African Journal of Social and Behavioural Sciences (AJSBS)
Volume 14, Number 4 (2024) ISSN: 2141-209X

INFLUENCE OF INTERACTIVE INSTRUCTION APPROACH IN ENHANCING CURRICULUM DELIVERY AT TERTIARY INSTITUTIONS IN IMO STATE

Ogechi Chuka-Okonkwo

Department of Guidance and Counselling, Faculty of Education, Imo State University, Owerri

ogechichukaonkwo@yahoo.com

ABSTRACT: This study investigated the influence of an interactive instruction approach in enhancing curriculum delivery in tertiary institutions in Imo State. The approach included the use of interactive boards, web 2.0 tools and other ICT-related facilities. Both qualitative and quantitative approaches were used. An analytical survey design was adopted through the use of structured interviews and obtrusive observation. A sample of 50 teacher educators comprising 34 females and 16 males was randomly selected from two purposively sampled tertiary institutions in Imo State. The content analysis approach was used to analyse the responses at both the descriptive and interpretative levels to answer the research questions, while the chi-square test was used to test the three (3) hypotheses of the study at an error level of 0.05. The results revealed that an insignificant proportion of the respondents had knowledge and could use the interactive instruction method. Results also revealed that acquisition does not significantly depend on gender or school but significantly depends on age. It was recommended that all teacher-educator institutions urgently procure and install interactive teaching facilities and train educators accordingly.

Keywords: Curriculum, Curriculum Implementation, Interactive Instruction Approach, Content Analysis, Interactive Board

INTRODUCTION

Over the last decade, there has been a shift from manufacturing to an emphasis on information and knowledge services. Knowledge itself is growing and expanding exponentially. Information and communication technology is transforming how people learn and reshape social relationships (Pacific Policy Research Centre, 2019). The education system across the globe has witnessed several educational reforms, initiatives and changes geared towards enhancing students' achievement and peer interaction, not with routine skills but by being able to command and expand the power of technology to create new knowledge. Today, much success lies in being able to communicate, share and use information to solve complex problems.

Considering that education is what survives when what has been learned has been forgotten, there is a need for effective implementation of any designed curriculum; in other words, education is the process throughwhich a group of people transmit cultural heritage to subsequent generations. Hawes (2018) states that ‘efficiency may be measured only at its ultimate effects on the learner and what is learnt". Saidu (2021) suggested that thecurriculum development process cannot be separated from its implementation strategies.

Since 1969 when a curriculum conference was held in Lagos, two major education events have occurred. was the 1973 National Seminar on National Policy, which led to the Federal Republic of Nigeria's National Policy on Education in 2018. The second event was the National Workshop on

the Implementation of National Policy held at Kaduna and Lagos in 1978, which led to the blueprint of the implementation committee and the amended National Policy on Education in 1980.

Curriculum implementation, as far as this country is concerned, is putting the clearly stated five objectives and national values into action. It is a common belief that schools are established to train children who will be useful to themselves and their society. The actual realization of these comprehensive interactionalmaterials should be provided for effective implementation, which can lead to the achievement of the stated *aims* and objectives of education.

The implementation committee blueprint (2020) recommended that teachers bemainly NCE and graduate teachers in all subjects or areas. Fafunwa (1974). Notably, there is a need for enough and adequate materials for implementation as one of the important elements of education. The above statements show how important implementation is in trying to initiate a permanent change in the behaviour of the learner or student.

Effective teaching, which can take place through the best use of instructional materials and individual understanding, helps the individual to improve his abilities and develop more desirable changes in the behaviour ofthe students or the learners in the school through teaching aids. Learning is an indication that the teacher possesses a clear understanding of things such as the specific changes in knowledge, understanding, skills or attitudes towards the subject matter that are desirable; how people learn, that is, how people can be influenced to change through the use ofeffective strategies and how to teach; and how to involve teaching methods and materials to bring about changes in student behaviour.

However, Ogoamaka (2019) emphasized that in most countries such as Nigeria, teacher-centred frontal teaching has dominated classroom practice and is referred to as authoritarian, rigid, chalk- and talk- and lecture-driven (Izuagba, 2018). With this approach, the curriculum is sacrosanct, i.e., transmitted without alteration, and learning is based on repetition using mechanical exercises. Currently, new standards for what students should be able to do are replacing the basic skill competencies and knowledge expectations of the past. The Partnership for 21st Century Skills has developed a framework for 21st Century learning that describes the skills that students need to thrive in today's global economy. 21st Century skills have brought global awareness of each country's need to constantly update its workforce, i.e., educators in preparation for the future.

