

INTEGRATION STRATEGIES OF MEDIA TECHNOLOGIES IN THE TEACHING OF PRIMARY SCHOOLS IN THE RURAL AREAS OF AKWA IBOM STATE

By

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Abstract

This study examined the integration strategies of digital media technologies in the teaching of primary schools in the rural areas of Akwa Ibom State. The objectives of the study were to find out if primary school teachers in Ibesikpo Asutan L.G.A use digital media technologies in their teaching, identify the digital technologies used by teachers, determine the strategies adopted to integrate digital media technologies in teaching, examine if the integration of the digital media technologies has enhanced learning and identify the barriers to effective integration of digital media technologies in the teaching of primary schools in Ibesikpo Asutan L.G.A. The study adopted the survey research design with questionnaire as the instrument for data collection. The population of the study comprised teachers of select primary schools in Ibesikpo which according to the administrative units of the school is 59. The research which was anchored on technological determinism theory and technological acceptance theory revealed that the majority of respondents (44%) said that they used audio tapes record player and Digitalvideo-on demand (DVD). Also, findings further revealed that digital media technologies have enhanced learning, depicted by (59%) of respondents affirming to that fact. The findings further revealed barriers to integrating digital media technologies to include, but not limited to, insufficient resources, inadequate access to technology, lack of administrative support by government and schools, negative perception of the use of technology and its impact on culture, lack of knowledge and expertise on the part of teachers, focus on using technology for computer-based testing rather than teaching and learning as well as negative attitude of teachers to technology. It was recommended that government at all levels should develop an integration plan by introducing digital media technology into one or more subject areas, and government should embark on training of teachers by sponsoring seminars, conferences, workshops on the use of ICTs in education.

Keywords: Integration, digital media, technology, strategies, teaching and schools.

Introduction

Communication remains an indispensible necessity for corporate and human sustainability (Udokop, Akarika & Kierian, 2023). The word “communication” is said to have been derived from the Latin word “Communis” which means “Common” (Nwanne, 2012, p.238-239). Communication is one of the most important activity in any organization (Akarika, Iwok & Jessica, 2022). Akarika (2021, p. 67) defines communication as “an expression of thoughts, feelings, ideas, messages from the sender to the receiver through verbal, non-verbal, written and non-written forms”. Baran (2007, p.4) defines communication as “the transmission of a message from a source to a receiver”. This means that for communication to be effective, the encoder and the receiver should be able to express their ideas. Communication is one of the most dominant and important functions in an organization (Harries & Nelson, 2018). Communication is essential for internal function of the organization because it integrates management function (Akarika, 2021). The major objectives of communication in any organization is to inform and educate employees at all levels on the... strategy and motivate them to support the strategy and organizational performance goals (Akarika, Nda & Iwok, 2022). Modern organization cultivate a process of a two-way communication not a linear, unidirectional communication flow (Akarika, Ekanem & Ukpe, 2017). Goldhaber (1993) cited in Akarika et al., (2017). Justifies the adoption of two-way interactive communication process, saying that modern organization now find themselves in an information society. Advancements in information and communication technology (ICT) are offering a promising new means in the educational sector to meet needs and demands of information age learners (Akarika, Kierian & Iwok, 2021).

ICT has the potential to provide a learning environment where students can actively be involved in the development of “initiative, creativity and skills in critical thinking and problem – solving, mental and physical skills needed for productive, using advanced technologies, engaging in group-processes and developing good habits for self-direction and personal growth” (Kemp, 2006, p.20). ICT is a broader term for Information Technology (ICT), which refers to all communication technologies, including the internet, wireless networks, cell phones, computers, software, middle wave, video conferencing, social networking, and other media applications and services enabling users to access, retrieve, store, transmit, and manipulate information in a digital age.

ICTs are also used to refer to all the conveyance of media technology such as audio-visual and telephone networks with computer networks, by means of a unified system of casting (including signal distribution and management) or link system.

