



DEPLOYING 21ST CENTURY LITERACY SKILLS IN LANGUAGE PEDAGOGICAL INSTRUCTIONS FOR SUSTAINABLE DEVELOPMENT.

MONICA NNENNE OKAFOR, Ph.D¹

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INNOCENT NJOKU NWEZE, Ph.D²

Department of English,^{1&2}
Ebonyi State College of Education, Ikwo,
Ebonyi State, Nigeria.

Abstract

The main objectives of this paper were to expose and examine various 21st century literacy skills which enhance language-teaching and learning as well as engage sustainable development in a changing world. Built around the Functionalist Language Teaching Approach and the Sustainable Development Theory, the paper used the analytical method to project its thesis. The key finding of the study was that effective integration of digital literacy, critical thinking, creativity, collaboration, and global awareness into classroom practices will not only improve learning outcomes but also prepare learners to contribute meaningfully to the attainment of the Sustainable Development Goals (SDGs). The study concluded that language teaching, when enriched with 21st century literacy skills, will transform both pedagogical and learner outcomes and equip learners to become innovative thinkers, responsible citizens and active contributors to sustainable societies. The paper, therefore, recommends, inter alia, that the literacy instructor or educator be trained to master and utilize current 21st century pedagogical skills in the classroom in order to bring about sustainable development, socio-economically, educationally, and otherwise, in Nigeria.

Keywords: 21st century literacy skills, sustainable development and pedagogical instruction.

Introduction

Going by earliest records, literacy is perceived to be peculiar to reading and writing. Ayodele (2023) avers that literacy refers to a wide range of skills and abilities related to listening, speaking, reading and writing. Jibowo and Omotosho (2023) see literacy as one of the dividends of education and define it as the ability to read, write and communicate effectively with others. In support of Jibowo and Omotosho, Kolawole et al (2013) believe that literacy is the application of reading, writing and numeracy skills in an individual's day to day context. According to them, literacy highlights the ability to read and write at a level whereby individuals can effectively understand and use written communication in all media, (Print and electronic), including digital literacy.

There has been a remarkable shift in the way

literacy is viewed in the 21st century. Unlike the previous centuries when literacy was defined merely as the ability to read and write, the prevailing realities of our time demands more complex skills to navigate digital, economic, environmental and socio-cultural landscapes .(Trilling & Fadel,2009) . The increasing interdependence of nations, the rapid development of technology, and the urgency of sustainable concerns have made it necessary for education to focus not only on knowledge transmission but also on empowering learners with transformative skills. Pedagogical instruction -the art and science of teaching- remains at the centre of this transformation. The UNESCO (2009-2014) has discussed literacy not just in reference to teaching practices in school but in reference to the meaning of literacy across the world.



Hence, Abia (2012) argues that the functional perspective of literacy implies the ability of an individual to read and write and also use the skills of reading and writing for daily living. In other words, one who is literate should be able to read, write and use those skills to provide for his daily needs and also solve problems around him that affect his well being as an individual and that of the society to which he belongs.

In furtherance of Abia's position, Aruma (2014) maintains that literacy provides the individual with clear knowledge of what is happening and how they can contribute to the growth and sustainable development of society. From the foregoing, literacy has gone beyond only reading and writing and one can talk about other forms of literacy.

Education has always been central to human development, but there has been a reshaping of the concept of education. The new shape of education takes literacy beyond reading and writing to include digital, media, information, and global competencies.

The central theme of this discussion is grounded in the assertion that specialized and appropriate model that respects the rapid pace of technological advancement as witnessed in the 21st Century as against traditional pedagogical models should be deployed in pedagogical expressions in the contemporary classroom for imparting literacy skills, especially as it concern language teaching. Traditional pedagogical models prove to be significantly inadequate in inculcating skills of literacy in the age of technological advancement. Okafor (2013) reveals that the increasing demands or modernization of both oral and written form of language in response to the challenges of globalization places a question mark on the productivity of the contemporary teacher of language who still uses traditional instructional materials in the discharge of their pedagogic function.

