

EDUCATION IN THE 21ST CENTURY: HOW TECHNOLOGY IS  
RESHAPING THE ENGLISH LANGUAGE CLASSROOM  
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**CHIBUOGWU Felicia Chike-Okoli, Ph.D**

School of Science and Technology Education,  
Federal University of Technology, Minna, Niger State  
E-mail: c.okoli@futminna.edu.ng  
Tel: 08039170872

### Abstract

*The 21<sup>st</sup> Century has ushered in tremendous changes in the education industry through the advent and proliferation of digital technologies. The English language classroom is not spared in this rapid transformation that is changing the roles of the teacher and the learner. These changes now demand new arrangements in the implementation of new educational curriculum design to align with the new world order which requires new skills to achieve the objectives of the evolving education transformation agenda. This has necessitated the adoption of the changes in the 21st Century education order and reflection on the English language school curriculum and pedagogies. Thus, the English language classroom has not remained the same as technology is now inventing new strategies of teaching and learning the subject. This paper examines the adjustments in the new education order and how technology is changing the education environment and reshaping English language teaching and learning in the secondary school. Appropriate recommendations were made towards proper adjustment to the evolving education order.*

### Introduction

The English language in Nigeria is a second language as well as the official language of communication and also the only means of interaction among the numerous ethnic and linguistic groups that made up the country. However, despite the importance of English language in Nigeria, especially in the education sector where it is the only language of instruction from the upper primary level to the tertiary level, less than 20% of Nigerians can claim to have adequate access to the language (Iwara, 2008). Among the students, there has been regular poor performance in English language results both in

internal and external examinations (Chikwendu, 2016).

Researchers have blamed English language teaching and learning problems and poor performance of students on such factors as poor linguistic background of students (Jibowo, 2007), poor teaching methods (Isiugo-Abanihe, 2002), lack of modern language learning facilities (Kolawole & Olatunji, 2006), among others. The old methods of instruction which were mostly teacher dominated and passive were adopted in tackling the problem of students' poor achievement in English language, irrespective of the language skills or area taught. Learners were meant to attentively listen to the teacher-models' dictates.

Before the 21st Century, language learning and education generally was rote and manual. The school curriculum was tied to the wisdom of the teacher while learner activities were mere replications of teacher generated or approved ideas based on rules of language learning and assumptions in education. At that time also, what was known as the classroom was an enclosure of brick and mortar while paper and pen were the major learning tools. It was the age of book and chalkboard. However, the 21<sup>st</sup> Century has something different to offer, transforming language learning with overdose of information through technology.

### The 21st Century Environment

The 21st Century started January 1st, 2001 and will end December 31st, 2100, according to the Gregorian calendar. Since 2001, the world has been witnessing changes in every aspect of human existence. There has been a lot of complexity in the socio-technological environment as a result of massive penetration and infusion of digital technology, in almost

every aspect of human activity. The economic order is not left out of this transformation that now requires individuals to acquire a set of new skills in transition from industrial to knowledge and information age. The complexity in the systems has placed new demands on the ability of individuals to engage in certain complex operations in line with the new order. This shift in global socio technological and economic order mandates individuals to seek for and arm themselves with new talents and expertise to succeed and survive in a job skill in line with the new demands. This would encompass a set of knowledge, skills, work habits and character traits believed to be critical for success in institutions of learning in contemporary careers and workplaces (Erdem, 2019). A combination of two or three of these skills is required in today's world of work for maximum competency.

Such salient skills of high value in today's world include:

- Learning skills - critical thinking, creativity, collaboration and communication
- Literacy skills - information, media, technology
- Life skills – flexibility, leadership, initiative, productivity, social skills (UNESCO, 2016)

The infusion of new technologies that has encompassed the information age has witnessed intensive and easy interaction with digital media tools and platforms, such as, smartphones and social media (Erdem, 2019). This has ushered in new lifestyle for people in a way that is completely different from the previous century. More significantly, the century marked a shift from material labour to immaterial, weightless processes/production for which process oriented skills, for instance, team work and collaboration are reader.

To be prepared for 21st century survival, learners require the ability to communicate well in speech as well as write and read English efficiently, engage in the arts, to enrich their lives and to develop love for learning so that they continue to grow and enrich their minds when their formal schooling ends. They should also develop ethical

and moral character and the social skills to collaborate fruitfully with others. The ability to use technology wisely, make and repair useful objects and engage in personal independent activities like playing musical instruments or writing/reading instrument for personal satisfaction and processing useful products would be useful skills to acquire (Halvorsen, 2018). Thus, digital tools are enabling the 21<sup>st</sup> century skills that are reshaping the ESL classroom and ruling the world of work today, thereby, necessitating their implementation in the English language classroom.

