and the entire people of Edo state during the Education Summit that he was going to subject the teachers in the state to competency test. He stated that failing the test means the teacher is not capable of teaching that particular subject and as such teachers would be sacked. He was supported by all. In the same vein any teacher who wants to use Technology resources must be skilful in the use of the tools. Teachers must know the best and appropriate resources like slides, PowerPoint presentation, games, simulations, animation, discovery methods and equipment with which to teach the students in a digital classroom. Teachers can effectively use ICT tools if they understand some underlying concepts about the learning process and instruction (Heinich et al, 1996).

Angeli and Valannides in Temechegn (2011) believe that 'the field of Educational Technology has shown that in spite of the many efforts that researchers and educators put in over the years in preparing teachers in the educational uses of technology, teachers still lack the skills and knowledge needed to be able to teach with technology successfully.' This was the reason they attributed to UNESCO IICBA's stress on the need for ICT-enhanced teacher development in the 21st century Africa. Osakwe (2012) observes that in secondary schools, there is a lack of qualified personnel to manage available systems and develop and use information communication

technology facilities for the teaching-learning process.

Technology and Digital Classroom

Research reveals that teachers agree that the use of technology will definitely provide lots of opportunities for an effective teaching. Contemporary e-learning environments are loaded with very powerful digital models and devices particularly the internet, which has revolutionized the way people interact, exchange messages, teach and learn. Software packages are developed for the sole purpose of supporting instruction and learning. These packages can be used for drill and practice, simulation, instructional games, tutorials and problem solving. The role of the teacher in using software package is to analyse it carefully to determine which instructional function it serves so as to ensure it supports their specific teaching needs. Resnick (2002) claims that school classrooms of the 21st century need to be reorganized so that students can become more active and independent with the teacher serving as a consultant. For instance students can be taught by their teachers how to browse appropriate sites using appropriate search engines. Through the use of internet, students and teachers can search for and exchange information, send and receive e-mail.

A teacher who is ICT compliant can use this medium to channel the students' attention to appropriate websites where they can search for examination questions and make them



available for students. Adeosun (1998, 2002) also believes a lot of benefits can be derived from the use of technology. He further opines that technology makes learning fun and the 'whole world is brought to the classroom' It is expected of teachers to share information with the students and encourage the submission of assignments e-mail and also create exciting learning environment for the students. According to Gagne, Wagner and Rojas (1981), drills, tutorials and simulations suggest a way to look at software that can help educators analyse a given product with respect to its instructional functions and design appropriate integration strategies that make use of these functions. Drill and practice software can serve several classroom needs. It helps motivate learners and to receive feedback. Talking about the benefits of problem solving software, Todd and Wiehmann in Roblyer and Doering (2013) in their research discover that 'combining computer algebra system software with symbolic geometry system software facilitate the work involved in complex problem solving as a whole'.

William (1977) in Roblyer and Doering (2013) says 'education would be more efficient if computers took over the traditional role of teachers', while Roblyer and Doering (2013), believe software empowers teachers rather than replacing them. Lemke in Patel (2011) is said to have predicted that 'very soon all the libraries of the world will be one virtual library, all the databases on every subject will be

available through a common interface and they will contain not just numbers and texts but every visual and auditory form of information'

Technological advancement provides an environment in which students and teachers can function as both learners and facilitators of learning. For example a teacher can write on a touch-screen symposium and whatever he writes appears on an interactive whiteboard in front of the class and in each of the desktop computers or laptops on the students' desks. Also with a document camera system, a page in a recommended-text used by the teacher can be seen by the class on the interactive whiteboard. The viewed page can be cut, rotated, labelled as the teacher needs for teaching purposes. With the aid of a visualization system, a piece of equipment, tool, biological specimen used in teaching can be viewed on the interactive whiteboard by the class. With ICT, fabrication and production can be navigated from within the classroom to visually strengthen technical skills and competencies of students. Animation can be used to explain difficult concepts and demonstrate difficult processes (Swarts and Wachira 2010). It can also be used to promote collaborative learning like role playing, group problem solving activities and team work. The researcher believes this will motivate the students to enjoy the educational benefits of using technology. This depends mainly on the teachers and the available devices. According to Jegede (2009), basic