The world is gradually transiting from the traditional reading and writing in schools to highly components of literacy for societal

development. The challenges of the 21st century require an urgent transformation of education. In many parts of the world, particularly in developing countries, the traditional pedagogical practices exemplified by rote learning, memorization, and examination - driven curricula still dominate classrooms (Ogunode, 2021). These approaches obviously discourage critical thinking, innovation, and global competitiveness. Whereas the present era demands digital literacy, problem solving abilities, environmental consciousness and intercultural competence, many systems of education regrettably still continue to focus on reading, writing and arithmetic. These discrepancies between the current societal demands and what schools offer undermine the capacity of education (UNESCO, 2015). Thus, with the apparent absence of the 21st century skills in pedagogical instruction, achieving the United Nations Sustainable Development Goals (SDGs), will be a far cry.

Concept of 21st century Literacy Skills

Traditionally, literacy was understood to mean the ability to read and write, however, there has been an expansion of the definition in the 21st century to include a wide range of skills and competencies required to thrive in knowledge-driven and globalized society.

Amina (2014) claims that in order to enable participation, the individual must possess a repertoire of multiple literacy, which encode social practices integral to the development of society. He enumerates the multiple literacy to include critical literacy, digital literacy, media literacy, civic literacy, information literacy, cultural literacy, financial literacy, scientific literacy and technological literacy. The partnership for 21st century Learning (P21, 2009), groups these skills and competencies into three core categories:

1. Learning and innovative skills:-critical thinking, communication, collaboration creative, and creativity.
2. Information, media, and technological skills:-digital literacy, ICT competence, and media analysis
3. Life and career skills:-flexibility, initiative, social responsibility, and cross-



cultural awareness.

According to Griffin & McGaw(2012), these skills are essential for preparing learners for unpredictable futures and equipping them to solve complex global problems. Essentially, digital literacy enables learners to access, evaluate, and create information responsibly in a technology- saturated world (Ng, 2012). Similarly, creative thinking empowers them to interrogate knowledge, challenge assumptions, and proffer sustainable solutions.

Our focus in this paper is on the three categories of skills and competencies enumerated above, particularly on Learning and Innovative Skills, and Information, Media and Technological skills which are requirements for transformative language teaching in the 21st century.

The aim of this paper therefore, is to examine various literacy skills for language instruction, expose the need to re-kit the literacy educator with 21st century pedagogical tools for optimum performance in the classroom and to explore the place of literacy skills in sustainable development.

This paper is framed around the theory of Communicative /Functionalist approach to language teaching (CLT). The Functionalist or Communicative approach to language teaching emanates from the principles that: language is use and so teaching a language means teaching the appropriate use of the language in contexts. Supported by modern theories of learning and teaching in general and modern methods of teaching language perse. CLT or the functional approach grew out of the dissatisfaction with the Audio-lingual and Grammar Translation Methods of second language instruction. Proponents such as Dell Hymes, 1972, Michael Halliday, 1973,1978, felt that language always changes and adapts to the needs of its users. Changes in technology and industry often fuel the need for new words. Functionalist theory of language proposes that since language is fundamentally a tool, it is reasonable to assume that its structures are best analyzed and understood with reference to the function they

carry out. The second theory upon which this study is built is the Sustainable Development Theory popularized by Brundland Commission (1987) This theory provides the framework for understanding how education can meet the needs of the present while safe- guarding future generations. The theory underscores inter-generational equity, environmental stewardship and social justice. In relation to education, this translates into integrating environmental literacy, global citizenship and ethical responsibility into teaching and learning, (Sterling, 2010). Together these theories affirm that effective pedagogy in the 21st century must not only transmit knowledge but also cultivate the skills, values and attitudes necessary for creating a sustainable future. Given that this paper advances that literacy skills have gone beyond reading and writing although these are essential components of literacy, today our understanding of literacy encompasses much more. Literacy therefore is the ability, confidence, and willingness to engage with language to acquire, construct and communicate meaning in all aspects of daily living.