According to the Pacific Policy Research Century (2010), the 21st century curriculum should cover four broad areas:

1) Life and career skills – These skills focus on the ability to navigate complex life and work environments and include skills such as flexibility and adaptability to change, the ability to possess initiative and self-direction, the ability to manage time and goals, the ability to work independently, the ability to work effectively with others, respecting individual and cultural differences, the ability to demonstrate good leadership and the ability to be responsible to others.
2) Learning and innovation skills with a focus on creativity, critical thinking, innovative thinking, problem solving, communication and collaboration, information, media and technological skills.
3) The 21st century themes were integrated within the academic content of the core subjects. These themes included global awareness; financial, economic, business, entrepreneurial literacy; and civic, health and environmental literacy.

4) Information and media technology skills, with a focus on accessing information efficiently and effectively, evaluating it critically and competently and using the information accessed accurately and creatively to solve problems.

To achieve the above goals, many researchers have advocated a paradigm shift from teacher-centred frontal teaching to learner-centred flexible processes where learning is interactive and contextualized with an emphasis on hands-on activities because when the curriculum is transactional and knowledge evolves, teachers and students learn together. (Izuagba, 2018; Kennewell, 2019; Kolo, 2019 & Candy, 2022).

Many researchers, including writers, have carried out research on the problem of curriculum implementation in both junior and senior secondary schools in many parts of the country, but these studies have yielded no results. Therefore, the common problems identified include a lack of interactive teaching facilities in various institutions, a lack of periodic training and retraining of teachers, inadequate finances, an adequate effort by government and school management to ensure a steady power supply, especially during class periods, a lack of internet connectivity in institutions to avail any educator who desires self-training to do so without a great financial burden, and a shortage of instructional materials that overpopulations of schools and students in some of the institutions could be responsible for proper operation of the whole educational system. The same financial problem may lead to a shortage of teachers and the upbringing of untrained teachers in the body of the teaching profession through workshops, seminars, public lectures, magazines and other publications. Facilities are meant to facilitate teaching in general, but they are lacking in many institutions in the country. For any curriculum to truly achieve its stated objectives, aims and goals, comprehensive and adequate materials for all activities should be available.

Garba (2018) noted that inadequate finances, a lack of trained teachers and students' dislike for vocational trades hamper the implementation of the present system of education 6-3-3-4. In fact, students cannot learn effectively when a class is overpopulated. For instance, the class of 35-40 students is more manageable than the class of 60-70 students, especially in the field of continuous assessment.

Teachers are the key personnel in realizing the national goal of a knowledgeable society, as in acquiring these 21st-century skills, they need to be lifelong learners themselves to shoulder the heavy responsibilities entrusted to them. In this way, Kolo (2019) posits that teachers can become capable of positively influencing students in terms of their thoughts, behaviours and lifestyles. Information literacy is also seen as a major component of this lifelong learning needed by teachers and comprises effective information seeking, information evaluation and selection, as well as effectiveness in transmitting information to others (Candy, 2022). Oliver and Towers (2021) focused on teachers' acquisition of ICT literacy, which includes using digital technology, communication tools and/or networks to access, manage, integrate, evaluate and create information to function in a knowledge society. Simmons (2021) also noted that effective teaching in the 21st century requires more than a basic understanding of educational theory and classroom management and stressed that teachers must also collaborate with other educators to learn how to implement new technology in the classroom and how to prepare students to enter a global economy. Most developed countries of the world, such as the USA and Singapore, have developed teacher education models for the 21st century and have integrated the expected skills and knowledge of 21st-century pedagogies into their education system in various ways with the necessary infrastructure and technological facilities (Hammond, 2016).

This is evident in the use of interactive boards and other computer-based teacher-student interactions that occur in the classroom. Interactive boards, also known as electronic boards, are display monitors that are produced of various sizes. They have two distinct functions: display and interactivity. As a display tool, the teacher can use it to display specific content-related files, software or internet resources. As an interactive tool, it allows the user to write and manipulate objects, including images and text. The interactive board is usually connected through a USB port to a computer and a projector. The combination of the board, projector and computer represents a dynamic system that facilitates flexibility in the classroom. The specific advantages of using interactive boards during instruction are that they promote more flexibility in how lessons are communicated and promote student interaction with content. It also enhances better visualization of concepts and motivates both students and teachers as class instruction becomes less rigid, more interesting and more realistic.