The phrase “new media” encompasses a wide variety of developments in the creation, distribution, and consumption of media. These transformations are technical, textual, and cultural in nature (Lister, Dovey, Giddins, Grant & Kelly, 2003). The now “New” in “New media” implies a departure from the “old” or what Meikle (2002) calls “top-down technology”. According to Tacchi (2000), certain new media configurations should be viewed as extensions or elaborations of previous media. The advent of new media technologies has had a profound impact on the practice of communication in today's society. This slight in the media world, which is mostly based on the usage of digital computers, such

as the internet, and other portable digital device such as cell phones, iPods, and MP3 players, to name a few, is significant (Akpan, Peter & Akarika, 2022). According to McQuail, (2015, p.136) "The new media are diverse group of communication technologies that share some traits apart from being new, made feasible by digitalization, and widely available. Neuman (1991) cited by Croteau and Hoynes (2003) noted that the new media have technical capabilities to pull to one direction, while economic and social forces pull back in the opposite direction, Neuman further stated that "we are witnessing the evolution of a universal interconnected network of audio, video, and electronic text communication that will blur the distraction between public and private communication and added that the new media will do the following:

Alter the meaning of geographic distance.

Allow for a huge increase in the volume of communication

Provide the possibility of increasing the speed of communication

Allow forms of communication that were provably separate to overlap and interconnect.

New media and digital technologies are having a major impact on how organization consume information or messages (Akarika, Ukpe & Kierian, 2022). New media is often characterized as highly interactive digital technology. It is very easily processed, stored, transformed, retrieved, hyperlinked, and perhaps most radical of all, easily searched for and accessed (Neese, 2017). The following five types of new media according to Nesse (2017) are

Blogs

Virtual reality

Social media

Online newspaper

Digital games

Others examples of new media include; E-mails, Magic and telecom streaming services, Websites.

Integration of technology in schools refers to the use of technology to enhance the student learning experience. Utilizing different types of technology in the classroom, including a virtual classroom, produces learners who actively engage in learning objectives. The implementation of technology also creates pathways for differentiated instructions to meet the unique needs of students as individual learners within a broader classroom climate (<https://drexel.edu>).

There is a misconception that the integration of technology in the classroom can be a heavy financial burden for schools, parents and teachers, but students do not necessarily need their own laptops or computers to succeed with technology. The use of technology during whole-class instruction can foster student engagement for auditory and visual learners. Integrating simple technologies such as power points, games, internet homework assignments or online grading systems can be difference makers in students growth in the classroom (Fox 2018).

The integration of technology in teaching and learning can take many forms, and as such, there is no clear standard definition integration of technology. To name a few, integration of technology may be understood as teacher's computer use in classrooms, or how teachers use technology to carry out familiar activities more effectively, or how teachers use technology to develop students' thinking skills. Despite the lack of a clear standard definition, a common thread is the use of computing devices (for example, desktop computers, laptops, handheld

computers, software, or internet) for instructional purposes (Hew & Brush, 2007).

As technology increasingly transforms our daily lives, educators are seeking strategies and resources that leverage technology to improve student learning. Research demonstrates that high-quality professional development, digital standards-based content, and personalized learning plan can increase student achievement, engagement, and critical-thinking skills and provide students with access to learning opportunities otherwise difficult to attain

(<http://www.setda.org/web/TAPP/home>).

The National Education Technology Plan 2010 (NETP) developed by the United States (U.S) Department of Education Office of Educational Technology calls for a “revolutionary transformation” of our education system. This transformation includes the deployment of technology to engage students with rich learning experience and conduct assessments that measure achievement comprehensively and authentically. Collaborative teaching and professional learning opportunities for educators are also called for by the plan. The NETP outlines goals and recommendations in the following domains: Learning assessment, teaching, infrastructure, and productivity (National Education Technology Plan (NETP 2010).

Although research shows that technology can promote learning, many factors can threaten it. One study, analyzing the empirical literature on education technology from 1995-2006, (Hew & Brush, 2007) identified barriers to the use of technology in K-12 schools and strategies to overcome them. The potential barriers according to the authors are insufficient resources, inadequate access to technology and planning time; incomplete administrative support by schools planning; perception that technology is inconsistent with the traditional culture of the subject area, negative teacher attitudes to technology; lack of knowledge of skills related to specific technologies, technology-supported pedagogy, and technology-related classroom management; and focus on using technology for computer-based testing rather than teaching and learning.

