EXAMINING THE APPLICATION OF DIGITAL STORYTELLING PEDAGOGICAL DESIGN IN A PERIOD OF SOCIO - POLITICAL AND ECONOMIC UNCERTAINTIES IN NIGERIA

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Abstract

This study examined the application of digital storytelling pedagogical design by business educators in tertiary institutions in Anambra State. One research question guided the study and two null hypotheses were tested. Descriptive survey research design was adopted for the study. The population of the study comprised 99 business educators from public tertiary institution in Anambra State. Census survey technique was used due to the relatively small size of the population. The instrument for data collection was a structured questionnaire titled "Digital-storytelling Pedagogical Design Questionnaire" (DPDQ) which was validated by three experts. Cronbach alpha was used to determine the reliability of the instrument and it yielded reliability coefficient of 0.88. Data collected were analyzed using mean and standard deviation to answer research question while t-test was used in testing the hypotheses at 0.05 level of significance. The findings of the study revealed among others that business educators applied digital story telling pedagogical design at a low level in tertiary institutions in Anambra State. Based on the findings, it was recommended among others that business educators should digitalize instructional delivery so as to ensure easy access to equitable quality education, distance and location notwithstanding. Lecturers should from time to time avail themselves the opportunity to get acquainted with the state-of-the-art technology by attending the training programmes, workshops and seminars.

Keywords: E-learning**,** Digital storytelling, pedagogical designs, business education, business educators

Introduction

Nigeria, although described as giant of Africa is facing a lot of social political and economic crises. Fagbadebo (2019) stated that Nigeria is a victim of high-level corruption, bad governance, political instability and a cyclical legitimacy crisis. Decades of efforts have yielded largely stagnation, regression or worse. The tragic consequences of this are increasingly clear: a rising tide of poverty, decaying public utilities and infrastructures, social tensions and political turmoil and now premonition of inevitable drive into conflict and violence. Social, political, and economic instability has been emphasized as a major source of uncertainty in Nigeria. It has become a trend which is already affecting individual lives and may do so for decades to come (Organization for Economic Cooperation and Development, 2018). It is generally presumed that uncertainty (social, political and economic) may have adverse effects on every aspect of a country, education inclusive (Abbas, Ahmed and Husain, 2019).

Socio-political and economic uncertainty has hindered rapid accelerated progress in education by marginalizing many communities. These marginalized community fail to catch up with the privileged ones and are also denied a more effective, holistic and equitable education for all (Hergarty, 2017). Widening inequality threatens to further disrupt our system and leave a large part of the world behind. Change is happening at a disorienting pace and our tertiary institutions can barely keep up. The need arises for tertiary institutions to begin to operate in a social space that intellectual developments in one region of the world could be felt by academics and their students on the other side of the globe. With the increasing advocacy that technology offers possibilities for solutions to some of the problems in education, tertiary institutions all over the world are altering their teaching approaches.

The rise in technology has fundamentally changed the way we live, work and communicate. The 'tidal wave' of Artificial Intelligence, robotics, 3D printers, augmented and virtual reality is now the reality that is making major transformation in a workplace sector. Unfortunately, education remains modelled on an approach developed hundreds of years ago (Naras, 2020; Schleicher, 2015). Technology is advancing at an ever-increasing rate, transforming the nature of work and employment in the society. Tertiary institutions being part of the society need to adopt instructional designs that address the new digital and interactive tools that can be integrated into the learning experience. In educational institutions, the application of e-learning entails the use of a whole range of technologies involved in information processing and electronic communication such as computers, the internet, e-mail, computer software, satellite, mobile communication gadgets, and other allied electronic devices for dissemination of knowledge and information. It focuses on the use of ICT in teaching and learning and requires that instructors or teachers to have a clear understanding of the tools used in creating the content and developing components of online courses. This includes knowledge of pedagogical design, process analysis design as well as development and implementation of these designs in the classroom.

