

A SURVEY OF ASSETS AND CHALLENGES OF VISUAL TEACHING IN CHILDHOOD EDUCATION, IN COVID – 19 ERA IN NIGERIA

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Abstract

Children from their early stage after birth are fascinated by what they see rather than what they hear. Organization of visual materials in a way to achieve a given instructional objectives refers to visual teaching. However, the emergent of COVID-19 pandemic gave more credence to visual teaching as one of the teaching methods that strived during COVID -19 pandemic total lockdown for teaching of children. Thus, this study aimed to empirically ascertain the challenges and assets of visual teaching in childhood education in North Central, Nigeria. The study adopted survey research design. Two research questions guided the study. A sample size of 900 childhood education teachers drawn from 60 primary schools in North Central Nigeria was used for the study. Mean and standard deviation was used to answer the research questions. The result of the study showed that the challenges of visual teaching in childhood education include that teachers have poor knowledge of visual teaching, Visual teaching requires sequential and strategic organization visual materials for adequate communication, teachers skills on visual teaching is inadequate, there is shortage of visual teaching aids among basic schools in North Central Nigeria, and there is insufficient facilities required to support visual teaching among basic schools in North Central Nigeria among others. Besides, the result of the study revealed the assets of visual teaching in the COVID- 19 era to include visual teaching fosters critical thinking among learners, visual teaching increases high order learning among learners, visual learning enhances retention among learners and that visual teaching and learning is suitable for learners with both good and poor language skill among others. Thus, the study concluded that visual teaching is not effectively used in North Central Nigeria. Hence the study recommends that capacity building programme should be organized for basic education school teachers on visual teaching.

Keywords: Survey, Assets, Challenges, Visual Teaching, Childhood Education, Covid-19 Era, North-Central Nigeria.

Introduction

The world is moving from a period in which the language of production and manufacturing dominated our way of seeing the world; now, ideas about information and communication shape our discourse. It might be that we are actually in the midst of an even deeper change, one in which the pendulum of worldview is swinging from a more masculine and word-based culture to one that is more feminine and image based. It is hard to ignore that the generation of children now moving through our educational system is by far the most visually stimulated generation that system has ever had to teach. Having grown up with cable television, video games, computer software that educates and entertains, and the internet, children are truly visual learners coming of age in an increasingly visually oriented world. Notwithstanding individual differences in intelligence and learning style, this generation of children needs to be taught the way they learn best—with visual stimulation accompanied mostly at the childhood education level.

Childhood education refers to the level of education given to the learners within the age bracket refer to be the age of a child. Nzeribe (2004) affirms that childhood education include pre-school or kindergarten, primary school and junior secondary school. This is also referred to as basic education given the new frame of Nigeria education system (9-3-4) (National policy in Education, 2012). Georg (2015) opined that basic level of education is very essential for its foundational functions to other stages of education be it primary or junior secondary.

Primary school is the six years of compulsory schooling (Akinbote, 2011). The author continued by saying that it is the initial stage of formal education and has as its basic aim to create, establish and offer opportunities to all children, regardless of age, gender and country of origin, to achieve a balanced cognitive, emotional and psychomotor development. Primary school as seen by Lambo (2013) is the first level of education referring to the formal level of education where government has direct interest and control with respect to the development of curriculum, recruitment and payment of teachers' salaries, enrolment of pupils, provision of facilities and equipment among other things. Primary school education according to Nzeribe (2004) is the level of education given to the children who are at middle childhood to late childhood. Primary school education as referred to in National Policy of Education Federal Republic of Nigeria (FRN) (2013), is an education given in an institution for children aged normally 6 to 11 plus. Primary school is the most popular level of education in Nigeria and other parts of the world. Thus, junior secondary school is referred to as upper basic education. It precedes primary schools and pupils who concluded the primary school education transit to junior secondary. However, one thing common between primary and junior secondary is that learners at this level are below adolescent stage in ideal state, hence often learn more from what they see than what they hear. Thus, teaching and learning at this stage requires effective use of visual teaching.