According to Hew and Brush (2017), the strategies to overcome these barriers are: (i) developing a shared vision and technology integration plan; (ii) overcoming resources constraints by introducing technology into one or two subject areas at a time and creating a hybrid technology setup in classrooms that involves cheaper computer systems; (iii) providing teachers with ongoing encouragement and professional development; and (iv) aligning technologies to state curriculum standards (for example, technology-supported project-based learning aligned with state learning objectives).

The communication industry has witnessed remarkable changes.... The New media including 2go, LinkedIn, Whatsapp, Facebook, Youtube, Twitter, Instagram, Foursquare, Google+, Blogs, Live chats and Pinterest to mention a few, have not only widened the spectrum and method of communication but have brought new possibilities and opportunities in their wake (Akarika & Ekanem, 2018).

Advancements in information and communication technologies are offering a promising new means in the educational sector to meet the needs and demands of information age learners (Akarika, Kierian & Iwok, 2021).

The advent of new media technologies has had a profound impact on the practice of communication in today's society. This shift in the media world, which is mostly based on the usage of digital computers, such as the internet, and other portable digital devices such as cell phones, ipods, and MP3 players to name a few, is significant (Akpan, Peter & Akarika, 2022). The new media are diverse groups of communication technologies that share some traits apart from being new made feasible by digitalization and widely available for personal use as communication device (McQuail, 2005, p.136).

Despite the roles the new media technologies play, several obstacles still stand in their way to effective and efficient usage particularly in Nigeria. Gibam (2017) cited in Akpan et al. (2020) identified the challenges to include: no clear cut policies, cost of acquisition of new media technologies, low level of technical penetration, power supply, and lack of expertise. Others include cost of ICT facilities, lack of adequate infrastructures, and the challenge of sustainability (Igyuve, Inobemhe, Udeh & Ugber, 2020). To further buttress this point, Danaan (2006, p.117) argues that constant electric power outages in Least Developed Countries (LDC) of which Nigeria is one, pose a serious threat to the internal survival of ICTS.

The traditional teaching model seemingly is simply not effective anymore in this digital age enhanced by new media technologies. Teachers are developing lesson plans that may not be delivering the learning message that speaks to the times, as well as student learning attitudes. How can we fix this issue by integrating technology into the classroom. Digital media technologies are valuable means of educating people across the globe. In Nigeria, the digital media act as a two-edged sword as it allows citizens to be privy to information, education and entertainment without impediments. However, this same tool has been misused by the general public most especially children.

However, it was argued by Simpson & Obdalova (2014) that to perform optimally in this digital age, one has to be a digital literate and up to date in the skillful use of modern technology... Nonetheless, studies have revealed that most Nigerians lack the requisite knowledge/ finesse to operate in the new media environment that is transforming the nature and mode of operation of the society (Obijiofor, 2003; Obalanlege, 2015; Agbo & Chukwuma, 2017; Nwagbara & Asak, 2016). Based on the aforementioned, what are the strategies adopted by teachers of primary schools in Ibesikpo Asutan Local Government Area, Akwa Ibom State to integrate new media technologies in the teaching of primary school pupils?

Statement of the Problem

The emergence of information and Communication Technology (ICTs) has brought a tremendous change in the educational sector all over the world. Teachers in various countries especially in the Western World are seriously adopting and utilizing the numerous opportunities provided by the new ICTs for greater efficiency, better quality, faster production, and delivery of more reliable and cost effective service.

However, it seems that Nigeria and Africa are yet to fully catch up with the trend. According to the Economic Commission for Africa (ECA), only "very few countries in Africa have embarked on the ICT policy formulation process, while in many, the mechanism still falls short of the required standard" (ECA, 1999). Teachers in the rural areas in Nigeria are also faced with the problem of adopting media technologies in teaching of primary schools. Again, there are still

serious lapses in infrastructure especially in the areas of electricity and telecommunications, as well as in the training of teachers to handle some of these new media technologies.

Thus, Mbachu (2003) cited in Ogah (2007:197) observes that: "The newly emerging trends regarding Technology... globally indicates that in Nigeria can increasingly be left behind unless the country breaks the chain of economic stagnations and achieves a higher level of development that will guarantee its citizens a higher standard of living that will be a strong stimulus for production and consumption of the news technologies".

Thus, what are the integration strategies of media technologies utilized in primary schools in the rural areas of Akwa Ibom State?

Objectives of the Study

The following objectives were formulated to serve as guide to the study.