Pedagogical Design (PD) is the process of analyzing learning goals, specifying the expected learning outcomes, and organizing both the learning content and resources in a manner to ensure the achievement of the stated goals (Akudolu, 2012). Pedagogical design simply means the interactive process between teachers and learners through the planning or working out of the e-learning resources. This implies that e-learning pedagogical designs aim at bridging the gap between the learning content and technology to ensure effective learning. It is the platform through which learning occurs as the learner comes in contact with both the

content and the technologies. There are many pedagogical designs for e-learning that could be applied in instructional delivery by business educators to achieve learning objectives. One of these pedagogical designs is digital storytelling.

Digital storytelling has become a worldwide phenomenon, with practitioners from across the globe creating digital stories to integrate technology into the classroom. Digital storytelling according to Dalim, Azliza, Ibrahim, Zulkipli and Yusof (2019), digital storytelling is one of the new instructional technologies that calls upon students' creativity and helps them to learn by doing. Lambert (2010), defined digital storytelling as a 2-5 minutes audio-visual clip combining photographs, voice-over narration and other audio. Digital storytelling can take any form and ultimately refers to any narrative created and shared using digital tools (Davis, Waycott and Schleser, 2019). The application of digital storytelling in teaching and learning empowers students in a variety of ways, including intellectually, culturally and creatively. Also, digital storytelling allows students to evaluate the reality that surrounds them and produce their own interpretation of it (Gregori-Signs, 2014).

Akudolu (2012) is of the view that digital storytelling as one of the models of e-learning that is revolutionizing the instructional process is a process in which learning occurs through stories. Akudolu went further to state that instead of presenting the learning content in the traditional lecturing pedagogy, the relevant knowledge and skills are embedded in stories and images. Mitsikopoulou (2014) comparing traditional storytelling and digital storytelling opined that digital storytelling is the practice of using computer-based tools to tell stories and the focus is on a specific topic and a particular point of view. The views of Robin and Pierson in Akudolu (2012) revealed that digital storytelling revolve around the idea of combining the longstanding art of telling stories with any of a variety of multimedia tools.

As an instructional tool, teachers have the option of showing previously-created digital stories to their students to introduce content and capture students' attention when presenting new ideas (Robin, 2008). Jackson (2013) maintained that integrating visual images with written text enhance and accelerate students' comprehension. Thus, digital storytelling is a good technology tool for collecting, creating, analyzing, and combining visual images with written text. In a research work with college-level visual anthropology students, Fletcher and Camber (2009) used digital storytelling assignments that allow students to create visual narratives that tap into their intellectual and creative abilities to present their understanding of the course material, as well as their sense of the social complexities in which they reside. The authors found that digital storytelling can be a powerful classroom practice when used as a pedagogical tool that brings the creator(facilitator/student) and the viewer together in a dialogue around the nature of representation, meaning, and authority embedded in imagery and narrative.

Similarly, Robin (2008) stated that digital storytelling can also be a powerful tool in the classroom when used to produce historical documentaries, as well as instructional presentations that inform viewers about a particular concept or practice. According to Robin (2016), in addition to having students create digital stories as a distinct stand-alone activity, students might also be encouraged to develop instructional materials that can be used to support the educational topics and themes of the digital storytelling experience.

Matthew – Denatale and Traynor (2008) suggested that when developing a syllabus, it is a good idea to include detailed information about the project assignment in your syllabus or in a handout that students receive early in the semester because digital stories require students to gather images and often to take pictures that illustrate their story's narrative, therefore the

more lead time that the students have, the better their finished project will be. Matthew – Denatale and Traynor went further to recommend that assignment should be divided into the following phases: brainstorming, scripting, storyboarding, recording and editing, fine-tuning and titling, burning and sharing. Students who participate in the full digital storytelling experience may also benefit from learning to critique their work, as well as the work of others, facilitating social learning and emotional intelligence (Robin, 2008).