Since vision develops rapidly in the infant and so governs human sensory occurrence, it soon evolves into the dominant means through which children learn about their world. Pupils' population is made up of 65 percent visual learners, 30 percent auditory learners, and 5 percent kinesthetic learners (Nzeribe, 2004). Based on the concept that visual images are a language, visual literacy can be defined as the ability to understand and create visual messages. Development in the area of visual literacy has focused on the growth and expansion of educational programs that stimulate students' abilities to assess and produce a visual

language, as well as enhancement of students' reading and writing skills through the use of visual literacy strategies.

Visual Literacy refers to a group of vision-competencies a human being can develop by seeing and at the same time having and integrating other sensory experiences. The development of these competencies is fundamental to normal human learning. When developed, they enable a visually literate person to discriminate and interpret the visible actions, objects, symbols, natural or man-made, that he encounters in his environment. Through the creative use of these competencies, he is able to communicate with others. Through the appreciative use of these competencies, he is able to comprehend and enjoy the masterworks of visual communication.

Visual literacy in the classroom has become increasingly important as more and more information and entertainment is accessed through technology. It requires both the teacher and the learner to develop the ability to think critically and visually about the images presented to them. The Dale Cone of Experience model is based on the concept that learning evolves from the concrete to the abstract; visual symbols are nonverbal representations that precede verbal symbols (Sinatra, 1986). Because pictures or illustrations are analogs of experience and are only one step removed from actual events, these visual representations may be able to capture and communicate the concrete experience in various ways (https://uk.sagepub.com/sites/default/files/upm-binaries/27832_Ch_1.pdf).

Visual teaching is a visual dominated teaching. It involves conscious provision and organization of graphics such as pictogram, graphs, pictures, photographs, and animation aimed to communicate, create understanding and making the learner to learn. It has the capacity of impact divergent ideas and increasing critical thinking ability on the learner. In **Visual teaching method**, teachers prefer to use images, graphics, colors and maps to communicate ideas and thoughts. Visual learners must see information in order to learn it. These learners are likely to have a photographic memory and may use color, tone and brightness to recall information. In class, visual learners will benefit from seeing diagrams drawn out, for example, on a chalkboard and in slideshows. **Visual learning** refers to a mode of learning where students rely on graphic aids to remember and learn material. Visual learners can easily visualize objects, have a great sense of balance and alignment, and are very color-oriented and can effortlessly envision imagery. Visual learners learn best by color-coding their notes, making to-do lists and using concept maps to organize their thoughts. Visual learning helps one to see the information as the learner captures the image of what is seen that what is heard, based on spatial awareness, images, colour, brightness, or any other visual information. Visual learning is often the strength behind the success of the learners. Using photography as a tool to enhance this strength is a wonderful way to captivate and motivate pupils hence, photography is a universal language. Pupils naturally and honestly communicate with photographs

Besides, Visual teaching strategies are being used more across the country. They can help one achieve and manage learning objectives. It helps you to think critically and develop skills such as problem-solving, decision making and better understanding. You can take up many activities for learning such as drawing, writing reports, games, flashcards, displays, photographs, posters, documentaries, OHP sheets, etc. It is observed that 21st century teachers adapt visual methods for teaching by using whiteboards, handouts, images, videos,

presentations, etc. for effective learning. Visual learners can boost their confidence and performance in school. However, it has been observed that the classroom is the best place for learners to learn visually which was a bit difficult during the COVID -19 pandemic lockdown. (<https://www.embibe.com/exams/visual-learning-benefits-and-strategies-for-students-teachers/>).