Determine the extent of use of digital media technologies in teaching by primary school teachers in Ibesikpo-Asutan L.G.A.

Identify the digital media technologies used by primary school teachers in teaching in Ibesikpo-Asutan L.G.A.

Determine the strategies adopted by primary school teachers to integrate digital media technologies in the teaching of primary schools in Ibesikpo Asutan L.G.A.

Examine the extent to which the integration of digital media technologies in the teaching of primary schools has enhanced learning.

Identify possible barriers to the integration of digital media technologies in the teaching of primary schools in Ibesikpo Asutan L.G.A

Research Questions

What is the extent of use of digital media technologies in teaching by primary school teachers in Ibesikpo Asutan L.G.A.?

What are the digital media technologies used by primary school teachers in IbesikpoAsutan L.G.A for teaching?

What strategies are adopted by primary school teachers in Ibesikpo-Asutan L.G.A to integrate digital media technology in their teaching of primary school pupils?

To what extent has the integration of digital media technology in the teaching of primary school pupils enhanced learning?

What are the barriers to the integration of digital media technologies in the teaching of primary schools in Ibesikpo-Asutan L.G.A?

Theoretical Framework

This study relied on the following theories namely: Technological Determinism theory and Technology Acceptance theory.

Technological Determinism Theory

The Technological Determinism theory was propounded by Everret Rogers in 1986. The term was coined by an American sociologist and economist, Thorstein Veblen (1851-1929).

The theory revolves around the proposition that technology in any given society defines its nature. Technology is viewed as the driving force of culture in a society and it determines its course of history.

Technological determinism is a reductionist theory that aims to provide a causative link between technology and a society's nature. It tries to explain as to whom or what could have a controlling power in human affairs. The theory questions the degree which human thought or action is influenced by technological factors. The theory assumes that a society's technology determines the development of its social and cultural values.

Karl Marx, provided an elaboration of technological determinist view of socioeconomic development, whose theoretical framework was grounded in the perspective that changes in technology, and specifically, productive technology, have the primary influence on human social relations and organizational structure, and that social relations and cultural practices ultimately revolve around technological and economic base of a given society. The technological determinist view is a technology led theory of social change. Technology is seen as the prime mover in history.

This theory is relevant to the present study because technology is seen as a prime mover so teachers will not want to be left behind.

Technological Acceptance Theory

Technological acceptance theory was introduced by Fred Davis in 1986. The theory postulates that the use of an information system is determined by the behavioural intention, and behavioural intention is determined by the person's attitude towards the use of a system and by his perception of utility. According to Davis, the attitude of an individual is not the only factor that determines his use of a system, but is also based on the impact that it may have on its performance. It means that the probability that an individual will use a certain technology is high if he or she perceives that the system will improve his or her performance at work.

According to Davis, the perceived usefulness (PU) is the degree to which an individual believes that using a particular system is free of physical and mental effort. Perceived ease of use and perceived usefulness positively affect the individual's attitudes toward an information system and also affect positively the individual's intentions to use and accept the information system. Scholars already confirmed that PU has a positive relationship with both adoption and intention (Bryon & Schoster 2005). The theory focuses on the adoption and use of Information communication Technology (ICT). It explains the determinants of user acceptance of a wide range of end-user computing technologies (Oguoshi, 2020). This theory is relevant to the present study in that primary school teacher's are trying to integrate digital technologies in their teaching because of perceived usefulness and perceived ease of use to enhance their performance.

Research Methodology

The study made use of survey research design with questionnaire used as an instrument to gather data. Survey is a research method used to gather information on beliefs, attitudes, opinion and views of people about various issues and event in the society (Berger, 2000, Gunter, 2000, Rubin, 2008 Rubbin, Haridakis & Piele 2010, Wimmer & Dominick, 2011). The population of the study comprise teachers of select primary schools in Ibesikpo namely:

Lutheran Nursery/primary school, Mbierebe (18), Boecler memorial Lutheran Nursery/primary school, Nung Oku (20), Leaders primary school, Afaha Ikot Nkan (11) and Ikpa Isong International school, Ibesikpo (10) thus giving a combined total of fifty nine (59) as population of the study, estimate obtained from administrative units of the schools (Akwa Ibom State Ministry of Education). The decision to choose these primary schools was influenced by two reasons. First, the heads of the schools accepted the researchers to embark on the study using their schools. And second, the schools had some visible digital media tools at their disposal. The census method was adopted by the researchers, since the population of the study was manageable. 59 copies of the questionnaire were administered on teachers of the select primary schools including their headmasters. Data gathered from the study were analyzed using simple percentages and distribution tables.

