

A STUDY OF THE PROSPECTS AND CHALLENGES DIGITAL TECHNOLOGY IN ENGLISH LANGUAGE PEDAGOGY

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Abstract

This paper is an investigation into how digital technology contributes to the pedagogy of English especially in the tertiary institution of learning. The outcome has not only exposed the challenges; it has also introduced the prospects in the new order. The study used the virtual survey method in which questionnaires were given to Higher National Diploma (HND) and National Diploma (ND) students of selected Departments in Yaba College of Technology, Yaba, Lagos, Nigeria, where English is taught as a general course. Data derived from the questionnaire were subjected to statistical data to determine how digital technology has influenced the teaching and learning of English in the college.

Keywords: Digital Pedagogy, Computer, Social Media, Internet, Artificial Intelligence

Introduction

English language occupies an enviable position today and so is the teaching of it. People all over the world are gravitating towards the learning of English language, having realized the need to function effectively in the global sphere. This global positioning of the English language has made the learning of English imperative for many and has made the teaching of English very lucrative owing to the demand for

the learning of the language. Not only that English language teachers are in high demand, but also, English teaching pedagogies have evolved with the time and technologies. The advent of emerging technologies has resulted in new teaching methods which accommodate these technological advancements.

Although a welcomed development in most parts of the world especially the west, digital technology is not fully implemented in the third world nations such as Nigeria. Our educational system which still relies on the traditional face-to-face classroom instruction, and assessment could not cope with the situation presented by the Covid19 pandemic. The aftermath of the covid-19 lockdown has further exposed the lapses that exist in our system in terms of digital learning and the readiness of both teachers and learners to embrace technological advancement. Before the pandemic year, Yaba College of Technology, where our study was conducted had already adopted the Computer Based Test (CBT) mode of examination for some courses but was yet to fully adopt blended learning which accommodates both digital and traditional methods of teaching. And so, when Covid 19 struck, the unpreparedness laid bare for the world to see. The Nigerian Education system was not prepared for the challenges presented at that time, whereas other developed nations which had embraced technology before then continued learning from home. We struggled and are still struggling with digital learning. We have observed that certain factors are responsible for the challenges experienced by both teachers and learners in the quest to embrace digital learning which undeniably has come to take the centre stage. This paper therefore is an attempt to unveil the myth behind the difficulties that lecturers and students have experienced while engaging digital technology in the teaching and learning of English language as a course.

Specifically, the paper sets out to:

- i. Identify the challenges associated with the use of digital technology in the teaching and learning of English

- ii. ii. Determine the possible ways of dealing with the challenges associated with digital learning of English
- iii. Identify the digital technologies that will enhance the learning of English

The following research questions echo the set objectives:

- i. What are the possible challenges that students encounter in the use of digital technologies for learning English?
- ii. How can we ameliorate the challenges associated with digital learning of English? iii. In what ways can digital technologies enhance the teaching /learning of English?

Digital Technology

The word 'digital' is derived from the Latin word, 'digitus', meaning figure. It refers to one of the oldest tools of counting. Digital technologies refer to any electronic tools, systems, devices, and resources that can generate, store, or process any kind of data. It is an umbrella term that refers to all appliances that depend on digital technology to function. Digital technologies have advanced more rapidly than any innovation in the history of humanity and it is still evolving. On the other hand, digital learning is any type of learning that uses digital technology to enhance learning. One of the core breaking grounds of digital technology is the blurring of boundaries and connectivity. Thus, digital technology is fast becoming an integral part of education, especially at the tertiary levels, where it has evolved from its use for research purposes alone, to classroom instruction. Let us examine some digital technologies below.

Smart Phones: These include smart devices such as mobile phones, tablets, etc. that perform almost equal functions to those of personal computers. For instance, apart from texts and calls, they can also be used for other smart applications like WhatsApp, YouTube, Facebook, and so on. They are learning tools. The emergence of

smartphones has enhanced learning that transcends time and geographical limitations (Noah,.2019). Church and Oliviera et al (2013) as quoted in Nawaila and Husseyin (2018) assert that the simplicity in terms of data sharing (contact list) or media content such as sound/voice, video files, pictures and location, has drawn the attention of many users to smart phones, especially in places where there is restriction on the use of certain mobile applications.