COVID- 19 is an abbreviation of corona virus that broke out in 2019 from China. And was considered a global pandemic hence its outbreak is across the globe. COVID – 19 is an infectious virus that kills its victim or carrier in couple of days by attacking the respiratory system carriers making it difficult if not impossible to breathe. Its symptoms include headache, high fever sneezing and difficulty in breathing (WHO Report, 2019). Given its rapid spread, certain measures were put in place to stop the spread of COVID-19. Thus, people were advised to maintain social distancing of about one meter, strictly adhere to personal hygiene such as washing of hand frequently and avoidance of hand shake. However these measures proved abortive and did not yield the expected result. Irrespective of the measures in place, statistics has it that millions of people lost their lives to COVID- 19 pandemic leading to total lockdown of every activity all over the world.

The challenges brought about by COVID-19, in one way or another, affect and will affect each of us – the wellbeing of all groups of the society in each affected country and globally (Shi, et al. 2003; & Rajkumar, 2020). In general, coronavirus have severe health, social and academic consequences. Students felt severe effects of the first wave of the COVID-19 pandemic as there is a huge change in their everyday lives, and, probably even more alarming in the near and distant future. Teachers were not exempted from the effects of covid-19 such as abrupt change in education system and methods of teaching among which include visual teaching.

In developing countries like Nigeria, visual teaching normally takes place in the classroom. It was compelled to take another dimension and based on the COVID -19 lockdown. Besides, early childhood and lower basic pupils whom their teaching resources are predominantly visual teaching aid suffered to learn. Some parents became emergency teachers without skills. Given this observation during the COVID- 19 lockdown coupled with special skills required for effective use of visual teaching the researchers deemed it wise and necessary to find out the assets (advantages) and challenges of visual teaching with emphasis on North Central Nigeria.

Purpose of study

The purpose of the study was to find out assets and challenges of visual teaching in COVID– 19 era in North Central Nigeria.

Specifically, the study seeks to determine:

- I. assets of visual teaching and learning in North Central Nigeria
- II. challenges of effective use of visual teaching and learning in Covid – 19 era in North Central Nigeria

Research Questions

The following research questions were posed to guide the study:

1. What are the assets of visual teaching and learning in North Central Nigeria?

2. What are the challenges of effective use of visual teaching and learning in COVID – 19 era in North Central Nigeria?

Methods

The study adopted a descriptive survey research design. Descriptive survey research design, according to Nworgu (2015), seeks to describe and report characteristics and situations in its natural state. It is used when the aim of a given study is to describe variable or variables in their un-manipulated form. Hence it is ideal for this study since the researchers tend to empirically determine the challenges and assets of visual teaching in childhood education in Nigeria from the view point of the teachers' in North Central Nigeria. The population of the study comprise all childhood education teachers in North Central Nigeria. The study used a sample size of 900 public childhood education school teachers comprising 450 primary school teachers and 450 junior secondary school (JSS) teachers amounting to 900 teachers (458 male and 442 female teachers), drawn across the six states in North Central Nigeria, using dual-stage sampling techniques.

In the first stage the researcher used stratified non proportionate random sampling techniques to draw 60 public basic schools: 10 (five primary and five junior secondary schools) from each of the six states in North Central Nigeria. At the second stage, the researcher used random sampling techniques to draw 15 teachers from each of the 60 sampled basic schools which amounted to 900 childhood education teachers, use for the study. The sampling techniques were deemed appropriate to ensure probability sampling and also to ensure manageable sample size given the method deemed appropriate for data collection for the study.

The instrument for data collection for the study was questionnaire titled: "visual teaching assessment questionnaire (VTAQ)." developed by the researchers. The VTAQ was made up of two parts; A and B. Part A sought for demographic information of the childhood education teachers, while part B is made up of 20 items modelled on a four point scale ranging from strongly agreed (SA) = 4 points, Agreed (A), = 3 points, Disagreed (D) = 2 points to Strongly Disagreed (SD) = 1 point; organized into two clusters: cluster 1 and cluster 2. Cluster 1 contained 10 items to elicit information from childhood education teachers on challenges of visual teaching in North Central Nigeria. While Cluster 2 of VTAQ is made up of 10 items to elicit information on prospects of visual teaching and learning. The instrument was face validated by four experts: two in educational curriculum; a measurement and evaluation expert, and one education technology specialist all from university of Abuja, Nigeria.