### **What is 21st Century education?**

21st Century education encompasses the educational system in which learners are actively shaping and taking charge of their learning. This is education that involves deeper quest for knowledge through integration of rigorous academic content with experiences that intentionally develop the skills, mindsets, literacies and values needed by students to become lifelong learners, capable of contributing to this ever-changing world. Hallerman, Lewis & Dresbach (2019) note that 21<sup>st</sup> century education is the type of learning environment that provides learners with the skills and competencies they need to thrive and respond to the economic, technological and societal shifts that are happening at an ever increasing pace. According to them, 21<sup>st</sup> century education is the learning that “Sets children up to succeed in a world where more than half of the jobs they will have over careers do not even exist”. Hence, Rich (2010) notes that 21<sup>st</sup> century education involves critical thinking and interpersonal communication skills to enable an individual to be successful in a fluid, interconnected and complex world, stressing that education can leverage technology to create an engaging environment to meet the emerging needs of this generation. No longer does learning have to be one-size-fit-all or confined to the classroom.

Specifically, 21st century education is characterized by the technological infusion into teaching and learning, thereby redefining learning using modern tools. The increase in complexity of social systems caused by rapid penetration of digital technology requires that all

those who live in the new global village and hope to work in the emerging global market develop the appropriate and commensurate complex mindset and skills currently offered by technology. This means that education in the 21<sup>st</sup> century should be the type that marries content to skills that learners can take with them for the rest of their lives. The major adjustment that must be made in education is the skills attachment to educational content which is one of the affordances of technology. The teacher is still teaching what he has always taught but using 21<sup>st</sup> century tools and technology. Similarly, the learner is learning what have always been learnt but using 21<sup>st</sup> century tools and technology and availability of information from different sources.

In view of this, the following developments are now emerging.

- a. Educational structure is moving from brick and mortar classroom to digital space, using mobile technologies (Gambari, 2021). The advent of e-learning has pulled down the many barriers to learning like geographical barriers, security issues, class size problem, race or ethnicity nationality problem, gender issues, distance and so on.
- b. Learning environment is going virtual / online because of the availability of digital resources, even as classrooms gradually lose their walls. So, teaching and learning could happen effectively outside via online, offline or blended, in both real and virtual spaces.
- c. Teaching approach is shifting from teacher centredness to learner centredness, from individualized to collaborative learning thereby creating learner networks and communities.
- d. Educational content is shifting from content-based to outcome-based.
- e. Delivery technology is moving from blackboard to whiteboard, to smart board to no board (mobile devices), from lecture notes to mobile devices for e-sharing, e-mailing, flash sharing, using social networking 'apps' like ipods, ipads, tablets, smart phones, among others.
- f. Learning devices are shifting from lecture notes to electronic resources, including texts, images, audio, video animation, thereby, making learning innovative and engaging, even extending to online communities. There are other learning mobile devices for e-sharing using social networking, Bluetooth, flash sharing, e-mailing, Google hangout, Google drive, drop box, and more.
- g. Performance assessments are shifting from pencil on paper (content based) to computer based assessment in school subjects. Assessment processes are changing from product assessments to process and product assessments as in many developed countries (Gambari, 2021). In school subject testing, computer based testing (CBT) which involves automatic electronic scoring machine uses artificial intelligence in its complex operations. Despite these technological developments in education, Eaton (2010) expressed that the possibility of future "apps" or some variations of mobile applications completely replacing textbooks is remote.

### **What the 21st Century education curriculum should be**

Education curriculum content may not have changed in the 21<sup>st</sup> century. What has changed, that is causing remarkable transformation in education is the infusion of modern teaching and learning tools into education. Thus, 21<sup>st</sup> century education curriculum generally would build on past conceptions of learning as "core knowledge in subject areas" and recast them for today's world where a global perspective, collaboration, creativity and critical thinking are really critical. The curriculum would set an ambitious agenda with modern technological tools, allowing learners to locate, acquire or create knowledge much more quickly than in the past. The 21<sup>st</sup> century education curriculum would be built on policies that would enable instant global communication and access to information through the internet, which holds the key to the new educational system.