Social media: According to Michael Dewing (2010), social media refers to the wide range of internet-based and mobile services that allow users to participate in online exchange, contribute to usercreated content, or join online communities. Such digital platforms are used for interaction, networking, learning and general communication purposes. For instance, media sharing sites Facebook, Instagram, LinkedIn, YouTube, Twitter, blogs, etc.

Video Streaming: Video streaming is a term applied to the compression and buffering techniques that allow one to transmit and view a video in real time through the internet (Hartsell and Yuen 2006). There are many applications for video streaming for instance, Skype or web-based services such as Zoom, Google Meet, and other similar platforms. Live streaming is greatly enhanced using sites such as YouTube. YouTube provides numerous other viewing options for information and entertainment and educational resources.

E-Books: they are digital alternatives to the traditional print. EBooks enable users to access a wide range of reading/study materials from a single device as opposed to carrying around heavy books and materials.

Computers: these are the most common digital appliances that are useful for learning and research purposes. They include laptops, desktops, tablets and other forms of computer which depend on digital technology to function. The advent of computers has redefined literacy as not just the ability to read and write, but also the ability to use the computer (Akanbi. and Akanbi 2012).

Artificial Intelligence (AI) Tools: these are the most recent tools that have saturated the educational sphere. Applications such as

ChatGPT, Gemini, Meta AI, etc., are widely used especially for research purposes.

The Contribution of Digital Technology to the Teaching and Learning of English Language

The contributions of digital technology towards English language learning and teaching are quite significant and worthy of note, especially in the 21st century. This development began at the wake of modern library in the 1600s with the introduction of projectors, radio, mime graph, video tapes, photocopier, slide ruler, computers, the internet and interactive white board and of course, the advent of social media, smart phones and other technologies. The aftermath of the covid-19 pandemic has not only exposed the vulnerability of the current educational system but has also highlighted the importance of digital literacy development in our educational system globally (Shazia and Sunishtha. 2020).

Theoretical Framework

This paper adopts the Connectivism theory. It was first introduced by George Siemens and Stephen Downes in 2005 through an article published online by Siemens in 2004 titled; Connectivism: Learning as a Network Creation and Downes' An Introduction to Connective Knowledge in 2005. This publication stressed the important role the new technology plays in the learning process and how the digital age has increased the speed at which students have access to information.

Connectivism theory accepts that technology is a major part of the learning process and that our constant connectedness gives us opportunities to make choices about our learning. The theory also promotes group collaboration and discussion, allowing for different viewpoints and perspectives in terms of decision-making, problemsolving, and making sense of information. Connectivism

encourages learning that takes places outside of an individual, such as through social media, online networks, blogs, or information databases. It provides insights into learning skills and tasks needed for learners to flourish in a digital era. This theory comes in handy to the topic under investigation as it helps us to understand the need for digital intelligence among lecturers and students in order to remain relevant.

Methodology

The paper adopted Statistical Package for the Social Sciences (SPSS) for the analysis of the data for this research considering its appropriateness to the study. SPSS is specifically used for the analysis of statistical data. It is a program/ software that can be used to perform data entry and analysis, create tables and graphs, and show percentages. It is a package used for data analysis in the social sciences. It can perform basic statistic functions such as descriptive statistics to determine variance, frequency distribution, among others. To simplify data processing, SPSS allows you to rearrange your data, rename your group and edit as many times as may be required.

To achieve the aim of this study, a descriptive analytical approach was adopted by providing survey questions for students virtually.

The survey questions targeted the Ordinary National Diploma, year one (ND1 and 2) and Higher National Diploma year one (HND1) students across various schools within Yaba College. The schools within the college are School of Technical Education, School of Engineering, School of Management and Business Studies, School of Environmental, School of Science, School of Liberal Studies, and School of Technology.

The two groups, ND1 and HND 1 were chosen because they are both at entry level stages for national diploma and higher national diploma programs respectively, and all the schools (faculties) in the College were covered.

The research provided 21 questions for students. 19 were close ended questions and 2 were open ended questions. The questions which are divided into three sections were based on the purpose and

objectives of the research. The first section solicited responses based on demographic variables such as age, gender, school, and academic year (students only). The second section provided close ended questions to determine the perception towards digital technologies while the last section provided open ended questions, to give room for expressions to

School of Technical Education	8.5%
School of School of Engineering of	28.5%
School of School of Management and Business Studies	10.8%
School of Environmental	5.0%
School of Science of	1.8%
School of Liberal Studies	42.4%
School of Technology.	3.0%
Total	100%

identify various challenges that may not have been captured in the close ended questions. The data was analysed descriptively with the aid of SPSS23.

