ADAPTATION OF ICTS AS PEDAGOGICAL TOOL FOR EARLY YEARS' IGBO LANGUAGE DEVELOPMENT AND CLASSROOM INSTRUCTION: A STUDY OF SELECTED PRIMARY SCHOOLS IN ANAMBRA STATE, NIGERIA

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Abstract

The importance of integrating ICTs in education for 21st century teaching and learning is over emphasized. Integration of ICTs in the language instructional classroom especially among the early childhood learners also remains very imperative. This is because the ICTs have great impact on nearly every aspect of the early years' lives. This ranges from acquiring and developing appropriate language that improves their working and socialization; and also their learning to play. The study examined the integration of ICTs in the Igbo language development and classroom instruction of early childhood learners in some selected primary schools in Idemili South of Anambra State, Nigeria. Descriptive survey was used in carrying out the study. Questionnaire and Checklist were the instruments used in data collection. Study population comprised all private and government - owned primary schools in Idemili South Education District in Anambra State, Nigeria. Simple random sampling technique was used to select ten private as well as ten government – owned primary schools. One hundred primary school teachers constituted the participants for the study and five teachers were selected from each school using stratified random sampling technique. Descriptive statistical tool was also used in analyzing the data obtained. Findings revealed the availability and integration of ICT tools to enhance the Igbo language development and academic achievement of early childhood learners; and that some teachers reported poor ICT skills competence. Recommendations were made from the study findings: that the Nigerian government and private school owners should fully equip primary schools with necessary ICT tools so that no child should be left behind in this digital and technology driven era. Again, the teachers should improve on their ICT skills competence to enable them make use of ICTs during classroom teaching and learning especially for the Igbo language development and classroom instruction of their learners in the early years.

Keywords: ICTs tools; ECE Igbo language teachers; ICT skill competence; Igbo language development

Introduction

Information and Communication Technology (ICT) remains a compelling force that creates an engaged learning environment in education, which also enables learners to acquire skills and become technicians with constant enthusiasm for learning. Thus, integrating technology makes learners to become engaged in learning through problem solving, reflecting, synthesizing, evaluating and continuously applying their own skills. Teachers need to be fully aware of the technology as being a stepping stone to build upon the learning environment. They should ensure that the prior learning experiences are appropriate and related to the concept to be taught which also calls for the importance of laying the ground work for future gained knowledge (Pange, 2008). It was noted that children born from 1982 have different relationship with information and learning than children of previous years and as such some pedagogical skills/approaches for non-digital natives may no longer be relevant to these digital natives (Prensky, 2001). Information and Communication Technology (ICT) performs very important function in global development. It helped in achieving social, economic, educational, scientific and technological development in many nations (Adesoji, 2012).

ICT may be taken to include a wide range of hardware and software, such as desktop, laptop, and handheld computers; digital cameras and digital video cameras; creativity and communication software and tools; the Internet; telephones and mobile phones; tape recorders; interactive stories; simulated environments; computer games; data projectors; and electronic whiteboards, among others. ICT is therefore regarded as essential in providing children with unique intellectual experiences and learning opportunities and has become an integral component of early childhood educational development (OECD, 2011). The use of ICT in Early Childhood Education (ECE) has been shown to support the attainment of learning objectives while making learning more authentic, engaging, and effective (Plowman, Stephen, & McPake, 2010). Bybee and Kennedy (2005) further suggest that early exposure to ICT encourages children to ask questions, think critically, experiment, and develop reasoning skills. When appropriately integrated into classroom curricula and daily practices, ICT can accelerate early childhood learning. It may also stimulate learners' attention, make instruction more engaging through digital games, and promote cultural exchange through online discussion platforms (Pange, op. cit.). Several studies have demonstrated that ICT contributes positively to the development of children's skills and competencies in early life (Price, 2009; Reed & Canning, 2010; Byron, 2008).

Despite these benefits, some studies indicate that excessive or inappropriate use of ICT may alienate early childhood learners from meaningful learning experiences and may result in reduced communication, lower academic performance, diminished concentration, and behavioural challenges (Lee, Bartolic, & Vande Water, 2009; UNESCO, 2004). Nevertheless, technology should not replace essential developmental activities such as creative play, real-life exploration, physical activity, outdoor experiences, conversation, and social interaction. Rather, it should be used to support learning and expand early childhood learners' access to new content (Guernsey, 2011).