software and keyboard skills are the most emphasized for a classroom teacher who wishes to employ ICT in teaching. This is in cases where there are enough machines for hands on experience. Computer competency depends on how much knowledge is required and which applications they would be able required to use. A teacher's level of competence, the ICT capacity of their school, their attitudes and motivation will definitely enhance teachers' integration of ICT in the Classroom. The purpose of teaching is primarily to assist the learner acquire the type of knowledge and skill that will produce the desirable change in him. This can be actualized if the teaching and learning process provides the enabling environment for the learner to think critically, analytically and consequently be an agent of change.

Regardless of the quantity and quality of technology placed in classrooms, the key to how those tools are used is the teacher therefore teachers must have the competence. For a teacher to be able to engage students in meaningful and relevant learning, teachers must have a comfortable level of ICT skills, must acquire the basic skills in ICT management. Unless teachers function at a comfortable level of ICT skills and knowledge, they will be unable to use ICT as a primary tool for teaching -learning across the curriculum. For instance, a teacher who is computer literate or competent should be able to use a word processor, download, e-mail software, search the internet with proficiency and not be too

alarmed when asked to use what may at first appear to be an entirely new programme. Transferable skills are inevitable and paramount in teaching and learning Technology.

Teachers need to be skilled in the use of Technology and also to be able to critically evaluate strategies for the acquisition and the appropriate application of ICT in diverse curriculum areas. Major ICT competencies required by teachers were highlighted to include competency in making personal use of Technology; mastery of a range of educational paradigms that make use of Technology; competency in making use of Technology as minds tools; competency in using Technology as tools for teaching, competency in mastering a range of assessment paradigms which involves use of Technology; and competency in understanding the policy dimensions of the use of Technology for teaching and learning. The need to facilitate the direct use of Technology in students' e-learning classroom situation; and the need for teachers to develop in their students a critical awareness of Technology applications and the social implications. Similarly, Marija and Palmira (2007) classified Technology competencies into two: basic and educational Technology competence.

These competences are further elaborated in the Technology competency standards for teachers developed by the United Nations Educational, Scientific and Cultural Organization (UNESCO, 2002a,



2003b). Based on these documents, the information and communication technology competency is more comprehensive than mere focus on Technology skills. Rather, it is a comprehensive approach to education reform in six broad areas of policy, curriculum and assessment, pedagogy, the use of technology, school organization and administration, and teacher professional development. The UNESCO (2002a, 2003b) standards for teachers are meant to improve teachers' practice in using Technology as an innovative way for teaching, collaborating with colleagues, and for school organization.

Statement of the Problem

One of the major problems confronting the educational system in Nigeria as observed today is the inability of teachers to use modern technology for instructional delivery as stated in the National Policy on Education. The policy on ICT has been developed aimed at empowering the youth with Technology skills to prepare them for global competitiveness and to enhance capacity building in secondary schools. One has to ensure that right personnel are employed to teach and they are teaching well with the right technology devices. Observation has shown that many of the teachers are outdated in their skills because they are analogue teachers despite their training. Abdul-Salaam, (2007) observes that over 49,524 pupils and 2,412 teachers were trained on how to use ICT facilities. The students of today are on the internet while teachers are struggling to send a text message

yet teachers are said to be trained and retrained to meet the technology challenges of today. The paper therefore examined the influence of teachers' qualifications and digital classroom and its implication for teaching and learning process.

Purpose of the Study

The purpose of the study was to examine teachers' qualifications and digital classroom; implication for teaching and learning process in public secondary schools in Southsouth States, Nigeria.

Research Hypothesis

This hypothesis was generated for the study:

Teachers' qualification will not significantly influence teaching with technology devices in digital classroom in public secondary schools in the Southsouth States.

Methodology

The study adopted descriptive research of the survey type. It describes the current situation as they exist and also offers the opportunity to study relationships between the variables.