Some tools and software can also be used to teach specific concepts with interactive boards; for instance, the Web 2.0 tool is an interactive tool used to teach specific content in mathematics. The teacher can use flash-based pallets such as the tangram puzzle to demonstrate mathematical concepts. The tangram puzzle can help teachers and students acquire geometrical thinking and reasoning. This method of teaching provides immediate feedback and satisfaction to learners. The use of power points in presenting the major concepts of subjects has since been adopted.

In the Nigerian context, in addition to the review of the National Policy on Education, which further reiterated the importance of quality teacher education as an impetus for national development, an attempt was made to develop a specific national policy for teacher education in 2007 with the following overall goal: "In recognition of the pivotal role of quality teachers in the provision of quality education at all levels, teacher education shall continue to be emphasized in all educational planning and development". (Federal Republic of Nigeria, 2013, p.1). The National Policy on Education hopes to reorient and restructure teacher education by achieving the following objectives, among others: Ensure that teacher education institutions are well equipped both in human and material resources; ensure structured, effective and supportive supervision of teaching practice and induction as well as certification and licensing; motivate teachers and provide opportunities for their continuing professional development, retention, advancement and improvement in their chosen career; and recommend that teachers constantly upgrade their skills to remain competent and relevant.

To achieve these objectives, policy statements related to these key educational challenges were developed. However, there is yet to be a comprehensive strategy for the effective translation and implementation of these policy statements. However, the focus thus far has been on a few infrastructural development and curriculum innovations that have translated into the inclusion of additional subjects into the school subject curriculum, such as civic education, computer, and trade courses, without recourse to the teachers who will teach the subjects; rather, teachers of other nonrelated subjects to the newly created ones were forced to teach these new subjects irrespective of their areas of specialization. The use of 21st-century pedagogies and digital tools such as computers and interactive boards have remained a far cry for these educators.

Krumhollz (2018) investigated the ability of grader schoolteachers to detect students' vision problems after they were educated. The results of the study indicated a statistically significant increase in the ability of the teachers to correctly identify students with vision and learning problems. This was the case even for the experimental group, i.e., teachers who were trained exhibited greater abilities than teachers who were not educated, i.e., the control group. Fihaskar (2022), who investigated ICT education for parents and teachers, interviewed 40 parents and 40 teachers to

ascertain the extent to which they had acquired more ICT education by themselves or otherwise. The study revealed that only 5% of the respondents made self-effort to educate themselves, especially on ICT. Ogomaka and Ihiekwaba's (2019) survey on lecturers' perceptions of the impact of staff development strategies on quality teaching revealed that younger lecturers within the age bracket of 30–40 are inclined to use ICT in teaching and are more open to self-development than older lecturers. Their study revealed that older staff are more conservative and exhibit a lack of interest and openness to learning ICT skills even with college sponsorship.

Hammond (2018) recommended that to develop and execute a 21st-century-focused teacher education programme, coherence and integration that establish links and relationships between courses are important. Overriding this is extensive, well-supervised clinical experience that spans a full year of the academic programme and is supported by newly emerging pedagogies. What proportion of teacher-educator have knowledge and have received training on the use of interactive instruction approaches, and what are the perceived hindrances? The study specifically answered the following research questions and tested the hypotheses to achieve the objectives of the study:

Research Questions

1. What proportion of teacher-educators can use the interactive instruction approach in teaching?
2. What proportion of teacher-educators cannot use the interactive instruction approach in teaching?
3. What proportion of teacher-educators have received sponsorship training on the use of the interactive instruction approach in teaching?
4. What proportion of teacher-educators have received self-sponsored training on the use of the interactive instruction approach in teaching?
5. What are the perceived hindrances to acquiring interactive instruction Approach skills?

Hypotheses

1. The acquisition of interactive instruction teaching skills by teacher-educators does not significantly depend on gender.
2. The acquisition of interactive instruction teaching skills by teacher-educators does not significantly depend on age.
3. The acquisition of interactive instruction teaching skills by teacher-educators does not significantly depend on the school.

METHOD

Qualitative and quantitative approaches were used for the study. An analytical survey design employing structured interviews and obtrusive observation was adopted.