These experts were requested to look at the instrument in terms of suitability of the instrument and the items in line with the purpose of the study, research and questions. The useful suggestions made by validates were used in the correction and production of the final instrument (VTAQ). 20 copies of the final instrument were used to collect data from 20 childhood education teachers (10 junior secondary school teachers and 10 primary school teachers from Kogi State. Data collected were subjected to trial – testing to ascertain the reliability of the instrument using Cronbach Alpha statistical method. The choice of Cronbach Alpha was because the items of the VTAQ were polytomously scored. The reliability coefficients of 0.87 was obtained which proves the instrument to be highly reliable. 12 research assistants made up of masters students of university of Abuja, were employed and trained for one day on how to collect data from teachers. The research assistance were trained on how to

be polite to the respondents and were sent in pairs to each of the states and in pairs to each of the sampled basic education schools upon prior notification of the school in writing. Data collection lasted for two months.

Method of data analysis

Data collected were analyzed using mean and standard deviation. All computations were made using Statistical Package for Social Science (SPSS) to ensure accuracy of result. To answer the research questions, the result was interpreted using limit of real numbers: where a mean score of 1.00 - 1.49 was regarded as Strongly Disagreed (SD); 1.50 – 2.49 as Disagreed (D); 2.50 – 3.49 as Agreed (A) while 3.50 – 4.00 as Strongly Agreed (SA).

Results

Research question one

What are the assets of visual teaching in North Central Nigeria?

Table 1: Mean and Standard Deviation of Respondents on assets of visual teaching in North Central Nigeria

N = 900

S/N	Items	X	Std.	Decision
1	Visual teaching and learning fosters critical thinking among learners	2.71	0.24	Agreed
2	Visual teaching increases high order learning among learners	2.87	0.21	Agreed
3	Visual learning enhances retention among learners	2.88	0.42	Agreed
4	Visual teaching and learning is suitable for learners with good language skill	2.84	0.33	Agreed
5	Visual teaching and learning is suitable for learners with poor language skill	2.78	0.35	Agreed
6	Visual teaching and learning is useful in teaching learners with language impairment in North Central Nigeria.	2.71	0.44	Agreed
7	Childhood education teachers in requires capacity building on the use of visual teaching methods	2.60	0.51	Agreed
8	Visual teaching and learning necessary for effective teaching in the covid- 19 era	2.51	0.32	Agreed
9	The increase in the use of ICT in education among teachers and learners will grantee effective use of visual teaching and learning in the covid-19 era.	2.60	0.33	Agreed
10	Visual teaching should be incorporated teacher education curriculum and made mandatory for student teachers	2.66	0.32	Agreed
Cluster mean		2.67	0.34	Agreed

N = Number of respondents

Table 2: Revealed the Prospects of visual teaching and learning in COVID – 19 era in North Central Nigeria with a cluster mean score of 2.67 (0.34). Given the result presented on the table above, It was observed that among the suggested items: Visual learning enhances retention among learners, and Visual teaching increases high order learning among learners, rated highest with mean score of 2.88 (0.42), and 2.87 (0.21) respectively on the assets of visual teaching and learning. The result also that respondents agreed that visual teaching and learning fosters critical thinking among learners , Visual teaching increases high order learning, visual learning enhances retention among learners, Visual teaching and learning is suitable for learners with good language skill, visual teaching is suitable for learners with poor language skill, visual teaching is useful in teaching learners with language impairment, childhood education teachers in North Central Nigeria requires capacity building on the use of visual teaching methods, visual teaching and learning necessary in the COVID- 19 era, the increase in the use of ICT in education among teachers and learners will grantee effective use of visual teaching and learning in the COVID-19 era, and that visual teaching should be incorporated teacher education curriculum and made mandatory for student teachers. The above visual teaching and learning assets indicators, have mean response acceptance scores of 2.50 and above: the benchmark that indicates agreement. Therefore visual teaching and learning is of good assets in childhood education in North Central Nigeria.