To promote the 21<sup>st</sup> century skill-based education, curriculum would focus on asking questions to

encourage critical thinking, enquiry and reasoning. This would empower learners to evaluate, synthesize and translate ideas to solve problems and execute projects. Educational curriculum in the 21st century would be project-based to engage learners in addressing real world problems and issues of importance to humanity. In pursuance of this objective, it would abandon the textbook-driven, teacher centered, paper and pencil schooling. It would demonstrate a new way of understanding and defining the concept of knowledge, a new definition of the “educated person” and a new way of designing and delivering the curriculum. The 21st Century curriculum would be interdisciplinary, integrated and research driven. It would reflect the global nature of education and the classroom by infusing collaboration at the local, national and international levels to enable teachers and students to join or start any collaborative project with anyone in the world (Wu, 2014). In the 21st century curriculum, school would be transformed to a “nerve centre” with porous and transparent walls that connect teachers, learners and communities to the wealth of knowledge that exists in the world. This interconnectivity enables cross-breeding of ideas and information that enrich knowledge and development. The curriculum would provide for learners to acquire skills and content through practical application in their research projects rather than rote learning or being taught by the teacher. Knowledge would, therefore, cease to be mere memorisation of facts and figures but rather constructed through research and application by personal experience, prior knowledge, talents and interests.

In the 21st century curriculum, the teacher would be presented as a partner in the process rather than a repository of knowledge. The primary role of the teacher would be to orchestrate learning and help learners turn information to knowledge and knowledge to productivity and creativity. The teacher would also inspire and guide students in increasingly employable skills with the digital tools. He would be a facilitator of knowledge who sets up enabling environment for active knowledge and skills acquisition using appropriate technological resources. Learners under the 21st century curriculum would be those who would be enabled to see how their learning is

preparing them for life in the real world. Thus, provision would be made for learners to:

- a. Develop curiously as a fundamental element to lifelong learning.
- b. Adapt to flexible learning styles to be able to fit into their best learning mode.
- c. Become more resourceful and excited to acquire new skills to help them become more productive outside the learning environment. In this manner, they would learn to incorporate higher order thinking skills, multiple intelligences, technology, multimedia and multiple literacies.
- d. Embrace authentic learning that provides a wide variety of educational and instructional techniques that connect school learning to real world issues and problems through tasks. This is to bridge the gap between school learning and practical application for life after schooling.

In the 21st century educational curriculum, assessment of new knowledge would require demonstration of understanding of acquired skills through application of competencies rather than regurgitation of memorised facts and disconnected processes.

### **The English language classroom in the 21st Century**

The English language classroom we used to know is the one characterised and governed by stringent grammatical rules which observed strictness in grammatical “correctness” and expressions and emphasized memorisation learning from rote. The English language classroom of old depended heavily on teacher intelligence and textbook specifications. The “know it all” teacher was in charge and dictated what learners needed to know. However, the ESL classrooms today are expanding beyond physical walls that many teachers are accustomed to. The prevailing environment of the 21<sup>st</sup> century is impacting the classroom atmosphere in different ways. The technological impact of the 21<sup>st</sup> century is placing new demands that are changing the way teaching and learning are carried out.

As the world gets more interconnected through technology and the internet, language teachers

and learners are getting exposed to the global language learning hub where linguistic immersion and development of digital literacy skills are prevalent. The language education practices in the new digital learning environment operate in line with the developments in the rest of global education practices to meet the digital and skills development requirements of the new age. Language education in the 21st century is technology based in line with the prevailing global technological involvements in education.

There have been studies on the use of mobile technology for learning but as technology takes over the language classroom, old patriarchal, authoritative, expert centred approaches to teaching are out. Rather than language laboratories, audio and video exposure to foreign languages is readily available at little or no cost. Mobile Technology for learning, namely, MALL (Mobile Assisted Language Learning) is gaining more ground instead of CALL (Computer Assisted Language Learning) of 1980s and 1990s (Chinnery, 2006; Collins, 2005; Kukulska-Hulme & Shield, 2008). Wu (2014) outlined some ways technology is used to support teaching and learning English as a second language (ESL). However, in the 21st Century, there is technological outburst that has changed and is still changing the language learning space. These are digital tools on the internet that can support learning.