Literature Review

Digital media in education is measured by a person's ability to access, analyze, evaluate and produce media content and communication in a variety of forms (Buckingham, 2007). The media may involve incorporating multiple digital software's, devices and platforms as a tool for learning. The use of digital media in education is growing rapidly in today's age, competing with books for the leading form of communication. Integrating digital media in education is slowly combating the traditional forms of education that have been around for a long time. With the introduction of virtual education, there has been a need for more incorporation of new digital platforms in online classroom. Digital media take several forms, such as email, video, websites, photos, and slideshows. These platforms are most beneficial with the use of advanced technologies devices, such as ipods and laptops that have also been implemented in many classrooms. In the last decade different forms of digital media, such as laptops, video, and online research, have been incorporated into daily educational technology. The main benefit of digital media in education is that it can increase student engagement. In addition, it helps students work through difficult concepts with multiple resources. Digital instruction also helps to show different topics that are often hard to understand. It enhances learning digital skills. The main implications of digital media in education provide teachers and instructors the opportunity to engage in dialogue based on mutual respect and reciprocity. Secondly, as the foundation of all teaching and learning, there is a link between the mutual and the actual based on the fundamental human relationship (National Adaptation Plans, 2018).

There are various types of digital media technology currently utilized in teaching and learning processes which are: computer system, microphone, mobile device, interactive white board, digital-video-on demand, online media streaming, digital games, pod-cast among others. According to Yoon and Hoon (2009), in order to have effective service delivery in teaching and learning, the use of educational media and multimedia technology is important. Education using multimedia technology service delivery has had a dramatic impact on teaching and learning, especially with the ready access to new technologies, educational institutions are well position to take advantage of these rapid changes.

Educational media refers to channels of communication that carry messages with an instruction purpose. They are usually utilized for the sole purpose of learning and reading

(Webcrawler, 2013) cited in Singh, (2019).

There are different ways to classify media. Print media, non print media and electronic media.

Print media: These include: books, journals, magazines, newspapers, workbooks and textbooks. These are easy to use, portable and inexpensive.

Non-print media: These include projected and non-projected media

Electronic media: These include audio media, visual media and audio-visual media.

Audio media: These are the teaching-learning devices that appeal to the auditory sense for example, audio tapes, record player and radio.

Visual media: These are the media that appeals to the sense of seeing (eyes) or the media which can be seen, examples television, computer, white board.

Audio-visual: It refers to those instructional materials which provide learners with audio and visual experiences by appealing to the hearing and seeing senses at the same time. For example, television, video tapes, closed circuit television (CCTV).

Projected media: This belong to a group of institutional resources which can only be accessed by means of projecting their content on the screen or wall using a projector machine specially designed for that purpose (Gwarinda, 2002). For example film projector slides, among others.

Non-projected media: These aids do not require any projection on screen and do not require light source. They include 3 dimensional objects, 2 dimensional objects, prints charts, models among others.

Multimedia: This combines five basic types of media into the learning environment textvideo, sound, graphics and animation, thus providing a powerful view tool for education. Transiting from a traditional classroom to a digital classroom requires more than just integrating technology. It requires teaching strategies to implement technology in the most effective ways. As education technology experts gather for annual International Society for Technology in Education (ISTE) conference, they suggested fifteen mustfollow teaching strategies for digital classroom. They are: using mobile learning and social media to create a community; embracing a philosophy of formative assessment, putting communication and clarity first, taking advantage of E-books and digital content; encouraging hand written notes; uploading online lectures, personalizing instruction; having brainstorming sessions in class; incorporating interactive learning, taking learning outside the classroom; establishing peer-assisted learning, diversifying projects, restricting classrooms, giving breaks; and seeming less integration and management. Digital technology has changed our lives. It has changed education. Many teachers are joining the digital classroom and it is important that they develop teaching strategies to effectively guide students through the learning process. Without these teaching strategies, the digital tools are useless.