Analysis And Discussion of Findings

A total of 400 responses were generated on the students' platform while 26 responses were generated on the teachers' platform.

a) Students' Survey on Gender

1. For the first question to determine the gender of the students who responded to the questionnaires, 58.8% were males and 41.2% were females.

GENDER	PERCENTAGE
MALE	58.8
FEMALE	41.2
TOTAL	100%

b) Students' Survey on School

Question 2 generated responses for the name of the school of each respondent. Figure table 2 below shows the details.

c) Students' Survey Showing the Academic Year

CLASS	Percentage
OND	49.2%
HND	50.8%
TOTAL	100%

Figure table 3

Question 3 generated responses for the students' academic year which showed 4\50.8% for HND students and 49.2% for the OND students.

d) STUDENTS SURVEY ON AGE

Figure table 5

Age	Percentage
16-25	86.3
26-35	13.5
36-50	0.2
TOTAL	100%

Table figure 5 above shows generated responses for age, and the review showed that students between the ages 16-25 were 345 in number which is 86.3%, ages 26-35 were 54 in number which is 13.5%, for ages 36-50 one response was received which is 0.2% while from 50 and above generated no response

In Question 5, "Do you think that digital technology should be used for imparting English lessons?"

	Percentage
Yes	95.5
No	4.5
TOTAL	100%

382 responses agreed that digital technology should be used. This gave 95.5% while 18 respondents disagreed which is only 4.5%. This proves

that majority of the students have a positive perception towards the use of digital technology for learning English as seen in table figure 6 below.

Figure 6

Question 6 asked “Which of the digital technology platforms are you familiar with?” This question presented different social media platforms such as; Zoom, YouTube, Google Meet, WhatsApp, or Telegram. Figure table 7 below shows the details.

	Percentage
Zoom	17.1
YouTube	11.0
Google Meet	8.4
WhatsApp	48.8
Telegram	13.1
Twitter	1.6
Total	100.0

WhatsApp was the platform with the highest number of users as 186 respondents selected the option making it 48.8%. Zoom had 65 users with 17.1%, Telegram had 50 users with 13.1%, YouTube 42 with 11.0% Google meet 32 with 8.4% and Twitter with 6 and 1.6%.

For question 7 which asked, “Would you say digital technology is very efficient in receiving lectures?”, 318 respondents agreed while 82 disagreed, giving 79.5% and 20.5% respectively. This is shown in the table below.

	Percentage
Yes	79.5
No	20.5
Total	100

Figure table 8

In question 8, “Do you consider computer- based teaching activities such as YouTube videos more interesting and easier to understand compared to the traditional method of teaching in the classroom?” 234 respondents agreed while 166 disagreed, which gave 58.4% and 41.6 % respectively.

	Percentage
Yes	58.4
No	41.6
Total	100

In question 9, “Would you say the different resources like video chips, films, CDS, recorder are helpful in developing your English language skills?”

	Percentage %
Yes	92.5
No	7.5
Total	100

370 respondents agreed while 30 respondents disagreed which gave 92.5% and 7.5% respectively.

Question 10, “To what degree would you consider WhatsApp texts and voice notes effective in lecture delivery?”

	Percentage %
Not effective	11.0
Fairly effective	46.9
Effective	30.1
Very effective	12.0
	Total
	100%

The chart above show that 187 (46.9%) respondents claimed that WhatsApp texts and voice notes are fairly effective in lecture delivery, 121 (30.1%) respondents claimed they are effective, 48 (12.0%) claimed they are effective while 44 (11.0%) respondents claimed not effective.

Question 11, “Would you consider the use of internet an effective and efficient aid in writing assignments, reports, projects, etc.?”

	Percentage %
Yes	95.0
No	5.0
Total	100

The table above shows that 379 (95.0%) respondents agreed that the use of internet is an effective and efficient aid in writing assignments, reports, projects and so on. However, 21 (5.0%) respondents disagreed.

Question 12, “Do you think the use of digital technology promotes the development of creativity, innovative ideas and provides easy information?”