The application of digital storytelling by lecturers should be considered to promote and improve teaching and learning also, to close the widening inequalities created by social, economic and political uncertainties in Nigeria. Tertiary institutions are paramount in the process of production of quality manpower for the management of various sectors of the national economy. The application of e-learning pedagogical design in tertiary institutions according to Kituyi and Tusubira (2012) should be done gradually because it involves several groups of interest like students, lecturers, technicians and policymakers among others. Several salient issues concerning costs, quality assurance and organizational culture among others often emerge during the process. Given that higher education forms the knowledge foundation for basic professional understanding and development of new skills for in-depth information acquisition, tertiary institutions including those offering business education need to re-think their roles, revise their curricula according to changing demands and provide the services and methods of instruction that are easily accessible to learners whether far or near. However, several challenges are facing tertiary institutions in developing countries including Nigeria as they seek to apply e-learning in instructional delivery. Some of these challenges are associated with the demographic variables of the individuals involved in the application of e-learning pedagogical designs in instructional delivery. Some of these demographic factors includes; age, gender, teaching experience, e-learning experience among others. In this study however, two demographic factors are considered, namely; gender and age.

Gender is a factor that could come to focus in the context of an e-learning application. Business educators used in the study are males and females of different age brackets which may influence their application of e-learning pedagogical designs. For instance, Mcknight-Tutein and Thackaberry (2011) asserted that there was a strong body of evidence which suggested that females learn differently from males, which make females inherently more successful in the e-learning environment. Mcknight-Tutein and Thackaberry believed that females are uniquely positioned to be effective learners because they use affective learning methods which includes learning with music, laughter, progressive relaxation, among others, that allow them to learn in relational ways by drawing on connections. On the contrary, Chiaha, Eze and Ezeudu (2013) discovered that gender does not affect the utilization of e-learning facilities in tertiary institutions in south-east Nigeria because male and female lecturers were exposed to the same environmental learning conditions when they were students. Hence, this study sought to examine the level at which male and female lecturers applied e-learning pedagogical designs in instructional delivery and to discover if gender differences observed by other researchers are similar to that of this study. Therefore, considering gender in this study could yield useful practical information to the study. In addition, these lecturers are of different age brackets which may influence their application of e-learning pedagogical designs.

In respect of age, literature is replete with suggestions that age is a factor that might moderate teachers' use of technology. The age of the business educators captures the digital divides (the digital natives and the digital migrants). Zur and Zur (2011) assertted that digital native is a term for people born in the digital era while digital migrants refer to those born

before about 1964 and who grew up in a pre-computer world. In this study, business educators between the ages of 35 and below are referred to as digital natives (those born in the present digital era) while business educators above 35 are termed digital immigrants (those born in the analogue era). Tarhini, Hone and Liu (2014) found that age plays an important role in the acceptance of technology because age moderates the relationship between perceived ease of usefulness, perceived usefulness, social norm, self-efficacy and behavioural intention. In contrast, Fleming, Becker and Newton (2017) found no moderating effect of age on imparting either future use intentions or satisfaction with e-learning. Notwithstanding, age is still one of the predictors for applying e-learning pedagogical designs in instructional delivery, thus the need to consider age in this study.

The study anchored on Technology Acceptance Model (TAM) which was postulated by Fred Davis and Richard Bagozzi in 1989. The theory is an information system theory that models how users come to accept and use ICT in the classroom. The model proposes that when users are presented with a novel technology, a number of factors influence their choice of using it. Such factors as Perceived Usefulness (PU) which is all about the degree to which a person believes that using a particular system would enhance his or her job performance as well as Perceived Ease-of-Use (PEOU) refers to the degree to which a person believes that using a particular system would be easy and effortless. This means that the more the person thinks of a technology as being easy to use, the greater probabilities he or she will be willing to adopt and use such technology.

Consequently, Davis and Bagozzi's theory reasoned that the key to the use of any new technology was to first understand and accept the usefulness of the technology in question, which could be assessed by asking individuals about their future intentions to use the new technology. The more positive the responses to the factors of perceived usefulness and perceived ease of use, then the more positive attitudes of teachers will be to the use of ICT and the more likely they will be to use ICT in their teaching. The positive attitudes of business educators towards the usefulness and ease of use of digital storytelling pedagogical design, will interest and motivate them to apply it in instructional delivery.