Data Presentation and Analysis Table 1: Educational Qualification of Teachers

Teachers Qualification	No of Respondents	Percentage
SSCE/its equivalent	31	53
NCE	15	25
B.Ed	6	10
B.A	4	7
B.Sc	3	5
Total	59	100

Table 1 shows that the majority of respondents (53%) were holders of SSCE/its equivalent.

Table 2: Extent of use of digital media technologies in teaching

Option	Frequency	Percentage
A very great extent	29	49
A great extent	15	25
Undecided	-	-
A little extent	5	8.5
A very little extent	10	16.5
Total	59	100

Table 2 shows that majority of teachers (49%) in select primary schools agreed to a very great extent use of digital media technologies in teaching.

Table 3: Predominant digital media used by teachers in teaching

Option	No of Respondents	Percentage
Television/video/white boards	16	27
Audio tape, record player/DVD	26	44.4
Photos/slide/digital game	10	17
Laptops/computers/ipods	2	3
e-mail	-	-
Social media	-	-
Microphone	-	-
Others, please specify	-	-
All of the above	5	8.5
Total	59	100

Table 3 shows that the majority of the respondents (44.5%) said that the predominant digital media used by teachers were audio tapes, record player and DVD (digital Videoon demand). This means that audio tapes, record players and DVD were integrated into t eaching practice of teachers in the select primary schools in Ibesikpo Asutan L.G.A

Table 4: Strategies adopted by teachers to integrate digital technology in teaching

Option	Frequency	Percentage
Use of mobile learning using formative assessment, putting communication and clarity first/taking advantage of digital content.	10	17
Encouraging hand written notes/brainstorming session in class, incorporating interactive learning, field trips and use of breaks	14	24
Restructuring of classroom, use of integration and management and diversification of projects	5	8
All of the above	30	51
Total	59	100

Table 4 vividly captures the strategies adopted by primary school teachers to integrate digital media technologies in teaching. The majority of respondents (51%) agreed that they adopted the following strategies: use of mobile learning; formative assessment; putting communication and clarity first; taking advantage of digital content; encouraging hand written notes/brainstorming sessions in class; incorporating interactive learning; fieldtrips and use of breaks, restructuring classrooms, use of integration and management and diversification of projects. This means that teachers adopted various strategies in integrating digital media technology in their teaching.

Table 5: Extent to which the integration of digital media technologies enhanced learning

Option	Frequency	Percentage
A very great extent	35	59
A great extent	10	17
Undecided/neutral	-	-
A little extent	10	17
A very little extent	4	7
Total	59	100

Table 5 shows that majority of respondents (59%) agreed that the extent to which the integration of digital media technologies enhanced learning is a very great extent. This implies that digital media technologies enhanced learning.

Table 6: Barriers to integration of digital media technologies in teaching by teachers

Option	Frequency	Percentage
Insufficient resources	7	12
Inadequate access to technology	3	5
Lack of administrative support by government and schools	11	19
Perceptions about the use of technology and its impact on culture, lack of knowledge and expertise by teachers on the use of digital media technology	5	8.5
Focus on using technology for computer-based testing rather than teaching and learning	5	8.5
Negative attitude of teachers about technology	3	5
All of the above	25	42
Total	59	100

Table 6 captured the barriers to integrating digital media technologies in teachings. The majority of respondents (42%) were of the opinion that the following barriers were impediments to full integration of digital media technologies in learning: insufficient resources, inadequate access to technology, lack of administrative support by government/schools, negative perception about the use of technology and its impact on culture, lack of knowledge and expertise on the part of teachers, focus on using technology for computer-based testing rather than teaching and learning and negative attitude of teachers about technology.

Discussion of Findings

The findings of this study are therefore discussed in line with the research questions:

Research Question 1: What is the extent of use of digital media technologies in teaching by primary school teachers in Ibesikpo-Austan L.G.A.?

Data gathered and presented in table 2 shows all respondents 59 representing (100%) agreed that they used digital media technologies in teaching. The finding of this study gives credence to the clarion call by NETP (2010) developed by the United States Department of Education Office of Educational Technology who called for a revolution any transformation of our educational system through the deployment of technology to engage students with rich learning experience...

Research Question 2: What are the digital media technologies used by primary school teachers in teaching in Ibesikpo-Asutan L.G.A.?