	Percentage %
Yes	98.5
No	1.5
Total	100

Review showed that 394 (98.5%) respondents agreed that the use of internet is an effective and efficient aid in writing assignments, reports, projects and so on. However, 8 respondents which is only 1.5% disagreed.

Question 13, “Does the use of digital technological devices in English teaching help to sustain your interest and others in the class?”

	Percentage %
Yes	91.9
No	8.1
Total	100

The table above shows that 369 (91.9%) respondents agreed that the use of digital technological devices helps to sustain students’ interest in learning English. However, 31 (8.1%) respondents disagreed.

Question 14, “How would you rate students’ acceptability of online lecturers?”

	Percentage %
Poor	13.8
Fair	40.1

Fairly good	37.6
Very good	8.5
Total	100%

The table shows that 34 (8.5%) respondents claimed very good, 151 (37.6%) respondents claimed fairly good, 160 (40.1%) claimed fair and 55 (13.8%) claimed poor.

Question 15, “Does the use of digital technology help in enhancing your language skills?”

	Percentage %
Yes	94.5
No	5.5
Total	100

The figure above shows that 376 (94.5%) respondents agreed while 24 (5.5%) respondents disagreed to the point that digital technology helps to enhance their language skills.

Question 16, “Do you enjoy digital learning?”

	Percentage %
Yes	94.5
No	5.5
Total	100

In the table above, the respondents were asked to show if they enjoyed learning via the use of digital platforms. It shows that majority of the respondents enjoy digital learning as 376 which is 89% agreed while 24 respondents which is 5.5% disagreed.

Question 17, “What challenges are you having with digital technology?”

	Percentage %
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Lack of skills/training	5.9
Data/ internet subscription	73.0
Lack of smart phone	6.4
Computer literacy	3.6
Total	100%

The question was to evaluate some of the challenges that students encounter with the use of digital technology and a review shows that respondents who claimed data or internet subscription were more than all other options provided, which means that it was the major reason why digital technology may not be considered among others. 286 (73%) respondents claimed, “data and internet subscription”, 25 (6.4%) claimed “lack of smart phone”, 23 (5.9%) respondents claimed, “lack of skills and training”, 14 (3.6%) respondents claimed, “computer literacy”.

Question 18, “What do you think would help you improve your digital skills?”

	Percentage %
Training	30.8
Free internet access	62.4
Free smart phones	6.7
Total	100%

The table above presents data showing that 255 (62.4%) respondents suggested free internet access should be provided to every student in the college, 119 (30%) suggested trainings, while 26 (6.7) respondents suggested that free smart phones should be provided to help improve their digital skills.

The third section comprises open ended questions which gave students the liberty to express their opinions.

Question 19, “What challenges do you encounter while using any of the digital technologies to learn?”

		Percentage %
Poor network		62.6
Poor/Inadequate power supply		2.1
Ineffective when compared to physical classes		8.9
Computer illiteracy		2.1
High cost of data subscription		23.6
None		0.7
	Total	100%

In the figure above, a review shows that 276 participants responded to the question, and out of the total number of respondents, 173 (62.6) complained of poor network, 65 (23.6) respondents complained of high cost of data subscription, 24 (8.9%) complained that the use of digital technologies is less effective when compared to physical classes, 6 (2.1%) respondents complained of both inadequate power supply and computer illiteracy, while 2 (0.7%) respondents had no complaint at all.

Question 20, “What do you appreciate most about the use of digital technology in receiving lectures?”

		Percentage %
Easy and unlimited accessibility		46.2
Effective		9.5
Privacy		.3
Language skill development		4.6
Comfortable		26.8
Easy to understand		8.4
Nothing		4.2
Total		100%

The frequency table above clearly reveals that students appreciate digital technology because it is easy and has unlimited accessibility. 131 (46.2%) respondents confirmed the claim, 76 (26.8%) claimed it is comfortable, 27 (9.5%) claimed it is effective, 24 (8.4%) claimed it is easy to understand, 13 (4.6%) claimed that they preferred

digital technologies because it aids language skill development, 1 (0.3%) appreciate it because of its privacy while 12 (4.2%) claimed they do not appreciate digital technologies for any reason.

Cross Tabulation

In this section, two variables are put together against each other to quantitatively analyse them. Age and Gender variables have been analysed to identify the possibilities of how age and gender can play deviant roles in the use of digital technologies for learning English. Age and Gender are used to determine two different questions;

- a) To confirm if age and gender play a significant role in the choice between learning via computer social platforms or sticking to the traditional method of teaching in the classroom.