Deploying the 21st century Literacy Skills in Pedagogical Instructions

The 21st century is a dynamic and complex era characterized by technological innovations, globalization and growing emphasis on sustainability and social justice. The main features of the 21st century are digital transformation, the widespread adoption of the computer and the internet which has fundamentally changed how we communicate, work and live. Artificial Intelligence and machine learning are transforming industries and automating tasks that were once thought to be exclusively human. Social media platforms have connected people worldwide, and so on (Agbodele, 2023). Agbodele reveals that in today's 21st century, literacy is conceived not just as the ability to read and write but also as the ability to identify, understand, interpret, create communicate and compute using printed and written materials associated with varying contexts.

The introduction of digital pedagogical



communication works a transformative shift in language teaching and learning process, encompassing a wide array of digital tools, platforms and methods aimed at enhancing literacy skills' acquisition. Moorhouse and Yan (2023), claim that digital tools provide dynamic and interactive means for practicing and developing language skills. Digital pedagogical communication offers interactive and engaging learning experience scattering to the tech-savvy generation of students (Haleen, et al 2022).

Simiderle, et al (2020) aver that the incorporation of multi-media content, gamification and collaborative online activities not only make learning more appealing but also education. Digital learning tools offer opportunities for learners with varying needs and abilities promoting inclusivity and accommodating a broader spectrum of students (Sarcic, 2010).

Digital pedagogical communication broadens the pools of resources available to both the literacy teacher and learner. It provides access to a plethora of digital content, including e-books, online libraries and language learning apps enriching the learning experience and diversifying available materials. In addition, digital tools facilitate immediate feedback and assessment allowing teachers to monitor learners' progress more effectively. Adaptive learning platforms can tailor instructions to individual learner's need fostering a personalized learning experience.

21st Century Literacy Skills and Language Teaching

As earlier stated, 21st century Literacy skills go beyond reading and writing. They include critical thinking, communication, collaboration, creativity, digital literacy, media literacy, cultural awareness, and problem solving. These skills affect the teaching of language in the ways enumerated below:

Digital Literacy and Technology Integration

Digital literacy is the ability to access, use, evaluate and communicate through digital platforms. Digital platforms refer to the internet and all the devices that allow a person to access

the internet. Sometimes digital literacy may be referred to as cyber literacy; however, digital literacy is a term that is used more widely. A digitally literate person is able to effectively use technology to find information, evaluate the information and bring the information into their physical life. Language teaching now incorporates AI-powered tools, online dictionaries, translation soft ware, apps, and digital classrooms. Students are trained to navigate online information, evaluate credibility, and use digital platforms for communication. For example, language students are exposed to the use of blogs, podcasts, and multimedia presentations in order to practice reading, writing and speaking skills. This aligns with the growing need for learners to critically evaluate online information and navigate global communication networks (Ng, 2012). Technological literacy is the ability to use, comprehend, manage and analyze technology safely, effectively and responsibly (Oyinloye, 2013). It also involves using technology to evaluate, create and integrate information. The use of technological literacy includes creating content, posting to social media, making a YouTube video and writing blog posts. It also covers simple communication with friends, family, associates, co-workers and people who may share one's interest.

Critical Thinking and Problem-Solving

Beyond memorization and rote learning, students are also encouraged to analyze, interpret and apply language in real-world contexts. Activities such as debates, discourse analysis and text evaluation nurture critical thinking while enhancing linguistic skills. To corroborate Trilling and Fadel (2009), language teaching should prepare learners for complex problem-solving in diverse communicative settings. Melbourne (2018) put it that critical literacy is a central thinking skill that involves the questioning and examination of ideas and requires one to synthesize, analyze. Interpret, evaluate and respond to texts read or listened to. It is a process whereby readers challenge the power relationship that exist between author and reader. Shor (1999) has noted that critical literacy is a kind of literacy involving the use of words to think worlds and self-dissent in society.