Language development occurs rapidly within the first five years of life through interaction with parents, teachers, and caregivers. Children's language grows as they are exposed to new vocabulary and as familiar words are used in new and varied contexts. To enhance early childhood learners' language and educational development, ICT tools should be employed as pedagogical resources during classroom instruction. In Nigeria, awareness and use of ICT tools are relatively recent developments; however, their adoption is increasing steadily.

Children and young people increasingly have access to computers, particularly in urban areas. Consequently, the use of ICT as a pedagogical tool for early childhood language development and education has become imperative. The Federal Republic of Nigeria (2004) emphasizes that government should provide facilities and infrastructure for the promotion of ICT at all levels of education. UNESCO (2004) similarly reports that learning with ICT can be enjoyable, efficient, and capable of producing improved learning outcomes while also accommodating individual learner differences. Abimbade, Aremu, and Adedoja (2003) found that the use of computer software enhanced children's reading processes, encouraged peer interaction, and promoted decision-making, reasoning, and critical thinking skills. Okudo and Ifeagwazi (2014) also reported that ICT programmes improved students' knowledge of Igbo language and culture. Oloja, Adewumi, and Ajisolamu (2012) observed that the introduction of information technology into the educational system aims to improve instructional delivery and prepare learners for participation in an information-based economy. Similarly, Okudo and Omotuyole (op. cit.) found that enriching early childhood learning environments with ICT-based play materials had a positive effect on learners' language performance. They recommended that early childhood education should be structured around activities that reflect children's needs, interests, and natural inclinations.

Considerable emphasis has been placed on the role of ICT in early childhood education and classroom instruction globally (Dudeney & Hockly, 2007). Early childhood educators are therefore expected to develop awareness and competence in integrating ICT into daily instructional practices and to remain current with emerging technological innovations in order to meet the demands of the

21st-century, technology-driven society (Churchill, 2007). The role of ICT in language teaching and learning at the early childhood level includes supporting language development, enhancing curriculum implementation, and transforming instructional approaches (Burnett, Dickinson, Merchant, & Myers, 2006). Studies on academic outcomes indicate that technological tools positively influence children's development and motivation in language learning by providing access to authentic materials, promoting interaction, and allowing learners to regulate the pace and sequence of their learning activities (Dudeney & Hockly, 2007; Chapelle & Jamieson, 2008). Consequently, the integration of ICT in language teaching and learning reflects a more realistic approach to language and cultural acquisition while also increasing learners' motivation (Okudo, op. cit.).

This study therefore investigates the integration of ICT as a pedagogical tool for early childhood Igbo language development and education in selected primary schools in Idemili South Local Government of Anambra State, Nigeria.

Problem Statement

The Nigerian educational system continues to pursue improvement through the integration of ICT into education and training with the major purpose of restructuring instructional practices. However, teachers exhibit differing perceptions regarding the role of ICT in early childhood classroom instruction, as well as variations in their willingness and ability to utilize it. As a result, some early childhood educators and school administrators do not fully recognize the importance of integrating ICT into early childhood instructional practices. This study therefore examines the use of ICT as a pedagogical tool for early childhood learners' Igbo language development and classroom instruction.

Purpose of the Study

The purpose of this study was to examine the use of ICT as a pedagogical tool for early childhood learners' Igbo language development and classroom instruction. The specific objectives of the study are to:

determine early childhood language teachers' perceptions of the role of ICT in Igbo language development and classroom instruction;

investigate the level of early childhood language teachers' ICT competence for using ICT as a pedagogical tool during classroom instruction; and

identify strategies for improving the use of ICT as a pedagogical tool in early childhood learners' classroom instruction for Igbo language development.

Research Question

The following research questions were also raised for the study.

- What are the early childhood language teachers' perceptions on the use of ICTs for the Igbo language development and classroom instruction of their learners?
- What are the levels of the ECE Igbo language teachers' ICT competence skills for the use of ICTs as pedagogical tool during classroom instruction?
- What are the strategies for improving the use of ICTs as pedagogical tool for early childhood learners' classroom instruction for the Igbo language development?

Data Presentation and Results

Data collected from the survey were analyzed using descriptive statistics, specifically frequency counts and percentages. Tables and simple percentage distributions were employed to present and interpret the data.