Do you consider computer- based teaching activities such as YouTube videos more interesting and easier to understand compared to the traditional method of teaching in the classroom?

Gender				Age			Total
				16-25	26-35	36-50	
Female	Do you consider computer- based teaching activities such as YouTube videos more interesting and easier to understand compared to the traditional method of teaching in the classroom						
			Yes	46.1%	11.5%	0.0%	57.6%
			No	35.8%	6.1%	0.6%	42.4%
	Total						
				81.8%	17.6%	0.6%	100.0%
Male	Do you consider computer- based teaching activities such as YouTube videos more interesting and easier to understand compared to the traditional method of teaching in the classroom						
			Yes	48.7%	10.3%		59.0%
			No	40.6%	0.4%		41.0%
	Total						
				89.3%	10.7%		100.0%

Total	Do you consider computer- based teaching activities such as YouTube videos more interesting and easier to understand compared to the traditional method of teaching in the classroom	Yes		190	43	0	233
				47.6%	10.8%	0.0%	58.4%
		No		38.6%	2.8%	0.3%	41.6%
Total				86.2%	13.5%	0.3%	100.0%

In this cross tabulation, a review shows that 76 (46.1%) females between the ages of 16-25 consider computer-based teachings on such as YouTube videos more interesting and easier to understand compared to the traditional method of teaching in the classroom as against 114 (48.7%) males who find computer-based teachings easier than the traditional teaching method.

Females between ages 26-35 were 19 (11.5%) in number compared to 24 (10.3%) who find computer-based teaching easier. There was no male of female (0.0%) between ages 36-50 who considered computer-based teachings easier than the traditional method of teaching in the classroom.

However, record also shows that females between ages 16-25 who disagreed to the notion that computer-based teachings are better than the traditional methods were 59 (35.8%) in number while males between the same age bracket were seen to be 95 (40.6%).

Age bracket of 26-35 had 10 (6.1%) female respondents who disagreed but males between the same age bracket had just 1 (0.4%) who disagreed. While between ages 36-50, one (0.6%) female respondent disagreed, no male in the same age group disagreed.

Would you say the different resources like video chips, films, CDS, recorder are helpful in developing your English language skills? * Age * Gender Cross tabulation							
Gender				Age			Total
				16-25	26-35	36-50	
Female	Would you say the different resources like video chips, films, CDS, recorder is helpful in developing your English language skills?						
			Yes	74.5%	17.0 %	0.6%	92.1%
			No	7.3%	0.6%	0.0%	7.9%
	Total						
				81.8%	17.6 %	0.6%	100.0%
Male	Would you say the different resources like video chips, films, CDS, recorder are helpful in developing your English language skills?						
			Yes	82.5%	10.3 %		92.7%
			No	6.8%	0.4%		7.3%
	Total						

	films, CDS, recorder are helpful in developing your English language skills?						
			No	7.0%	0.5%	0.0%	7.5%
	Total						
		86.2%	13.5 %	0.3%	100.0%		
			89.3%	10.7 %		100.0%	
Total	Would you say the different resources like video chips,						
			Yes	79.2%	13.0 %	0.3%	92.5%

Conclusion

In conclusion, there are few challenges with the use of digital technology that need to be addressed. Record shows that poor network and high cost of data were the major challenges students with the use of digital technologies. From the analysis, poor network accounts for about 62% of the respondents claim while high of data was 23.6%. Furthermore, records revealed that students embrace the use of digital technologies for the development of language skills. Also, the use of different resources like video clips, film, CDs, recorders are considered helpful tools in developing the English language skills.

RECOMMENDATIONS

This paper recommends the following;

- a) Schools should provide free internet services for students in the classroom and hostels to encourage the use of digital technologies in learning.
- b) Teachers should ensure blended learning is adopted, which is the combination of the traditional methods of teaching alongside teaching with the use of digital technologies.
- c) Teachers should be more interactive online to enable students contribute.
- d) Teachers should not make the online discussions too long, in order not to lose the interest of the students.

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- 151 DUTSIN-MA JOURNAL OF ENGLISH AND LITERATURE (DUJEL) Vol 11, No 2, 2026
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