Research Question two

What are the challenges of effective use of visual teaching and learning in COVID – 19 era in North Central Nigeria?

Table 2: Mean and Standard Deviation of Respondents on challenges of effective use of visual teaching in COVID – 19 era

N=900

S/N	Item	X	Std.	Decision
1	Teachers have poor knowledge of visual teaching.	2.70	0.30	Agreed
2	Visual teaching is not applicable to pupils with visual impairment	3.83	0.24	Strongly Agreed
3	Visual teaching requires sequential and strategic organization visual materials for adequate communication	3.80	0.21	Strongly Agreed
4	Teachers skills on visual teaching is inadequate	2.71	0.42	Agreed
5	There is shortage of visual teaching aids among basic schools in North Central Nigeria	2.60	0.33	Agreed
6	There are insufficient facilities required to support visual teaching among basic schools in North Central Nigeria.	2.68	0.35	Agreed
7	Covid-19 lockdown affects the effective use of visual teaching method	2.53	0.44	Agreed
8	Visual teaching is not effective at basic level of education during Covid-19.	2.72	0.51	Agreed
9	Visual teaching is not possible in North Central Nigeriain the covid-19 era	2.41	0.42	Disagreed

10	Visual teaching is more effectively used in the classroom setting	2.55	0.33	Agreed
	Cluster mean	2.61	0.36	Agreed

N = Number of respondents

Table 1: Presented the responses of respondents on the challenges of effective use of visual teaching and learning in COVID – 19 era which has a cluster mean score of 2.61. It was observed among other challenges that visual teaching and learning is not applicable to pupils with visual impairment, and visual teaching and learning requires sequential and strategic organization visual materials for adequate communication, rated highest with mean score of 3.83 (0.24), and 3.80 (0.21) respectively on the challenges working against effective use of visual teaching and learning in COVID – 19 era. Thus, other challenges such as: Teachers’ poor knowledge of visual teaching, teachers skills on visual teaching is inadequate, There is shortage of visual teaching aids among basic schools in North Central Nigeria. There are insufficient facilities required to support visual learning among basic schools in North Central Nigeria, and COVID-19 lockdown affects the effective use of visual teaching method, among others have mean score of 2.50 and above being the benchmark of acceptance. However, the respondents disagree on the item that suggested that: visual teaching is not possible in the COVID-19 era, hence it’s rated mean score 2.41 (0.42) is below the benchmark of acceptance.

Findings

The following findings were made:

- i. Visual teaching and learning is of good assets in childhood education in North Central Nigeria.
- ii. Visual teaching and learning is not effectively used in North Central Nigeria.
- iii. Teachers have poor knowledge of visual teaching and learning.
- iv. Teachers’ skills on visual teaching are inadequate.
- v. There is shortage of visual teaching aids among basic schools in North Central Nigeria.
- vi. There is insufficient facilities required to support visual learning among basic schools in North Central Nigeria,

Conclusion and Recommendations

In general, the study revealed that visual teaching and learning in North Central Nigeria is faced with some challenges. Those challenges have been identified by this study. Notwithstanding, visual teaching has excellent assets in North Central Nigeria, Abuja. The researchers therefore suggest that there is an urgent need for the government, teacher education and other stake holders in education to be more pro-active in solving the identified challenges of visual teaching. In this respect it is recommended that:

- Government of the states in North Central Nigeria should organize capacity building programme for basic education teachers on visual teaching and learning.
- Basic education teachers should be trained to improve their skills on improvising material for visual teaching.
- The government stakeholders in education in North Central Nigeria should increase the supply of visual teaching aids to basic schools in North Central Nigeria
- Facilities such as computer, printers and internet facilities should be made available in basic education schools for effective visual teaching and learning.

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