Research Question 1:What are the early childhood language teachers' perceptions on the use of ICTs as pedagogical tools for the Igbo language development and classroom instruction of their learners?

Table 1 ECE Igbo Language Teachers' Perceptions of the Use of ICT as Pedagogical Tools for Igbo Language Development and Classroom Instruction

Item	Statement	Strongly Disagree (%)	Disagree (%)	Agree (%)	Strongly Agree (%)	Total (%)
1	ICT tools encourage self-learning and self-discovery.	4	8	46	42	100
2	Pupils are willing and eager to learn language when they have adequate access to ICT tools.	7	5	42	36	100
3	Pupils with access to tablets, computers, and electronic toys learn languages faster and are more motivated.	9	9	39	43	100
4	The use of computers and projectors during instruction enhances language development and makes learning more practical.	7	13	35	45	100

Note. **Percentages are based on responses from ECE Igbo language teachers (N = 1_{00}).**

Table 1 indicates that 4% and 8% of the respondents disagreed with the statement that ICT tools encourage self-learning and self-discovery, whereas 42% and 46% agreed and strongly agreed with the statement, respectively. Regarding the statement that pupils are more willing and eager to learn language when they have adequate access to ICT tools, 7% and 5% strongly disagreed and disagreed, respectively, while 36% and 42% strongly agreed and agreed with the statement.

Furthermore, 9% strongly disagreed and 9% disagreed, whereas 43% and 39% strongly agreed and agreed that pupils who have access to tablets, computers, and other electronic devices learn language more quickly and effectively and show greater motivation and interest during lessons.In addition, 7% and 13% strongly disagreed and disagreed, respectively, while 35% and 45% agreed and strongly agreed that the use of computers and projectors during classroom instruction enhances language development and makes learning more practical and meaningful for early childhood learners.

Research Question 2: What are the levels of the ECE Igbo Language teachers' ICT Competence Skills for the use of ICTs as pedagogical tool during classroom instruction?

Table 2: *Levels of ICT Competence of ECE Igbo Language Teachers*

Item	ICT Skill Area	High (%)	Average (%)	Low (%)	Not at All (%)
1	Starting and logging off a computer	5	5	45	45
2	Keyboard skills and handling the mouse	5	5	45	45
3	Inserting and ejecting CDs from a computer	5	10	45	40
4	Use of videos and audio players for instructional purposes	0	10	75	15
5	Use of ICT software on a personal computer for teaching	0	10	50	40
6	Use of computer simulations to simplify abstract topics	5	10	60	25

Note. **Percentages are based on responses from ECE Igbo language teachers (N = 1_{00}).**
Table 2 shows the basic ICT skills competency levels of the ECE Igbo language teachers. The results indicate that majority of the teachers reported a low competency level in starting and logging off a computer, keyboard skills and handling the mouse comprising 5% and 5% that showed high and average while 45% and 45% reported low and not at all competency levels respectively.

On the inserting and ejecting CDs in computer, 5% shows high 10% - average while 45% and 40% responded low and not at all respectively. Use of videos, audio players sound for movies and music – None show high competency level, 10 – average level while 75 and 15 shows Low and Not all competency level respectively. Use of ICT software as pedagogical tools on personal computer for teaching – None reported high competency level, 10-average while 50% and 40% reported Low and Not at all level respectively. Finally, on the use of computer simulations to make abstract topic easy – 5% and 10% reported high and average level respectively while 60% and 25% reported Low and Not at all levels respectively. From the results, it can be deduced that majority of the ECE Igbo language teachers reported a poor ICT skills competence.

Research Question 3: **What are the strategies for improving the use of ICTs as pedagogical tools for early childhood learners' classroom instruction for the Igbo language development?**
Table 3: Strategies for Improving the Use of ICT as a Pedagogical Tool for Early Childhood Learners' Classroom Instruction in Igbo Language Development

Item	Statement	Strongly Disagree (%)	Disagree (%)	Agree (%)	Strongly Agree (%)	Total (%)
1	Most ECE pupils possess basic ICT competence skills.	16	30	41	13	100
2	Reinforcement of teachers who use ICT materials will improve lesson delivery.	6	4	54	36	100
3	The use of games, video players, television, and the Internet motivates pupils to learn more.	9	10	35	46	100
4	ICT materials should be easily accessible.	3	3	59	35	100
5	Availability of ICT facilities in schools improves effective lesson delivery and language development.	4	9	52	35	100