Individuals redefine themselves and remake society through critical literacy. The critical literacy skill is one of the important abilities of young learners that should be developed from primary school. This will enable them to respond intelligently to various kinds of information around them. Critical literacy in the 21st century is important, it encourages individuals to understand and question the attitudes, values and belief of written

Collaboration and Communication

In language education, collaborative learning has become central featuring group projects, peer editing, and digital communication tools such as (Google docs, Zoom), learners also develop both linguistics and interpersonal skills. Such collaboration mirrors real-world communication needs, where teamwork and global interaction are essential (Partnership for 21st Century Learning, 2019)

Creativity and Innovation

Learners are expected to produce original language content through storytelling, drama, role play, blogging, and digital media creation. This makes language learning more meaningful and personalized and also fosters deeper engagement. (Richards, 2025). With these, teachers shift from rote learning to project-based and task-based instruction.

Media and Information Literacy

In this era of much exposure to varied text-social media posts, movies, online articles and advertisements, there is the need for learners to critically decode meaning, identify bias and evaluate sources. Language teaching thus integrates critical media as part of reading and comprehension tasks. (Hobbs, 2010)

Global and Cultural Awareness

21st century pedagogic instructions prepare learners for meaningful participation in multi-cultural and multilingual contexts as they learn how to navigate, not only grammar and vocabulary, but also diverse world views and communication styles. Language itself is tied to culture and this demands that students be culturally competent.

The infusion of 21st century literacy skills into language teaching has transformed both pedagogy and learner outcomes. Teachers are no longer mere transmitters of knowledge but facilitators of creativity critical inquiry, and global communication. By integrating 21st century literacy skills into pedagogical instructions learners are better equipped with tools for lifelong learning and societal development.

Sustainable Development and 21st century Literacy Skills

Sustainable development is a kind of development that meets present needs without compromising the ability of future generations to meet their own needs based on the primary objective of reducing absolute poverty of the world through the provision of lasting and secure livelihood that minimizes resources depletion, environmental degradation, cultural disruption and social instability (Ekwuru, 2016). Sustainability also refers to long-term human and material sustenance. It implies the continued existence of the benefits of developmental programmes and projects long after they have been commissioned, and the guarantee of success in the efforts towards the elimination of unemployment, poverty, environmental degradation and constraints to the increase in human welfare and self-reliance.

Development in general is a multi-dimensional process involving positive changes in the social structure and improvement in quality of life resulting in the reduction of inequalities (Okafor and Noah 2014). As posited by Okafor and Noah (2014:279) 'development is a form of social change that will lead to progress, the purpose of enlarging people's choices, acquiring knowledge and having access to resources for a descent standard of living and condition for moving from worse to better'. Okafor and Noah also express that sustainable development depends on the shared vision communicated in language ultimately and leading to creation of livable environment for the present and future generation across the globe.

Ayodele (2023) reveals the target of Nigeria's



sustainable development goals (SD) as to ensure that all youth and a substantial proportion of adults, both men and women achieve literacy and numeracy by 2030. Going further, the broad objective of SDG is to promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institution at all levels to ensure responsive, inclusive, participatory and representative decision making at all levels.

The expectation of SDG is that functional literacy will serve as a critical tool in human development and sustainability of systems, mechanism and structures of governance. So, the acquisition of critical literacy is a necessary condition for citizens' participation and involvement in sustainable societal transformation. Critical literacy would focus on the Production of knowledge/power, and enable questions that will lead to a better understanding of social practices, thereby prompting actions that would bring about change.

In the 21st century, knowledge in the use of digital technological and critical literacy would Place both the teacher and the learner at par with their counterparts around the globe bringing about exchange in ideas.