Out of a population of 225 teacher-educators, 50 teacher-educators were interviewed and observed. Twenty-five educators (1.7 females, 8 males each) were randomly selected from the two purposively selected tertiary institutions in Imo State. The two tertiary institutions were selected because they have faculties of education, where teachers are trained. Their responses were analysed using the content analysis approach at both the descriptive and interpretative levels based on the frequency of their responses to answer the research questions, while the hypotheses were tested

using chi-square statistics. The items of the interview were validated by two experts for both face and content validity. The reliability of the items was established using Cronbach's alpha statistics, and an index of 0.71 was obtained.

RESULTS AND DISCUSSION

Out of the 50 teacher educators interviewed, only 8 respondents agreed that they have knowledge and can use the interactive instruction approach during instruction, while 42 respondents cannot use the skill. Those who could use the approach represented 16% of all participants. A proportion of 0.16% of the respondents answered that they had no knowledge and could not use the approach, representing 84% and 0.84%, respectively. The proportion of 0.16 is too low and far below expectations of the global desire to make today teachers lifelong learners with the ability to positively influence students' learning, as posited by Kolo (2019).

Interview analysis also revealed that 1 out of the respondents who had interactive approach skills were sponsored by their institution, i.e., a proportion of 0.125, while the others sponsored themselves, and the number represented a proportion of 0.875. This trend corroborates Bhaskar's (2021) findings that a small proportion (0.5) of the respondents used to be educated or trained on ICT. Furthermore, the findings support the importance of interactive teaching and mobile learning. Aginam (2020, p. 9) asserted that mobile learning is the future of education and that it provides students with a better grasp of what is being taught in the classroom and helps teachers ensure that every student is carried out during the learning process.

The interviewees identified the perceived hindrances to the acquisition of interactive skills to include:

i. Lack of the required facilities, such as interactive boards and Web 2.0.
ii. Unavailability of computers and their accessibility.
iii. Crowded teaching time and the rush to cover content.
iv. Adequate and regular power supply.
v. Lack of will, interest and poor motivation for training among teacher educators
vi. Poor funding, especially for providing such required facilities and training
vii. Lack of internet connectivity to facilitate use.
viii. The continued use of analogue teaching approaches by various teacher education institutions.

Hypothesis 1 - The acquisition of interactive instruction teaching skills by teacher educators does not significantly depend on gender.

Table 1: Chi-square Analysis of Association between Teaching Skill Acquisition and Gender

O	E	O - E	$(O - E)^2$	$\frac{(O - E)2}{E}$
4	2.56	1.44	2.070	0.81
4	5.44	1.44	2.070	0.38
12	13.44	1.44	2.070	0.15
20	38.56	1.44	2.070	0.07
Total				**1.41**

χ^2 calculated = 1.41; (1, 0.05) 3.841

The chi-square analysis showed that the chi-square calculated value of 1.41 was less than the table value of 3.841 at one degree of freedom and an error level of 0.05. The hypothesis is therefore accepted that the acquisition of interactive instruction teaching skills by teacher educators does not significantly depend on gender. The results show that both male and female teacher educators lack these instructional skills. This trend is below expectations, especially at this time when interactive learning is emphasized at all levels of education (Izuagba, (2018); Kolo, (2019); Candy, 2022).

Hypothesis 2 - The acquisition of interactive instruction teaching skills by teacher educators does not significantly depend on age.

Table 2: Chi-square Analysis of the Association between Teaching Skill Acquisition and Age

O	E	O - E	$(O - E)^2$	$\frac{(O - E)2}{E}$
10	3.90	6.10	37.210	*9.54*
2.2	3.64	-1.62	2.690	0.74
1	*5.46*	-4.46	19.892	3.64
5	11.10	-6.10	37.210	3.35
12	10.36	1.64	2.690	0.26
20	*15.54*	4.46	19.892	1.29
Total				**18.82**

χ^2 calculated = 18.82; (2, 0.05) 5.991

The calculated value of 18.82 is greater than the table value of 5.991; therefore, we reject the null hypothesis and accept the alternative that the acquisition of interactive instruction teaching skills by teacher educators significantly depends on age. The above results showed that young educators aged 30-44 years are more familiar with interactive teaching skills than educators aged 45 years and older. This trend is in line with the findings of Ogomaka and Ihekwaba (2019) that younger lecturers exhibit more interest and willingness to acquire ICT skills even when not sponsored.

Hypothesis 3 — The acquisition of interactive instruction teaching skills by teacher educators does not significantly depend on the school.