Note. **Percentages are based on responses from ECE Igbo language teachers (N = $1_{0\,0}$).**

Table 3 shows that 16% and 30% of the respondents strongly disagreed and disagreed, respectively, that most early childhood learners possess basic ICT skills, whereas 13% strongly agreed and 41% agreed with the statement. Concerning, reinforcement of teachers who use ICT materials, 6% and 4% of the respondents strongly disagreed and disagreed, respectively, while 36% strongly agreed and 54% agreed. This indicates that approximately 90% of the respondents supported reinforcement of ICT-using teachers as a strategy for improving lesson delivery.

Concerning the motivational role of ICT tools, 9% and 10% of the respondents strongly disagreed and disagreed, respectively, that the use of games, video players, television, and the Internet motivates pupils, whereas 46% strongly agreed and 35% agreed. This suggests that about 81% of the respondents believed that ICT tools enhance learners' motivation during language instruction.

Furthermore, 3% and 3% of the respondents strongly disagreed and disagreed, respectively, with the view that ICT materials should be easily accessible, while 35% strongly agreed and 59% agreed. This implies that approximately 94% of the respondents supported the accessibility of ICT materials as essential for effective lesson delivery and language development. Finally, 4% and 9% of the respondents strongly disagreed and disagreed, respectively, with the statement that availability of ICT facilities improves lesson delivery and language development, whereas 35% strongly agreed and 52% agreed. This indicates that about 87% of the respondents perceived adequate ICT facilities as critical for improving early childhood language instruction

Discussion

The findings revealed that ECE Igbo language teachers generally exhibit low levels of ICT competence for use in the Igbo language development during early childhood classroom instruction. Most respondents reported low competence in basic computer skills, including starting and shutting down a computer, keyboard and mouse handling, inserting and ejecting CDs, using videos, games, and audio players, employing ICT software for teaching, and applying computer simulations to simplify abstract concepts. These findings fall below the ICT competency standards for teachers stipulated by UNESCO (2004).

The study further indicates that most ECE Igbo language teachers recognized the need to improve the use of ICT as a pedagogical tool for Igbo language development. Respondents emphasized the importance of making ICT materials available and easily accessible in schools. They also identified the need for recruitment and reinforcement of teachers with basic ICT competence. In addition, systematic training, innovative instructional strategies, and integrative teaching approaches were considered necessary for enhancing instructional quality and teacher preparedness in early childhood education. These findings support the views of Chapelle and Jamieson (2008) and UNESCO (2004), who assert that ICT competence has become an essential component of modern education alongside literacy and numeracy.

The results further suggested that ICTs integration has significant implications for Igbo language instruction, particularly in facilitating repetitive practice and increasing learner engagement. Continuous training and retraining of ECE Igbo language teachers are therefore necessary to ensure effective integration of ICT materials for improved Igbo language development and lesson delivery.

Recommendations

Based on the study findings, the following recommendations were made:

1. Government and school authorities should organize regular training programmes, workshops, and seminars for ECE Igbo language teachers on the use of ICT for instructional purposes.
2. Schools should be adequately equipped with ICT facilities and ensure that such facilities are accessible for classroom use.
3. Teacher education institutions should integrate ICT-based pedagogy into their curricula for ECE Igbo language teacher preparation.
4. ECE Igbo language teachers should employ varied instructional strategies that align with learners' needs, abilities, and interests

Conclusion

This study concludes that ECE Igbo language teachers demonstrate generally low levels of ICT skill competence for use in the Igbo language development during early childhood classroom instruction. Consequently, teacher training institutions should make computer literacy a compulsory component of ECE teacher education programmes. This is particularly important given that teachers acknowledged that the use of computers and projectors enhances Igbo language learning and makes instruction more practical and meaningful.

Furthermore, relevant government agencies and educational stakeholders should provide sustained professional development opportunities to improve teachers' instructional practices. Curriculum developers should incorporate ICT tools as an integral part of Igbo language teaching in early childhood education. This will enable learners to acquire essential ICT knowledge and skills required for success in a rapidly evolving and competitive global economy. Ultimately, the integration of ICT into early childhood Igbo language instruction will contribute to the development of creative, competent learners, critical thinkers and capable of meeting the challenges of the 21st-century, technology-driven society.

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