The population for the study consisted of all the Public secondary school teachers as provided by Ministries of Education in the Southsouth states, Nigeria. The states are Akwa Ibom, Bayelsa, Cross River, Delta, Edo, and Rivers. The sample for the study comprised 724 teachers. The multi stage sampling technique was used to select the sample. The first stage of selection was purposive of three states



believed to be technology compliant (Akwa Ibom, Delta and Edo) from the six states. The second stage was by random selection of local government areas. The third stage was also the random selection of public secondary schools from the local government areas.

The instrument for the study was a questionnaire titled 'Teachers' Qualifications and Digital Classroom in Public Secondary Schools Questionnaire (TQDCPSSQ)'. To make administration of the instrument easy, six trained research assistants were engaged to help the researcher who visited the schools to obtain permission of the Principals and teachers and also discussed the importance of the research before the administration of the questionnaire. This was to enable the researcher solicit their cooperation and ask for the convenient date and time for the

distribution of the questionnaire. The research assistants helped to distribute and retrieve the questionnaire.

Validity of the instrument was ascertained by experts in Educational technology and ICT while its reliability was established through test-retest method. The instrument was administered on the teachers outside the sample area two times within the interval of two weeks. The data in the first and the second administrations of the instrument were analysed using Pearson Product Moment Correlation Analysis which yielded reliability coefficient of 0.85 at 0.05 level of significance.

The data obtained were subjected to inferential statistics. The hypothesis was tested using ANOVA at 0.05 level of significance.

Result

Hypothesis: Teachers qualification would not significantly influence digital classroom public secondary schools in Southsouth States

Table 1: ANOVA summary showing teachers' qualification and digital classroom in public secondary schools in Southsouth.

States	Source	SS	df	Mean	F-cal	F-tab
A	Between Groups	1086.637	4	5.78	0.740	2.10
	Within Groups	53961.251	147	19.09		
	Total	55047.888	151			
D	Between Groups	1567.646	6	261.274	1.179	2.10
	Within Groups	81139.550	366	221.693		
	Total	82707.196	372			
E	Between Groups	3523.940	6	587.323	1.598	2.10
	Within Groups	70565.196	192	367.527		
	Total	74089.136	198			
Total	Between Groups	3528.414217	6	588.069	1.940	2.10
	Within Groups	312.7512208	717	303.086		
	Total	41.165	723			

P>0.05

Keys: A-Akwa Ibom

D-Delta

E-Edo



The table shows that F-cal (1.940) is less than F-table (2.10) at 0.05 level of significance. The null hypothesis is accepted. Similarly, the influence of teachers' qualification on technology utilization in Akwa Ibom State ($F=0.740$, $p>0.05$), Delta State ($f=1.179$, $p>0.05$) and Edo ($F=1.598$, $p>0.05$) is not significant at 0.05 level in each case. The implication is that teachers' qualification has no significant influence on technology utilization in secondary schools in Southsouth States.

Discussion

The findings of the study revealed that teachers' qualification had no significant influence on technology devices utilization in public secondary schools in Southsouth States. This disagreed with Jenni and Beardon in Jenni and Toni (2009) opinion that teachers require computer literacy skills to be able to use technology effectively in teaching. They believe graphic calculators used in teaching shapes and graphs demand teachers' skill.

Conclusion and Recommendations

The need for teachers to update themselves in the use of technology resources and adapt it to teaching and learning process is long overdue. The 21st century classroom should not be devoid of digital equipment and teachers should be skillful in the use of them. The benefit is that this will enable the students to learn in practical and engaging way through learner-centred activities while the teachers serve as facilitators. Through this

method, the students would be able to develop skills to think critically, solve problems working in team through collaboration and also develop communication skill. This will go a long way to prepare them for the world of work in the digital market. There is skill gap in the labour force because graduates that are turned out each year lack practical skills. Therefore, it is recommended that:

1. Government should provide digital devices for schools and train teachers to acquire skills on the use of technology devices to enhance effective teaching and learning.
2. Qualified teachers should engage students in more practical skills than theoretical work.
3. Teachers should also update themselves through workshops and seminars to be able them create exciting learning environment to motivate students' learning.



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