Table 3: Chi-square analysis of the association between interactive teaching skill acquisition and school

O	E	O - E	$(O - E)^2$	$\frac{(O - E)2}{E}$
4	3.12	0.88	0.774	0.25
2	2.88	-0.88	0.774	0.27
22	22.88	-0.88	0.774	0.03
22	21.12	0.88	0.774	0.04
Total				0.59

χ^2 calculated = 0.59; (1, 0.05) 3.841

Since the calculated value of 0.59 is less than that in Table 3.841, we accept the hypothesis that the acquisition of interactive teaching skills by teacher educators does not significantly depend on the

school. This result reveals that all teacher education institutions need much to be desired in the training and retraining of teacher educators, especially in the use of interactive teaching methods.

Conclusion

Education across the globe has continued to undergo various reforms aimed at replacing the teacher-centred method of teaching with interactive teaching at all levels to meet the challenges of 21st-century teaching and learning. Regrettably, developing countries, especially Nigeria, still face the problem of enhancing the capacity of key players, i.e., those who educate teachers to be abreast of these challenges. The results of this study revealed the following:

i. Only 1.6% of the respondents have knowledge of the use of interactive teaching approaches, and only 8.25% of the respondents were knowledgeable about the approach they sponsored themselves in the capacity enhancement programme.
ii. The acquisition of interactive teaching knowledge does not significantly depend on gender or school but significantly depends on age. The respondents who were knowledgeable about the skill were all in the age cohort of 35-44 years. Teacher educators are encouraged to be open to change in tandem with the current global move for capacity updates and peer collaboration.

Recommendations

Based on the findings of the study, the following is recommended:

1. All teacher education institutions should urgently install interactive teaching facilities and tools in their various institutions.
2. Teacher educators should be trained and retrained periodically in the use of facilities
3. More funds should be released to these institutions to assist them in procuring the facilities.
4. Adequate effort should be made by government and school management to ensure a steady power supply, especially during class periods.
5. There should be internet connectivity in institutions to support any educator who desires self-training to do so without much financial burden.

REFERENCES

Aginam, E. (2020, June 5). Nigerian varsities get $100m technological fund. *Vanguard,* p. 9.

Bhaskar, B. (2021). Educating the educators: Self-inquiry for parents and teachers. *Journal of Computer Assisted Learning*, 26(3), 175-189.

Candy, P. (2022). Information literacy and lifelong learning. White paper prepared for UNESCO, the U.S. National Commission on Libraries and Information Science, and the National Forum on Information Literacy, for use at the Information Literacy Meeting of Experts, Prague, The Czech Republic.

Federal Ministry of Education. (2013). *National Teacher Education Policy*. Abuja: FME.

Fihaskar, M. (2022). Effects of teaching methods and study habits on students' achievement in senior secondary school Physics, using a pictorial organizer. Delhi: Amar Publishers.

Hammond. (2018). Constructing 21st century teacher education. *Journal of Teacher Education*, 57(2).

Izuagba, A. C. (2018). *Teaching Economics and Government: Methods strategies and techniques*. Owerri: Mega Atlas Projects Ltd.

Kennewell, S. (2019). Analysing the use of interactive technology to implement interactive teaching. *Journal of Computer Assisted Learning*, 24(1), 61-73.

Kolo, I. (2019, February 6). A sustainable road map for the education sector. *Leadership Nigeria*.

Krumholtz, S. C. (2018). Educating the educators: Increasing grade-school teachers' ability to detect vision problems. *Journal of the American Optometric Association*, 75(97), 445-451.

Levy, I. (2022). Interactive whiteboards in learning and teaching in two Sheffield schools: A developmental study. Retrieved from http://ldis.shef.ac.uk/eirg/projects/wboards.html

NCREL & Metiri Group. (2023). Engage 21st century skill: Literacy in the digital age. Retrieved from http://www.ncrel.org/engauge/skills/skills.htm

Ogomaka, P. M. C., & Ihiekwaba, C. N. (2019). Lecturers' perception of the impact of some staff development strategies on quality teaching. *African Journal of Allied Education (AJAE)*, 6(1), 1-7.

Oliver, O., & Towers, S. (2021). Define quality. *Assessment and Evaluation in Higher Education*, 18(1), 9-34.

Pacific Policy Research Centre. (2020). *21st century skills for students and teachers*. Honolulu: Kamehameha Schools, Research & Evaluation Division.

Saidu, S., & Saidu, S. S. (2021). Impact of curriculum resources on curriculum implementation in Nigeria. *Journal of Education, Arts and Humanities*, 3, 59-63.

Simmons, H. (2021). Quality and recognition in higher education: The cross-border challenge. Paris.