Furthermore, this model will enable business educators to understand the usefulness and the ease of application of digital storytelling pedagogical design also, the novelty of the pedagogy facilitates teaching and learning. Thus, minimizes the burden of teaching which was previously teacher-centered, non-interactive and all-demanding on the part of the lecturers. They will see the need to apply digital storytelling pedagogical design including student-centered, interactive and less demanding on their part for instructional delivery. It is against this background that this study was conceived to examine the application of digital storytelling pedagogical designs by business educators in tertiary institutions in Anambra State.

Research Question

- What is the level of application of digital storytelling in instructional delivery by business educators in tertiary institutions in Anambra State?

Hypotheses

- Male and female business educators in tertiary institutions in Anambra State do not differ significantly on their level of application of digital storytelling in instructional delivery.

- Business educators in tertiary institutions in Anambra State do not differ significantly on their level of application of digital storytelling in instructional delivery as a result of age (35yrs and below, and above 35yrs).

Method

Descriptive survey research design was utilized for the study. According to Nworgu (2015), a descriptive survey research design is one in which a group of people or items are studied by collecting and analyzing data from only a few people or items considered to be representative of the entire group. The design was deemed appropriate because the researchers collected data from the population of the study and draw inferences on business educators' level of application of virtual-learning pedagogical designs for instructional delivery in tertiary institutions in Anambra State. The study was carried out in public tertiary institutions in Anambra State. The population of the study comprised all the 99 business educators in all four public tertiary institutions in Anambra State. This is according to data collected from Academic Planning Unit of each institution (2022). Census survey sampling technique was used due to the relatively small size of the population of the study. A 7-items researcher developed questionnaire titled "Digital storytelling Pedagogical Design Questionnaire (DPDQ)" was used for data collection. The questionnaire is divided into two sections of A and B. Section A sought to elicit respondents' personal data such as gender and age while section B consisted of 7 items on digital storytelling. Respondents were required to indicate their opinions on a 5 point rating scale of Very High Level (VHL); High Level (HL); Moderate Level (ML), Low Level (LL) and Very Low Level (VLL) weighed 5, 4, 3, 2 and 1 respectively. Three experts face validated the instrument. Cronbach alpha coefficient measure of internal consistency was used to determine the reliability of the instrument and a coefficient of 0.88 was obtained. 99 copies of the questionnaire were administered to the respondents by the researcher and two research assistants and 90 copies were retrieved on completion which gave a retrieval rate of 91%. The data generated was analyzed through descriptive statistics of Mean and Standard deviation to answer the research question. Inferential statistics (t-test) was employed to test the hypotheses at 0.05 level of significance.

Results

What is the level of application of digital storytelling in instructional delivery by business educators in tertiary institutions in Anambra State?
Analysis of data relating to this research question is presented in Table 1

Table 1

Mean responses of Business Educators on level of application of digital storytelling.

S/No	Items on Digital Storytelling	Mean	SD	Decision
1.	Creating electronic informative stories/instructive stories.	2.40	1.31	Low level
2.	Creating short video clip on YouTube to tell stories to present information on specific topics.	2.47	1.30	Low level
3.	Creating intricate games with course contents by assigning points and levels to certain actions.	2.45	1.18	Low level
4.	Creating short film which uses words, music, sound effects and moving images to present information on specific topics.	2.35	1.15	Low level
5.	Creating a website that contains audio clips with comments to present information on specific topics.	2.38	1.20	Low level
6.	Creating electronic personal narratives on specific topics and			

	particular viewpoints.			2.31	1.32	Low level	
7.	Creating visual images and 3D pictures to tell creative stories on specific topics and particular view.						
				2.11	1.20	Low level	
Cluster Mean			**2.35**	**1.24**	**Low level**		

Data in Table 1 show that business educators apply all the items 23 – 29, with mean scores ranging from 2.11 – 2.47 at a low level. The cluster mean of 2.35 indicates that business educators in tertiary institutions in Anambra State apply digital storytelling in instructional delivery at a low level. The standard deviations of 1.15 to 1.32 with a cluster of 1.24 are within the same range showing that business educators are not wide apart in their responses.