Table 3 captured vividly the predominant digital media technologies used by primary school teachers in Ibesikpo Asutan L.G.A. The majority of respondents 26 (44.5%) said that they used audio tapes, record player and DVD (Digital video-on demand). This implies that audio tapes, record player and DVD were integrated into teaching practice by primary school teachers of Ibesikpo L.G.A. Finding of this study gives credence to the classification given by Webcrawler, (2013), cited in Singh (2019) on educational media to include audio media.

Findings of this study corroborate the assertion that recently different forms of digital media, such as... video... have been incorporated into daily educational technology. This use of digital media in education is growing rapidly in today's age; competing with books for the leading form of communication. This form of education is slowly combating the traditional forms of education that have been around for a long time. With the introduction of virtual education, there has been a need for more incorporation of new digital platforms in online classroom. The traditional teaching model is simply not effective anymore in this digital age enhanced by new media technologies. Teachers are developing lesson plans that may not be delivering student learning attitudes.

Research Question 3: What strategies are adopted by primary school teachers in Ibesikpo Asutan L.G.A to integrate digital media technologies in their teaching of primary school pupils?

Data gathered and presented in table 4 provide answer to the research question. The majority of respondents 30 (51%) agreed that they adopted the following strategies to integrate digital media technology in the teaching; use of mobile learning; formative assessment; putting communication and clarity first, taking advantage of digital content; encouraging hand written notes/brainstorming sessions in class; incorporating interactive learning, field trips and use of breaks; restructuring classroom, use of integration and management; and diversification of projects. The finding of this study agrees with (ISTE conference) who suggested fifteen must-follow teaching strategies for digital classroom.

Research Question 4: To What extent has the integration of digital media technology in the teaching of primary schools enhanced learning?

Table 5 shows that majority of respondents (59%) were of the opinion that the extent to which the integration of digital media technologies has enhanced learning is a very great extent. This implies that digital media technologies enhance learning. Findings of the study confirms research which demonstrates that high quality professional development, digital standards-based content, and personalized learning plans can increase student achievement, engagement, and critical thinking skills, and provide students with access to learning opportunities otherwise difficult to attain (<http://www.setd.org/web/TAPP/home>).

The main benefit of digital media in education is that it can increase student engagement. In addition, it helps students work through difficult concepts with multiple resources, it enhances learning. The finding of this study also gives credence to the Technological Acceptance theory.

Research Question 5: What are the barriers to the integration of digital media technologies in teaching of primary schools in Ibesikpo Asutan L.G.A?

Table 6 captured the barriers to integrating digital media technologies in teaching of primary schools in Ibesikpo Asutan L.G.A. The majority of respondents (42%) were of the opinion that the following were barriers to integrating digital media technologies in learning: insufficient resources, inadequate access to technology, lack of administrative support by government/schools, negative perception on the use of technology and its impact on culture, lack of knowledge and expertise on the part of teachers, focus on using technology for computer-based testing rather than teaching and learning, and negative attitude of teachers about technology. Findings of this study agrees with studies which revealed that most Nigerians lack the requisite knowledge/finesse to operate in the new media environment that is transforming the national mode of operation of the society (Obijiofor, 2003; Obalanlege, 2015, Agbo, Nwagbara & Asak, 2016 & Chukwuma, 2017;). Also, a study, by (Hew & Brush, 2007) identified barriers to the use of technology in K-12 schools to include: insufficient resources, inadequate access to technology and planning time; incomplete administrative support or school planning; perceptions that technology is inconsistent with the traditional culture of the subject area; negative teacher's attitudes about technology; lack of knowledge about and skills related to specific technologies; technology supported pedagogy, and technology related classroom management; and focus on using technology for computer-based testing rather than teaching and learning.

Conclusion

Although there is a misconception that the integration of digital media technology in the classroom can be heavy financial burden on schools, parents and teachers, it is study concluded that students/pupils do not necessarily need their personal laptops or computers to succeed at the primary level. So in order to have effective sense delivery in teaching and learning, the use of digital media technologies in the education sector is important.

Recommendations

Based on the aforementioned discussion, the following recommendations are therefore made.

1. Government at all levels should develop an integration plan by introducing digital media technology into one or more subject areas.
2. Government should embark on technological development of teachers at all levels by sponsoring seminars, conferences and workshops on the use of ICTs in education.

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