Challenges to Deploying 21st century Literacy Skills

Deploying the 21st century skills in language pedagogical instructions for sustainable development are a noble goal but not without challenges. These obstacles often stem from structural pedagogical and socio-cultural constraints. The challenges include but not limited to the ones listed hereunder:

1. Limited access to ICT infrastructure:

One of the pressing challenges is inadequate access to digital tools and infrastructure, especially in developing nations. Many schools lack reliable sources of power supply, internet-connectivity, and computer systems. These limit teachers' ability to integrate digital literacy into lessons (Livingstone, 2012).

2. Inadequate Teacher Training:

Teachers often lack skills, and competencies needed to deploy 21st century literacy skills effectively. Without professional development ,they may revert to traditional teacher-centered method.(Ananiadou& Claro,2009)

3. Examination Oriented Curricula:

In many educational systems, the curricula still largely revolve around examination dominated instructions. This encourages rote learning/ memorization instead of creative thinking and creativity (Ogunode,2021).Examination oriented curricula hinders innovative and experiential learning.

4. Resistance to Pedagogical Change

Some educators and policy makers resist adopting new methods, preferring traditional practices due to familiarity or fear of failure. This cultural inertia slows down the integration of innovative pedagogy (Saavedra & Opfer,2012).

5. Socio-economic Inequalities

The socio-economic discrepancy between the rich and the poor creates unequal access to quality education. Learners from poor backgrounds may lack access to resources such as books, internet facility or even parental support. Thus, hindering their ability to develop 21st century literacy skills (UNESCO, 2015).

To address the above challenges, the following actions are recommended: curriculum reform, investment in ICT, continuous teacher- training, inclusive educational policies and effective change in management strategies to support innovative pedagogy.

Conclusion /Recommendations

In the dynamic landscape of education in Nigeria, and the unprecedented advancement in technologically innovative ,digital pedagogic communication, the integration of digital pedagogy has emerged as a transformative force, revolutionizing the teaching and learning paradigms. The fusion of technology and pedagogical principles offer unparalleled opportunities to re-kit literacy educators for a



world of digital pedagogical instruction, promising greater efficiency and effectiveness in literacy instruction. This paper examined various literacy skills, exposed the need to retool the literacy educator with 21st century skills. The paper concludes that the introduction of digital pedagogical instruction in teaching literacy would work a transformative shift in literacy education and will enhance literacy education and literacy skills acquisition. This would in turn make learning more appealing and effective.

As the digital landscape continues to evolve, educators, policy makers and stake holders must remain dedicated to adaptation, innovation and the assurance that digital pedagogy flourishes in the service of enhancing proficiency in literacy and numeracy.

Based on the foregoing, this paper makes the following recommendations which offer a comprehensive plan to advance the integration of digital pedagogy in teacher education especially within Nigerian context, focusing on literacy skills acquisition.

i. Government Policy Framework: It is imperative that the government proactively establishes a comprehensive policy framework to promote and support seamless integration of digital pedagogy within teacher education. These policies should prioritize the ubiquity and accessibility of digital learning tools within

educational institution.

ii. Enhanced Professional Development: Educational institutions and teacher- training programmes must prioritize the facilitation of robust professional development opportunities for literacy educators, these initiatives should encompass specialized training aimed at effectively incorporating digital pedagogy into their instructional practices. Workshops, courses and certification programmes should be made available to educators to enhance their proficiency in technological utilization.

iii. Technological Infrastructural Enhancement: To expedite the widespread embrace of digital pedagogy, substantial efforts should be directed towards the amelioration of technological infrastructure within educational institutions.

iv. Monitoring and Evaluation Framework: The establishment of a robust and coherent monitoring and evaluation framework is of paramount importance to assess the efficacy of digital pedagogy in teacher education. Regular assessment should be conducted to gauge the impact of digital tools on pedagogic instruction and student outcomes. A dynamic feedback mechanism must be instated to facilitate necessary adaptations and improvements.



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