Table 2
Summary of t-test Result on the Level of Application of Digital Storytelling by Male and Female Business Educators in Tertiary Institutions in Anambra State.

Digital storytelling	N	$\overline{X}$	SD	df	t-value	p-value	Decision
Male	33	2.31	1.01				
				88	-.681	.497	Not significant
Female	57	2.47	1.12				

Data in Table 2 show that male and female business educators in tertiary institutions in Anambra State do not differ significantly on their level of application of digital storytelling in instructional delivery. This is shown by the p-value of .497 which is greater than the significant level of 0.05. This shows that there is no significant difference in the mean responses of business educators. Therefore, the null hypothesis of no significant difference between the two groups is accepted.

Table 3
Summary of t-test Result on the Level of Application of Digital Storytelling by Business Educators in Tertiary Institutions in Anambra State as a Result of Age.

Digital storytelling	N	$\overline{X}$	SD	df	t-value	p-value	Decision
35 years and Below	33	2.43	.85				
				88	.095	.925	Not significant
Above 35 years	57	2.41	1.11				

Data in Table 3 show that business educators in tertiary institutions in Anambra State do not differ significantly on their level of application of digital storytelling in instructional delivery as a result of age. This is shown by the p-value of 0.925 which is greater than the significant level of 0.05. This shows that there is no significant difference in the mean responses of business educators. Therefore, the null hypothesis of no significant difference between the two groups is accepted.

Discussion of Findings

The finding of the study revealed that business educators in tertiary institutions in Anambra State applied digital storytelling at a low level. Similar findings were obtained by

Robin (2016), who reported that the term of digital stories might not be familiar to everyone even though the actions of compiling images, text, recorded audio narration, video clips and music in short movies have been occurring for the past few decades. This implies that most educators tend to act without knowing the exact term relating to it. This disagrees with Dalim, Azliza, Ibrahim, Zulkipli and Yusof (2019) who held that pre-service teachers moderately experienced the use of digital storytelling in their learning. Another study done by Gakhar (2007) also showed a moderate level of exposure of respondents towards digital storytelling.

The finding of the first hypothesis indicated that there was no significant difference in the mean responses of male and female business educators on their level of application of digital storytelling. This disagrees with Suki and Suki (2017) who observed that female teachers were more experienced in the use of animation and storytelling than their male counterparts. Also, the second hypothesis revealed that age has no statistically significant effect on the level at which business educators applied digital storytelling in instructional delivery. This is in line with Alexandrakis, Chorianopoulos and Tselios (2020) who reported that age had no statistically moderating effect on the usage of Web 2.0 storytelling technologies. Also, Okoli and Ikpat (2022) asserted that most business educators are not trained with modern office equipment and technologies, some of them has undergone some training on usage of learning technologies and thus still depend only on traditional methods for delivering their lessons. This could be as a result of their inabilities to adapt to the novelty of technologies in learning.

Conclusion

Based on the findings of the study, it is clear that digital storytelling pedagogical design discussed in the study is still a new term among business educators as its application is very low. This is a sad development bearing in mind that digital storytelling has the potentials to equalize the education inequalities created by social, economic and political uncertainties in Nigeria as it allows learning to take place anywhere irrespective of distance and location. Education inequalities have impeded educational gains made towards achieving the Sustainable Development Goals (SDGs). To ensure inclusive and equitable quality education and promote lifelong learning opportunities for all by 2030, there's need for the full adoption and application of these pedagogical designs for instructional delivery in tertiary institutions.

Recommendations

10. Business educators should digitalize instructional delivery so as to ensure easy access to equitable quality education, distance and location notwithstanding.
11. Business educators should reduce their over reliance on traditional teaching method and integrate modern technologies in instructional delivery so as to re-align students with the market need.
12. Business educators should from time to time avail themselves the opportunity to get acquainted with the state-of-the-art technology (especially those born in the pre-computer world) by attending the training programmes, workshops and seminars.

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