### **Technologies that are reshaping the English language classroom**

#### **The Internet**

The Internet is a system architecture that has revolutionized learning and communication by connecting computer networks all over the world. It is also known as “network of networks” but did not become well known until the early 1990s, though it appeared first in the US in the 1970s. Nowadays, people of different age groups conduct information searches as well as connect with friends, classmates, teachers, via email, skype, and more, via the internet (Castelacci & Tveito, 2018). The English language learner does no longer need to seek such knowledge from the classroom teacher or even textbooks when that learner can get more robust information from the internet. It is estimated that 4.5 billion people, or

more than half of the world's population will have access to the Internet by year 2020 (Sayakhot & Carolan-Olah, 2016).

#### **Social Media**

This is a type of electronic communication, such as, social networking websites and micro blogging, in which users create online communities to share information, ideas, contents in different learning fields (such as videos). Language learners, like other millions of people, connect and share information. By connecting with other language learning on-line communities, language learners can use social media to increase knowledge in language contents and expand language networks, thereby, strengthening learning. Social media forms include blogs, wikis, photo and video sharing websites, instant messaging, podcasts, widgets, virtual reality and more (Perrin, 2015).

#### **Virtual Class**

The virtual class, commonly referred to as online or e-learning. Is that learning environment that connects and allows teachers and learners to experience their education outside of a traditional classroom environment. The aim of this learning atmosphere is to replicate the experiences of a physical classroom in an online platform which connects teachers and learners from any location. In a virtual classroom, teachers and students can present course materials, engage and interact with other members of the virtual class, and work in groups together. A distinctive feature of the virtual classroom is that it takes place in a live, synchronous setting. Learners can raise hands to ask questions or even send texts to the teacher for clarifications of content. The virtual class has the capacity to offer immersive, collaborative, task-based and game-like opportunities for language learners. A major benefit of virtual learning is that it is more engaging than the physical class because passive and struggling learners can engage with other learners and access information in ways they would not or could not in a physical classroom. In the virtual language class, it is easier for learners to access their teacher and classmates and also upload assignments through a virtual world, e.g., [language lab.com](http://language lab.com).

Some institutions of learning in Nigeria are already keying in to virtual learning. The Federal University of Technology, Minna, is currently running online classes for all 100 level students, an experience which took off in the 2022\2023 academic session with very positive feedback. The teacher can hold lectures from any location just as students can also receive lectures from any location worldwide, even from their bedrooms.

### **Web Quests**

This is an enquiry-oriented online tool for learning. It is a classroom-based space in which most or all of the information that students need in any area of study, including English language, come from the World Wide Web (www). With adequate computer access, WebQuests provide unlimited resources that learners only need to use and not to look for information. WebQuests can address almost any topic based on enquiry focus and very useful to struggling learners and other learners of various academic abilities.

### **Podcasts**

Podcasts are prerecorded lessons which English language learners can listen to at their own time. Every area of English language learning can be accessed online on podcast. Thus, teachers can always upload any area they may want to lay emphasis on or find already existing lessons on podcasts. These platforms are already there but teachers need to find the internet sources for these platforms.

### **Digital Field Trips**

There are unlimited technological tools changing learning and reshaping the learning environment of the 21st Century. For instance, the physical field trips which help learners to navigate various linguistic fields of different English registers can also be effectively carried out through digital technology. This can help, not just in vocabulary enrichment and comprehension but also in exposure to different cultures and values. The digital field trips allow learners to travel the world and explore natural environments without leaving the classroom. Through such trips, a lot of contacts with native speakers is established. Each trip contains a video, a teacher-guide and student activities.

### **The evolving face of 21st Century English language classroom**

With the availability of these different capacity technologies for English language learning, the English language physical classroom will become more democratic as technology is changing the way that people live and learn. The major implication of technological advance in English language teaching and learning is that learners can now acquire the knowledge they desire without the teacher's interference or dictates. In the new dispensation of English language learning, there are clear demonstrations of the impact that language learning has on students. These are made manifest through projects that challenge students to reflect and ask how they themselves have grown and changed in positive ways. Public showcases, presentations to school community are ways they demonstrate new learning and talents. In the 21st Century language learning, Eaton (2010) notes that students collaborate with teachers to develop and own their portfolios to demonstrate new learning and progress as they showcase new learning and authentic language use. Rea-Dickins (2001) also notes that students can self-monitor and assess their progress, especially as more electronic portfolios are being used, thereby, taking responsibility for their learning as they go.

The UNESCO (2014) mentioned competency areas where students need to acquire skills to succeed in their chosen careers, all of which combine to define the demand of the world of work in the 21st century. On the top of employer's ranking of the skills required for employment in 21st century is communication, which includes verbal and written skills. In view of this, language teaching and learning should focus more on students' ability to understand, use and produce language in a variety of forms, for a variety of purpose, e.g., making requests, relaying information and messages to others in clear and unambiguous ways, understanding, instructions, rather than focusing on verbs and vocabulary lists. Classroom strategies and methods should reflect a change in the goals of teaching English.

Classroom approaches are becoming individualised, customizable and learner centred, focusing learner autonomy and collaborative

environments. It also includes appreciating and celebrating students' demonstration of knowledge in clear and tangible ways, celebrating individual talents, skills and aptitudes (Eaton, 2010). The ESL classroom should provide the value of language learning through stories and speech in demonstration of speaking and presentation skills as well as clear articulation of ideas. There could be second language speech contests, debates, poetry readings and storytelling. This can also lead to students demonstrating language learning by making their own videos, podcasts, blogs, wikis, and portfolios. These are some ways they can reflect the impact of language learning on their lives. They can use technology to share with others how productive/creative they have become rather than being just consumers of technology, through their technology backed creations and art and projects. In writing and reading activities, there are online English grammar editors, namely, grammar and spelling checkers, vocabulary enhancers and editing registers. There are also software packages that edit essays and detect stylistic elements such as repetitions and run-on sentences.

### **ESL Learning Assessments in the 21st Century**

Self-assessment and evaluation of learner's performance are being adopted in many developed countries, based on students' performance rather than content knowledge. Also, most examinations have changed from pencil-on-paper to computer based testing (UNESCO, 2014). There are other assessment strategies that are supported by technology, yet evolving. It is believed that as these generic software applications become largely available, developing nations like Nigeria will key into the assessment systems they enable and then exit the manual examination system currently operated in schools. Moreover, the recent global corona virus pandemic complications have advanced the advocacy for the use of digital technologies for teaching, learning and assessment in schools. To avoid physical human contacts on a large scale, reliance on digital technology use in the English language class becomes unavoidable. However, the availability and accessibility of the tools in developing countries is a challenge.

### **Challenges of teaching and learning English language in the 21st Century**

Technology has brought notable positive innovations into the ESL classroom but not without some challenges. One of the biggest challenges confronting the teaching and learning of English language today is the negative impact of technology on language learners. Learners are picking all manner of internet slangs and 'net speak' colloquial expressions and transferring them to their language vocabulary. Consequently, this is manifesting in grammatical errors, informal short forms and colloquial usages in formal places. Speaking and writing Standard English as well as reading efficiency are all negatively affected.

Another challenge, as noted by Quora (2021), is language teachers' knowledge and application of the digital tools. Many times, language teachers are not exposed to the usage of these teaching tools while some do not have access to them. Equally, some learners are located in places that have no access to internet facility and power supply. For such locations, it will be difficult keying into the global learning communities.

Also, the use of these digital tools can distract the students from the main purpose of learning as some of them use them for wrong motives.

### **Conclusion**

The 21st Century has ushered in tremendous changes in the education industry through the advent and proliferation of digital technological tools. The English language classroom is not spared in this transformation. This development in the world of technology has brought a change in the socio-economic and political world order which now requires new skills for optimum operation. This change now demands a rearrangement of the education goals to align with the new order. Hence, there is need for the adaptation of the changes in the new order to reflect in the English language curriculum of the 21st century. English Language learners should learn new ways of communicating as they acquire new digital operation skills that will sell them in the new order job market.

## Recommendations

In view of the challenges bedeviling technological inclusion into the school system at a time like this, the following recommendations are made:

- i) That developing countries like Nigeria should key into the new world order by providing necessary and enabling environment for language learners, especially at the secondary school level to connect to the global learning environment. To this end, digital tools and internet as well as power supply should be made available.
- ii) That teachers of English language should be trained and encouraged to acquire these new skills to enable them transfer the knowledge.
- iii) That educational curriculum should spell out these new skills and specify their step-by-step implementation strategies in the classroom.
- iv) That local communities should be enlightened on the developments in the new world of technology and how it is affecting their lives. This will encourage them to seek for skills that can sustain them and their generations in the emerging age of production and technology. Through this, parents and guardians will be encouraged to provide skills-enabling technological tools for their wards for sustenance and empowerment.

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